The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §§312.1 - 312.13, 312.41 - 312.50, 312.61 - 312.68, 312.81 - 312.83, 312.121, 312.122, 312.141 - 312.147, 312.149, and 312.150; proposes new §312.123 - 312.130; and proposes repeal of §312.123.

Background and Summary of the Factual Basis for the Proposed Rules

The proposed rulemaking clarifies the intent of existing rule requirements, remove inconsistencies, and improve readability. The proposed rulemaking includes administrative and technical changes. The administrative changes include renaming "sewage sludge" to "biosolids" as it pertains to beneficial land use and "water treatment sludge" to "water treatment residuals" to be consistent with accepted industry terminology; revising existing and adding new definitions to clarify rule intent; clarifying the notice requirements for permits to be consistent with Texas Health and Safety Code (THSC), §361.121(c), and current transporter rules so they are more enforceable. The technical changes include clarifying the following: the existing prohibition on the land application of any mixture of biosolids with grit trap or grease trap waste; the applicability of buffer zone requirements to existing authorizations; the applicability of an individual permit requirement for a sewage sludge or domestic septage processing facility; the applicability of storage and staging requirements of domestic septage; and the requirements for the land application of water treatment residuals to be consistent with longstanding TCEQ practice.
Section by Section Discussion

The commission proposes various non-substantive changes throughout the chapter to conform to Texas Register requirements and the executive director’s current practices and guidelines. These proposed changes include: improving the rule structure; defining and using consistent terms; correcting grammatical, syntactic, and typographical errors; updating cross-references; and assigning titles to equations (such as Equation B.1). These non-substantive changes are not addressed in this Section-by-Section Discussion.

Additionally, certain terms were revised to prevent ambiguity by clarifying the term used, using consistent terms where the meaning is the same, and using defined terms. These changes are non-substantive and are not addressed in this Section-by-Section Discussion.

Throughout the proposed rulemaking, the commission proposes to differentiate between "sewage sludge" (which does not meet Class A, AB, or B pathogen and vector attraction reduction requirements) and "biosolids" (which is sewage sludge that has been treated to meet Class A, AB, or B pathogen and vector attraction reduction requirements). Due to these proposed changes, the commission also proposes to replace "annual whole sludge application rate" with "annual whole application rate," and "water treatment sludge" with "water treatment residuals." These proposed changes are consistent with accepted industry terminology. These changes are not
addressed in this Section-by-Section Discussion.

§312.1, Purpose

The commission proposes to amend §312.1 to include "biosolids" and "water treatment residuals" due to their applicability to the purpose of the rules. The commission is proposing to remove the following sentence, "The standards applicable to the disposal of water treatment sludge are included" since water treatment residuals was combined with the list of other materials previously listed in the subsection.

§312.2, Applicability

The commission proposes to amend §312.2 by including biosolids and water treatment residuals to the applicability of the chapter.

§312.3, Exclusions

Throughout this section, the commission proposes to replace "does not establish requirements for" to "does not authorize" to provide clarification on activities that are not authorized under the rules.

The commission proposes to amend §312.3(f), to include water treatment residuals to be consistent with longstanding TCEQ practice.

The commission proposes to amend §312.3(h) by splitting the subsection into two
subsections and re-letter the subsequent subsections in order to improve readability. This separates the exclusions related to storage and staging from the exclusions related to processing, use, or disposal. The commission is proposing to include "grit trap waste" in the list of wastes that are not authorized for processing, use, or disposal under the chapter.

The commission proposes to amend re-lettered §312.3(m) to "grease trap waste, grit trap waste" to distinguish grease trap waste and grit trap waste as two separate types of waste. The commission is also proposing to add a statement to clarify that the chapter does not authorize land application of the listed wastes, whether processed or unprocessed, that have been commingled with biosolids, sewage sludge, domestic septage, or water treatment residuals.

The commission proposes to amend re-lettered §312.3(n), by adding "biosolids or domestic septage" to clarify that the chapter does not allow for the registration of processing operations, thus requiring a permit for such activity.

The commission proposes §312.3(o), to state that the chapter does not authorize sewage sludge, biosolids, or domestic septage processing operations unless the processing occurs at a treatment works. If adopted, and after the effective date of this rulemaking, any sewage sludge, biosolids, or domestic septage processing operations that are not located at a treatment works would be required to seek authorization
under 30 TAC Chapter 330 (Municipal Solid Waste) or Chapter 332 (Composting), and a processing authorization under Chapter 330 or 332 may be authorized in accordance with this chapter for the final use and disposal. The commission also proposes a savings clause to allow any processing permit that was issued prior to the effective date of these amendments, to continue under the rule requirements as they existed prior to the effective date of these amendments.

§312.4, Required Authorizations or Notifications

The commission proposes to amend §312.4(a), to include "biosolids, or water treatment residuals in a monofill" to clarify the type of water treatment residuals disposal that requires a permit. This type of authorization has always been required for water treatment residual disposed of in a monofill. The commission phrase "in a monofill" only applies to water treatment residuals, not sewage sludge or biosolids.

The commission proposes to delete §312.4(a)(1), because all Class B land application registrations have expired or transitioned to a permit. Therefore, this requirement is no longer needed. Subsequent paragraphs have been renumbered.

The commission proposes to amend §312.4(b)(1), to clarify that Class A or Class AB biosolids should not meet metal limits, but instead not exceed the metal limits. The commission is also including the word "meets" when describing the pathogen reduction and vector attraction reduction requirements, as biosolids are required to
The commission proposes to amend §312.4(b)(4), to change the date due from September 1st to September 30th for Class A and Class AB biosolids annual reports and to include the reporting period. The proposed due date is consistent with the Class B biosolids annual report due date and will allow Class A and Class AB biosolids notification holders time to submit their reports since the reporting period ends on August 31st.

The commission proposes to amend §312.4(c)(1), to remove the effective date of September 1, 2003 because all Class B registrations have expired or transitioned to a permit. Therefore, this date is no longer needed.

§312.6, Additional or More Stringent Requirements

The commission proposes to amend §312.6, to include biosolids, domestic septage, and water treatment residuals to be consistent with longstanding TCEQ practice. The commission proposes changing "public health" to "human health" to clarify that the requirements should be protective of all people. The commission proposes removing the word "pollutant" since there may be adverse effects from non-pollutants (e.g., odor, nuisance conditions, etc.) that could trigger the executive director to impose more stringent requirements than those in the chapter.
§312.7, Sampling and Analysis

The commission proposes to amend §312.7(a), by including water treatment residuals in the types of materials that are required to be sampled. Water treatment residuals shall be analyzed for pollutants when land applied or placed on a surface disposal site.

§312.8, General Definitions

The commission proposes to amend §312.8(2), "Active sludge unit" by changing the term to "Active disposal unit." In addition, the commission proposes to include domestic septage and water treatment residuals in the definition since both types of wastes can be placed on an active disposal unit.

The commission proposes to amend §312.8(6), "agronic rate" by removing the word "sludge" from the definition. The proposed change is to clarify that an agronomic rate is not limited to sludge. The commission also proposes to amend §312.8(6)(B), by removing "in the sewage sludge" so that the amount of nitrogen is not just limited to sewage sludge, and by removing "grown on the land" to improve readability.

The commission proposes to amend §312.8(9), "Annual whole sludge application rate" by changing the term to "annual whole application rate." The change is proposed to clarify that an annual whole application rate is not limited to sludge. The change also includes amending the definition by including "domestic septage, or water treatment residuals" among the types of wastes that are subject to an annual whole application
rate.

The commission proposes to delete §312.8(11), "Apply sewage sludge or sewage sludge applied to the land" because the term has been replaced throughout the rule to land apply or land application. Subsequent definitions have been renumbered.

The commission proposes to amend renumbered §312.8(13), "Beneficial use" by replacing "placement" with "land application" because placement is used in the chapter in reference to surface disposal which is not beneficial use. The commission also proposes to add "domestic septage" and "water treatment residuals," because these materials can be land applied for beneficial use. Additionally, the definition includes food, fiber, feed, or turf as the crops are used for beneficial use and harvested. "Cover crop" has been removed since these crops are not harvested, thus making them non-beneficial.

The commission proposes §312.8(14), "Beneficial use site" to define the property boundaries surrounding one or more land application units. Subsequent definitions will be renumbered.

The commission proposes §312.8(15), "Biosolids" to differentiate this material from sewage sludge. Subsequent definitions will be renumbered.
The commission proposes §312.8(25), "Debris." The definition is similar to the previously defined term “Sewage sludge debris.” Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(28), "Disposal" by including "biosolids," "domestic septage," and "water treatment residuals" to clarify that the act of disposal would apply to these types of wastes.

The commission proposes §312.8(29) and (30), "Disposal unit" and "Disposal unit boundary." These definitions are similar to the previously defined term "sludge unit" and "sludge unit boundary." Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(37), "Feed crops" by including "horses" to the list of domestic livestock examples that consume feed crops.

The commission proposes §312.8(43), "Grease trap waste" to differentiate grease trap waste from grit trap waste. Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(47), "Harvesting" by clarifying that harvesting means the removal of crops from the land application unit. Also, to clarify that the act of cutting and leaving vegetative material on the land application unit is not considered removal.
The commission proposes §312.8(49), "Incinerator" to clarify that when this commonly understood term is used in the chapter, it is limited to incinerators that burn sewage sludge or biosolids only. Subsequent definitions will be renumbered.

The commission proposes §312.8(53), "Irrigation conveyance canal" to provide clarity and improve understanding when the term is used in the chapter. Subsequent definitions will be renumbered.

The commission proposes §312.8(54), "Lagoon." The definition is similar to the previously defined term "Sewage sludge lagoon." Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(55), "Land application or land apply or land applied" by including "domestic septage" and "water treatment residuals" among the types of material that can be land applied. Sewage sludge is being removed from the types of material that can be land applied, because sewage sludge does not meet the criteria for land application.

The commission proposes §312.8(56), "Land application unit" to provide clarity and improve readability when the term is used in the chapter and to differentiate between land application unit and disposal unit. Subsequent definitions will be renumbered.
The commission proposes to amend renumbered §312.8(64), "Metal limit" by including "water treatment residuals" to clarify that metal limits apply to water treatment residuals.

The commission proposes to amend renumbered §312.8(65), "Monofill" by including "biosolids" and "water treatment residuals" among the types of materials that can be disposed of in a monofill.

The commission proposes to delete §312.8(75), "Sewage sludge debris" as this term has been revised to and defined as "debris." Subsequent definitions have been renumbered.

The commission proposes to delete §§312.8(76) – (78), "Sludge lagoon," "Sludge unit," and "Sludge unit boundary" as these terms have been revised to and defined as "Lagoon," "Disposal unit," and "Disposal unit boundary." Subsequent definitions have been renumbered.

The commission proposes to amend renumbered §312.8(77), "Precipitation" to clarify the climatic conditions that would prevent land application of biosolids or domestic septage.

The commission proposes §312.8(88), "Stabilization" to define it as a sewage sludge
The commission proposes to amend renumbered §312.8(89), "Staging" by including "biosolids, domestic septage, and water treatment residuals" among the types of materials that can be staged.

The commission proposes to amend renumbered §312.8(90), "Store or storage" by including "biosolids, domestic septage, and water treatment residuals" among the types of materials that can be stored. The commission also proposes the addition of the phrase "or in an enclosed vessel" to clarify that storage in an enclosed vessel must meet the storage requirements within the chapter.

The commission proposes §312.8(92), "Surface impoundment" to provide clarity when the term is used in the chapter. Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(94), "Three hundred-sixty-five-day period" by replacing "cover" with "feed, food, fiber, or turf" to distinguish between what is grown for harvest for beneficial use.

The commission proposes to amend renumbered §312.8(97), "Treat or treatment" by including "biosolids, domestic septage, or water treatment residuals" as these types of material can be treated. Additionally, the commission is amending the definition to
note that initial alkali addition for pathogen or vector control is considered processing but that subsequent alkali addition for pathogen or vector control is not considered processing.

The commission proposes to amend renumbered §312.8(98), "Treatment works" by clarifying that a treatment works is located at an authorized wastewater treatment plant. Sewage sludge or biosolids treatment at a beneficial use site or surface disposal site is not a treatment works.

The commission proposes §312.8(99), "Turf crop" to provide clarity when the term is used in the chapter. Turf crop is being added in the rule to allow the production of turf as a beneficial use. Subsequent definitions will be renumbered.

The commission proposes §312.8(104), "Waste pile" to provide clarity when the term is used in the chapter. Subsequent definitions will be renumbered.

The commission proposes to amend renumbered §312.8(105), "Water treatment sludge" by changing the term to "Water treatment residuals" for consistency with accepted industry terminology.

§312.9, Sludge Fee Program

The commission proposes to amend the title of §312.9, from "Sludge Fee Program" to
"Fee Program" because the section applies to materials other than sewage sludge.

The commission proposes to amend §312.9(b) by including the reporting period of September 1st of the previous year to August 31st of the current year to clarify the time period of the annual report information that is due on September 30th.

The commission proposes to delete §312.9(b)(3), since there are no sewage sludge or water treatment plant sludge disposal sites that were authorized by the commission or predecessor agency prior to October 1, 1995. Subsequent paragraphs are renumbered.

The commission proposes to amend renumbered §312.9(b)(4), to clarify that the $0.20 per dry ton fee also applies to water treatment residuals that are applied for beneficial use.

The commission proposes to amend §312.9(d) by removing the word "Sludge" because the subsection also pertains to other types of materials.

§312.10, Permit and Registration Applications Processing

The commission proposes to amend §312.10(e) and (f), to improve readability and to include permits for the disposal of water treatment residuals in a monofill to be consistent with longstanding TCEQ practice.
§312.11, Permits

The commission proposes to amend §312.11(a), to include land application of Class B biosolids and the disposal of water treatment residuals in a monofill as requiring a permit. These changes are consistent with longstanding TCEQ practice.

The commission proposes to amend §312.11(c)(1)(B)(i), by replacing "site to be permitted" with "land application unit" to be consistent with Texas Health and Safety Code, §312.13(b)(3)(B) and §361.121(c). The commission also proposes to remove references to applications submitted on or after September 1, 2003 because all applications submitted before that date have been processed.

The commission proposes to amend §312.11(c)(1)(B)(ii), to clarify the "site to be permit" as the disposal unit or incinerator and for consistency with §312.11(c)(1)(B)(i).

The commission proposes to amend §312.11(d)(2)(A) and (3)(A), (f), and (i) to improve readability.

§312.12, Registrations

The commission proposes to delete §312.12(a), because all Class B land application registrations have expired or been replaced with permits. Subsequent subsections have been re-lettered.
The commission proposes to amend re-lettered §312.12(a)(1)(i) and (J)(i) to improve readability.

The commission proposes to amend re-lettered §312.12(a)(2) to require notice of changes in the source of water treatment residuals. This change is consistent with longstanding TCEQ practice.

§312.13, Actions and Notice

The commission proposes to amend §312.13(b)(3)(B) by changing "proposed land application site" to "proposed land application unit" for consistent use of a defined term.

The commission proposes to amend §312.13(c)(1), by excluding a registration for beneficial land use or disposal of water treatment residuals in a land application unit, surface impoundment, or waste pile from the public notice requirements of the subsection.

The commission proposes to amend §312.13(d), by changing "utilized" to "considered" when determining what action to take on an application if written comments are submitted during the 30-day public comment period. This change is to clarify that comments submitted during the 30-day public comment period are taken into
consideration when reviewing a registration application and may result in, but do not necessarily require, additional review of the application based on the issues raised in a particular comment.

§312.41, Applicability

Throughout the section, the commission proposes to replace "meets" with "do not exceed" with regard to metal limits. Using the terminology of "meets" concentrations implies that the biosolids should contain a certain amount of metals to meet a minimum concentration. Changing the terminology to "do not exceed the metal concentrations" more clearly identifies the concentrations as a maximum limit which should not be exceeded. Replacing "meets" with "do not exceed" for metal concentrations then requires the changes to the remainder of the sentence to include "meets" for stating that the material must meet pathogen and vector attraction reduction requirements in the rule.

The commission proposes to amend §312.41(d), "public health" to "human health" to clarify that the requirements should be protective of all people.

§312.42, General Requirements

The commission proposes to amend §312.42(b), by replacing "meets" with "do not exceed" with regard to metal limits. Using the terminology of "meets" concentrations implies that the biosolids should contain a certain amount of metals to meet a
minimum concentration. Changing the terminology to "do not exceed the metal concentrations" more clearly identifies the concentrations as a maximum limit which should not be exceeded.

The commission proposes to amend §312.42(b) and (c) to replace "reached" with "exceeded" in reference to cumulative metal loading rates and annual application rates. The change prevents land application to sites that have exceeded the applicable rates, while allowing land application up to the exact rate.

The commission proposes to amend §312.42(i), to improve readability and clarity relating to toxicity.

§312.43, Metal Limits

The commission proposes to amend Figure: 30 TAC §312.43(b)(1), Figure: 30 TAC §312.43(b)(2), Figure: 30 TAC §312.43(b)(3), and Figure: 30 TAC §312.43(b)(4), to include "Land Application" in the titles and to make non-substantial changes to the formatting of the figures to improve readability.

The commission proposes to delete §312.43(c), pertaining to the calculation of the Annual Application Rate (AAR) for domestic septage. The AAR calculation for domestic septage is proposed to be moved to §312.49(b) (Procedure to Determine the Annual
Whole Application Rate for Biosolids and Domestic Septage).

§312.44, Management Practices
Throughout §312.44, the commission proposes to replace "sewage sludge" with "biosolids and/or domestic septage" to provide clarification and to be consistent with longstanding TCEQ practice.

The commission proposes to amend §312.44(c), by clarifying that the buffer zones listed under paragraph (1)(A) and (B) and paragraph (2)(A) – (C), (E), and (F) are required to be established at permit or registration issuance and would be required to be maintained if a change were to occur in or surrounding the land application unit regardless of the buffer zone applicable at the time of permit or registration issuance. Additionally, the commission proposes to amend §312.44(c), by clarifying that the buffer zone listed under paragraph (2)(D), which is the requirement of a 750-foot buffer for an established school, institution, business, or occupied residential structure, will be established initially at permit or registration issuance. This buffer must also be re-evaluated only when a permittee or registrant applies for a renewal or major amendment and not during the term of the permit or registration. This clarification means that if, for example, a residential structure is constructed and is occupied after a permit is issued and lies within 750 feet of the boundaries of a land application unit, the buffer will be re-evaluated when the permit undergoes a renewal and not during the permit term.
The commission proposes to amend §312.44(h)(3), by replacing "rainstorms" with "any type of precipitation occurs" to clarify that biosolids or domestic septage may not be applied during other types of precipitation and not just rainstorms and to clarify that a person who land applies domestic septage is required to submit an Adverse and Alternative Weather Plan.

The commission proposes to amend §312.44(j)(3)(C), to clarify that best management practices for minimizing off-site tracking of material and sediment applies to domestic septage.

The commission proposes to amend §312.44(j)(4), to clarify that the executive director may require an odor control plan for a person who prepares or land applies domestic septage.

§312.47, Record Keeping
The commission proposes to amend the title of §312.47, by replacing "Record Keeping" with "Recordkeeping."

The commission proposes to amend §312.47(a)(3) and (4), to clarify that the metal concentrations are not exceeded. Adding the language "are not exceeded" more clearly identifies the metal concentrations as a maximum limit which should not be exceeded.
rather than a concentration that must be in the biosolids.

The commission proposes to amend §312.47(a)(3)(B)(ii), (4)(B)(ii), and (5)(B)(ix) to provide clarity and improve readability.

The commission proposes §312.47(a)(7), to include that a person who land applies Class B biosolids develop information regarding the dates of harvesting and the amount harvested (excluding grazing) and retain the information for five years. The amount harvested (i.e., bushels, tons, bales) should reflect the nutrient removal for which the agronomic rate stated in the permit is based.

The commission proposes §312.47(a)(8), to include that, for a person who prepares biosolids, the recordkeeping requirements must be readily available for review by commission staff or be submitted to the executive director upon the request. This additional rule language is consistent with recordkeeping requirements for staging and storage, and record retention for transporters.

The commission proposes to amend §312.47(b), to include that records must be readily available for review by commission staff or be submitted to the executive director upon the request for a person who applies domestic septage. This additional rule language is consistent with recordkeeping requirements for staging and storage, and record retention for transporters.
The commission proposes §312.47(b)(9) and (10), to include that a person who land applies domestic septage develop information regarding the dates of harvesting and the amount harvested (excluding grazing) and retain the information for five years. The amount harvested (i.e., bushels, tons, bales) should reflect the nutrient removal for which the agronomic rate stated in the registration is based.

§312.48, Reporting

The commission proposes to amend §312.48(1), to include the annual reporting period being from September 1st of the previous year to August 31st of the current year.

The commission proposes to amend §312.48(1)(B)(i), by replacing "does not meet" metal concentrations in §312.43(b)(3) with "exceeds" these concentrations. Changing the language to "exceeds" more clearly identifies the metal concentrations as a maximum limit.

The commission proposes to amend §312.48(1)(C)(ii) to update the title of the report from "Annual Sludge Summary Report Form" to the "Annual Biosolids Land Application Summary Report Form."

The commission proposes to amend §312.48(2)(A), to update the title of the report from the "Quarterly Sludge Summary Report Form" to the "Quarterly Biosolids Land
§312.49, Appendix A--Procedure To Determine the Annual Whole Sludge Application Rate for a Sewage Sludge

The commission proposes to amend the title of §312.49, by replacing "Appendix A--Procedure to Determine the Annual Whole Sludge Application Rate for a Sewage Sludge" with "Procedure to Determine the Annual Whole Application Rate for Biosolids and Domestic Septage" to more accurately reflect the purpose of the section.

The commission proposes to amend §312.49, by designating the first paragraph of this section as §312.49(a), which notes that the subsection applies to the annual whole application rate for biosolids.

The commission proposes to delete §312.49(1), (2), (3), and Figure: 30 TAC §312.49(1) (Equation (1)). Additionally, the commission proposes to delete Appendix A which is Figure: 30 TAC §312.49(3) and place the text of the figure into the rule as proposed §312.49(a)(1) - (3).

The commission proposes to rename and relocate Figure: 30 TAC §312.49(2) to Figure: 30 TAC §312.49(a)(3). This change is proposed because both Equation (1) and (2) were mathematically the same, but Equation (2) was written in a way to reach the desired result which is the annual whole application rate.
The commission proposes §312.49(b), which requires the annual whole application rate for domestic septage to be less than or equal to the rate calculated in Equation B.2. The commission proposes Figure: 30 TAC §312.49(b), also called Equation B.2., which is the mathematical equation for the annual whole application rate for domestic septage.

§312.50, Storage and Staging of Sludge at Beneficial Use Sites
The commission proposes to amend the title of §312.50, by replacing "Storage and Staging of Sludge at Beneficial Use Sites" with "Storage and Staging of Biosolids and Domestic Septage" to reflect the types of materials regulated by the section.

The commission proposes to add domestic septage throughout this section to clarify that the requirements for storage and staging of domestic septage are the same as for biosolids, which is consistent with longstanding TCEQ practice.

The commission proposes to amend §312.50(a)(3), to require biosolids and/or domestic septage be stored away from odor receptors. This change is consistent with existing staging requirements under this section and is intended to prevent off-site dust migration and nuisance odors.

The commission proposes to amend §312.50(a)(6), to replace the word "domestic
animals" with "domestic livestock" to clarify that the requirement is intended to control access by domestic livestock, such as cattle, horses, goats, or domesticated swine, rather than domestic animals, such as cats or dogs.

The commission proposes to amend §312.50(c), to add language to clarify that moving the biosolids and/or domestic septage to another staging area within a land application unit does not restart the timeframe allowed for staging.

The commission proposes §312.50(d), which would require recordkeeping for storage and staging of biosolids and/or domestic septage at a land application unit. The recordkeeping would include both the date, volume, and type of material deposited at and removed from a storage facility or staging area. In the event that material is removed from the storage facility or staging area and taken to a different location rather than applied onsite, recordkeeping would include the information about the location where the material was taken. Records would be required to be retained for five years. The addition of these recordkeeping requirements would enable the executive director to verify compliance with the maximum timeframe allowed for storage and staging.

§312.64, Management Practices
The commission proposes to amend §312.64(k) and (l), by replacing "public health" with "human health" to clarify that the requirements should be protective of all people.
The commission proposes to amend §312.64(l), by replacing "animals" with "domestic livestock" to clarify the types of animals that must not be allowed to graze on an active disposal unit. This ensures that operators are not liable for wildlife that may graze on the land.

§312.65, Operational Standards--Pathogens and Vector Attraction
The commission proposes to amend §312.65(a) to maintain clarity after the term biosolids is being proposed in the rule.

§312.67, Record Keeping
The commission proposes to amend the title of §312.67, by replacing "Record Keeping" with "Recordkeeping."

The commission proposes to amend §312.67(b), by adding language to clarify the information that records shall contain when domestic septage that is placed on an active disposal unit. The proposed language would allow the executive director to verify compliance with the vector attraction requirements in §312.83(b)(12).

§312.68, Reporting
The commission proposes to amend §312.68, by adding the reporting period.
§312.82, Pathogen Reduction

The commission proposes to amend §312.82(a)(2)(B)(i) - (vi), by changing "Class A" to "Class AB" to reflect the original intent of the Class AB pathogen requirements from the 2014 rulemaking (Rule Project Number 2014-010-312-OW).

The commission proposes to amend Figure: 30 TAC §312.82(a)(3)(A)(i) and Figure: 30 TAC §312.82(a)(3)(A)(iv), to replace the ">" with "=" for consistency with 40 Code of Federal Regulations (CFR) Part 503.

The commission proposes to amend §312.82(b)(3)(E), by changing "animals" to "domestic livestock" to clarify the types of animals that must not be allowed to graze on land for at least 30 days after application of biosolids. This ensures that operators are not liable for wildlife that may graze on the land.

§312.121, Purpose, Scope, and Standards

The commission proposes to amend the title of §312.121, to "Purpose and Applicability" to reflect that "Scope" is no longer included within the section.

The commission proposes to delete §312.121(b), (c), and (e). The adoption of 40 CFR Part 257 by reference is no longer needed because the requirements in 40 CFR are proposed to be directly incorporated within this subchapter. This proposed change will encapsulate all of the water treatment requirements within the rule rather than having
to refer to separate regulations. The subsequent paragraphs will be re-lettered.

§312.122, Registrations and Permits

The commission is proposing to amend §312.122(a), to replace "landfill" with the term "monofill" to differentiate between disposal in a monofill versus a landfill. This clarification is necessary because the requirements for disposal of water treatment residuals in a landfill are established in Chapter 330. Chapter 312 does, however, establish the requirements for the disposal of water treatment residuals in a monofill.

The commission proposes to amend §312.122(b), to replace "40 Code of Federal Regulations Part 257" with the requirements of "this subsection." As previously noted, the proposed changes to this subchapter would encapsulate all of the water treatment requirements within the rule rather than having to refer to separate regulations.

§312.123, Annual Report

The commission proposes to repeal §312.123. The requirements to submit an annual report are being re-proposed as new §312.128 with changes. Moving this section improves the flow of the rule.

§312.123, General Requirements

The commission proposes a new §312.123, which outlines the general requirements that pertain to land application of water treatment residuals, such as, the requirement
to comply with the rules in the subchapter and for the person who provides or land applies water treatment residuals to provide or obtain the information necessary to comply with the subchapter. The section is being proposed to be consistent with current commission policy and with the general requirements for biosolids in §312.42.

§312.124, Metal Limits
The commission proposes new §312.124, which establishes the maximum allowable metal concentration in water treatment residuals that can be land applied and requires the applicant to determine the soil cadmium concentration to demonstrate that the cumulative cadmium loading will not result in toxicity to the soil. The section is being proposed to be consistent with current commission policy.

§312.125, Management Practices
The commission proposes new §312.125. Subsection (a) establishes the requirements under which water treatment residuals can be land applied for the production of food crops and feed crops. These requirements are consistent with 40 CFR §257.3-5. Subsections (b) - (h) establish the restrictions and management practices that must be met for land application or disposal of water treatment residuals. These requirements are consistent with current commission policy and the management practices for the land application of biosolids in §312.44.

§312.126, Frequency of Monitoring
The commission proposes new §312.126. This section establishes the monitoring frequency and the conditions under which the monitoring frequency can be increased or decreased for land application of water treatment residuals. These requirements are consistent with current commission policy and with the monitoring frequency established for the land application of biosolids.

§312.127, Recordkeeping
The commission proposes new §312.127. This section establishes the recordkeeping requirements and record retention periods for any person that prepares, derives material from, or land applies water treatment residuals. These requirements will allow the executive director to determine compliance with the requirements in this subchapter.

§312.128, Annual Report
The commission proposes new §312.128, which establishes the requirement to submit an annual report to TCEQ, the due date and reporting period for the report, and the minimum information that must be included in the report. This subsection also notes that the information submitted on the annual report will be used to assess an annual fee.

§312.129, Procedure to Determine the Annual Whole Application Rate for Water Treatment Residuals
The commission proposes new §312.129, which establishes the equations and procedures to determine the Annual Whole Application Rate so that it does not cause the annual loading rate for cadmium to be exceeded. This procedure is consistent with the requirements in 40 CFR §257.3-5.

§312.130, Storage of Water Treatment Residuals
The commission proposes new §312.130, which establishes the requirements for the storage of water treatment residuals prior to disposal or land application.

§312.141, Transporters--Applicability and Responsibility
The commission proposes to amend §312.141(d), to change "meets" to "does not exceed" the metal limits in Table 3 of §312.43(b)(3). This is to provide clarification that the rules under this section are not applicable to persons transporting biosolids that do not exceed the metal limits in Table 3.

§312.142, Transporter Registration
The commission proposes to amend §312.142(b)(1), by removing the requirement that a complete signed application form needs to be notarized since the notarized signature is not necessary.

The commission proposes to amend §312.142(c), to clarify that a current copy of a registration authorized by the executive director shall be maintained at their...
designated place of business.

The commission proposes to amend §312.142(e), to include that a new transporter registration application would be required to be submitted within 15 days when there is a change in ownership or existing operation methods. The commission also proposes to amend §312.142(e) by removing the statement that an old registration number will be voided and the old registration cancelled and the requirement to a new registration application if the registrant fails to submit an annual report. This statement is unnecessary for the purpose of this rule.

The commission proposes to amend §312.142(f), to include that transporters notify the executive director by letter, within 15 days after changes to license plate numbers of registered vehicles, addition of a new vehicle to the fleet, or removal of an existing vehicle from the fleet; if a transporter plans to haul waste to a location not included on the existing registration; or if a transporter plans to remove a location already included on the existing registration. These changes will assist the executive director with tracking transporter vehicles and the locations where wastes are hauled to.

§312.143, Transporters--Delivery Requirement and Full Pump-out Requirement

The commission proposes to amend §312.143, by implied (a) to §312.143(a) and by clarifying that the rule pertains to in-state disposal and by removing "(Texas)" since it is redundant.
The commission proposes §312.143(b), which would require transporters that deposit waste out-of-state to deposit wastes at a facility that has obtained written authorization to receive waste as required by the state where the recipient facility is located.

The commission proposes §312.143(c), which would require grit traps and grease traps to be fully evacuated unless the trap volume is greater than the tank capacity, in which case the transporter must arrange for the remaining wastes in the trap to be fully evacuated within 24 hours.

§312.144, Transporters--Vehicle and Equipment

The commission proposes to amend §312.144(e), by removing the requirement that if a vehicle, tank, or container that is used to transport domestic septage to a beneficial use site, the transporter would be required to keep records showing how pathogen and vector attraction reduction requirements were met. The purpose of the removal of this requirement is that there may be situations where septage transporters haul untreated domestic septage and deposit the waste at a permitted domestic septage processing facility. The domestic septage processing facility would only be required to keep records showing that the septage meets the requirements of pathogen reduction requirements listed in §312.82(c) and vector attraction reduction requirements in §312.83. In the event that the domestic septage meets the pathogen and vector
attraction reduction requirements, the transporter must keep such records.

§312.145, Transporters--Recordkeeping

The commission proposes to amend §312.145(a)(2) and (7), to allow electronic signatures on trip tickets. This would allow companies that use electronic driver and dispatch logs to collect electronic signatures on trip tickets.

The commission proposes to amend §312.145(b)(4), to improve readability and remove redundancy.

§312.147, Temporary Storage

The commission proposes §312.147(c), which establishes recordkeeping requirements for temporary storage. The recordkeeping would include the date, volume, and type of waste deposited into and removed from a temporary storage facility, and information about the facility where waste removed was deposited. Records would be required to be retained for five years. The addition of these recordkeeping requirements would enable the executive director to verify compliance with the maximum timeframe allowed for temporary storage.

§312.149, Interstate Transportation

The commission proposes to amend the title of §312.149, to "Out-of-State Transportation."
The commission proposes to delete §312.149(b), since not all states regulate sludge transportation. The TCEQ does not have the ability to check the validity of the authorization nor means of enforcing out-of-state regulations. With the removal of subsection (b), subsection (a) will become a standalone paragraph within the section.

Fiscal Note: Costs to State and Local Government

Jené Bearse, Analyst in the Budget and Planning Division, determined that for the first five-year period the proposed rulemaking is in effect, no fiscal implications are anticipated for the agency or other units of state or local government as a result of the administration or enforcement of the proposed rulemaking.

The rulemaking is proposed in order to clarify the intent of existing rule requirements, remove inconsistencies, and improve readability.

Public Benefits and Costs

Ms. Bearse also determined that for each year of the first five years the proposed rulemaking is in effect, the anticipated public benefit will be compliance with state law and clear rules for the administration and regulation of sludge use, disposal, and transportation. The rulemaking would benefit the public because it is likely that it will result in increased enforcement and compliance with environmental regulations. The proposed rulemaking is not expected to result in significant fiscal implications for
Local Employment Impact Statement

The commission reviewed this proposed rulemaking and determined that a Local Employment Impact Statement is not required because the proposed rulemaking does not adversely affect a local economy in a material way for the first five years that the proposed rulemaking is in effect.

Rural Communities Impact Assessment

The commission reviewed this proposed rulemaking and determined that the proposed rulemaking does not adversely affect rural communities in a material way for the first five years that the proposed rulemaking is in effect. The rulemaking would apply statewide and have the same effect in rural communities as in urban communities.

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses due to the implementation or administration of the proposed rulemaking for the first five-year period the proposed rulemaking is in effect.

Small Business Regulatory Flexibility Analysis

The commission reviewed this proposed rulemaking and determined that a Small Business Regulatory Flexibility Analysis is not required because the proposed
rulemaking does not adversely affect a small or micro-business in a material way for the first five years the proposed rulemaking is in effect.

**Government Growth Impact Statement**

The commission prepared a Government Growth Impact Statement Assessment for this proposed rulemaking. The proposed rulemaking does not create or eliminate a government program and will not require an increase or decrease in future legislative appropriations to the agency. The proposed rulemaking does not require the creation of new employee positions, eliminate current employee positions, nor require an increase or decrease in fees paid to the agency. The proposed rulemaking does not create, expand, repeal, or limit an existing regulation, nor does not increase or decrease the number of individuals subject to its applicability. During the first five years, the proposed rulemaking should not impact positively or negatively the state's economy.

**Draft Regulatory Impact Analysis Determination**

The commission reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225, because it does not meet the definition of a "Major environmental rule" as defined in that statute. Texas Government Code, §2001.0225, applies to "Major environmental rules" the result of which are to exceed standards set by federal law, express requirements of state law,
requirements of a delegation agreements between state and the federal governments to implement a state and federal program, or rules adopted solely under the general powers of the agency instead of under a specific state law.

A "Major environmental rule" is a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector or the state. The proposed rulemaking does not adversely affect, in a material way, the economy, a section of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The specific intent of the proposed rulemaking is to provide clarification for the intent of rule requirements. The rulemaking will clarify the intent of existing rule requirements, remove inconsistencies, and improve readability.

The proposed rulemaking modifies the state rules related to use and disposal of sewage sludge biosolids, domestic septage, and water treatment residuals. This will have an impact on the environment, human health, and/or public health and safety; however, the proposed rulemaking will not adversely affect the economy, a sector of the economy, productivity, competition, or jobs within the state or a sector of the state. Therefore, the commission concludes that the proposed rulemaking does not meet the definition of a "Major environmental rule."
Furthermore, even if the proposed rulemaking did meet the definition of a "Major environmental rule," it is not subject to Texas Government Code, §2001.0225, because it does not meet any of the four applicability requirements specified in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225(a), applies only to a state agency’s adoption of a major environmental rule that: 1) exceeds a standard set by federal law, unless state law specifically requires the rule; 2) exceeds an express requirement of state law, unless federal law specifically requires the rule; 3) exceeds a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) is adopted solely under the general powers of the agency instead of under a specific state law.

In this case, the proposed rulemaking does not meet any of the four requirements in Texas Government Code, §2001.0225(a). First, this rulemaking does not exceed standards set by federal law. Second, the proposed rulemaking does not exceed an express requirement of state law, but rather changes the requirements under state law to ensure regulatory consistency, regulate more comprehensively the use and disposal of sewage sludge, biosolids, domestic septage, and water treatment residuals, and clarify the executive director's authority related to regulating to the use and disposal of sewage sludge, biosolids, domestic septage, and water treatment residuals. Third, the proposed rulemaking 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. Finally, the commission proposes the rulemaking under Texas Water Code, §§5.013, 5.102, 5.103, 5.120, 26.011, 26.027, and 26.041; and THSC, §361.121; therefore, the commission does not adopt the rule solely under the commission's general powers. The commission invites public comment on the Draft Regulatory Impact Analysis Determination.

Written comments on the Draft Regulatory Impact Analysis Determination may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

**Takings Impact Assessment**

The commission evaluated the proposed rulemaking and performed an analysis of whether it constitutes a taking under Texas Government Code, §2007.043. The following is a summary of that analysis. The specific purpose of the proposed rulemaking is to provide clarification for the intent of rule requirements. The rulemaking will clarify the intent of existing rule requirements, remove inconsistencies, and improve readability. The proposed rulemaking will substantially advance this stated purpose by adopting language intended to regulate more comprehensively the use and disposal of sewage sludge, biosolids, domestic septage, and water treatment residuals.
Promulgation and enforcement of these proposed rules would be neither a statutory nor a constitutional taking of private real property. Specifically, the proposed regulation does not affect a landowner's rights in private real property because this rulemaking does not burden (constitutionally), restrict or limit the owner's right to property, nor reduce its value by 25% or more beyond that which would otherwise exist in the absence of the regulations. Therefore, the proposed rules do not constitute a taking under Texas Government Code, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the rulemaking and found that the adoption is a rulemaking identified in the Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2), relating to rules subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §§33.201 et seq., which therefore, requires that the goals and policies of the CMP be considered during the rulemaking process.

CMP goals applicable to the adopted rules include protection, preservation, restoration, and enhancement of the diversity, quality, quantity, functions, and values of coastal natural resource areas. Ensuring sound management of all coastal resources that balances the benefits of economic development with multiple human uses of the coastal zone, while enhancing planned public access to and enjoyment of the coastal zone in a manner that is compatible with private property rights and other uses of the
coastal zone.

CMP policies applicable to the adopted rules include 31 TAC §501.13(a)(1) and (2) that mandate commission rules requiring applicants to provide necessary information so that the commission makes an informed decision on a proposed action listed in 30 TAC §505.11 (Actions and Rules Subject to the CMP), and identify the monitoring needed to ensure that activities authorized by actions listed 30 TAC §505.11 comply with all applicable requirements.

The proposed rulemaking clarifies the intent of existing rule requirements, remove inconsistencies, and improve readability. By adopting these rules, there will be greater protection in the areas of concern to the CMP.

The commission conducted a consistency determination for the adopted rules in accordance with Coastal Coordination Act implementation rules, 31 TAC §505.22, and found the rulemaking is consistent with the applicable CMP goals and policies. Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the adopted rules are consistent with those CMP goals and policies and because these rules do not create or have a direct or significant adverse effect on any coastal natural resource areas.
Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on November 19, 2019, at 10:00 a.m. in Building E, Room 201S, at the commission’s central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-RELAY-TX (TDD). Requests should be made as far in advance as possible.

Submittal of Comments

Written comments may be submitted to Paige Bond, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. Electronic comments may be submitted at: https://www6.tceq.texas.gov/rules/ecomments/. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2017-035-312-OW. The comment period closes on November 26, 2019. Copies of the proposed rulemaking can be obtained from the commission’s
website at https://www.tceq.texas.gov/rules/propose_adopt.html. For further information, please contact Brian Sierant, Land Application Team, Water Quality Division, (512) 239-1375.
Statutory Authority

These amendments are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants into or adjacent to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives
the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.1. Purpose.

This chapter establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge or biosolids generated during the treatment of domestic sewage in a treatment works, and for the final use or disposal of domestic septage. Standards are included in this chapter for sewage sludge, biosolids, water treatment residuals, and domestic septage land applied [to the land] for beneficial use [,] or placed on a surface disposal site. Standards are also included in this chapter for sewage sludge or biosolids fired in an [a sewage sludge] incinerator. [The standards applicable to the disposal of water treatment sludge are included.] Also included in this chapter are pathogen and vector attraction reduction requirements for sewage sludge, biosolids, and domestic septage land applied [to the land] or placed on a surface disposal site. In addition, the standards in this chapter include the frequency of monitoring and record keeping requirements when sewage sludge, biosolids, [or]
domestic septage, or water treatment residuals are land applied to the land or placed on a surface disposal site. Also included are the frequency of monitoring and recordkeeping requirements when sewage sludge or biosolids are fired in an incinerator. Also included are requirements relating to the transportation of sewage sludge, biosolids, water treatment residuals, domestic septage, chemical toilet waste, grit trap waste, and grease trap waste.

§312.2. Applicability.

(a) This chapter applies to any person who prepares sewage sludge, biosolids, or domestic septage.

(b) This chapter applies to any person who fires sewage sludge or biosolids in an incinerator.

(c) This chapter applies to any person who land applies sewage sludge, biosolids, water treatment residuals, or domestic septage to the land and to the owner/operator of a surface disposal site.

(d) This chapter applies to sewage sludge, biosolids, water treatment residuals, or domestic septage that is land applied to the land or placed on a surface disposal site.
(e) This chapter applies to sewage sludge or biosolids fired in an [a sewage sludge] incinerator.

(f) This chapter applies to land where sewage sludge, biosolids, water treatment residuals, or domestic septage is applied to a surface disposal site and to an [a sewage sludge] incinerator.

(g) This chapter applies to any person who transports sewage sludge, biosolids, water treatment residuals [sludge], domestic septage, chemical toilet waste, grit trap waste, or grease trap waste. This chapter does not apply to oily water mixtures in waste management units such as tanks, fractionation tanks, and sumps that meet the design requirements of the American Petroleum Institute for oil/water separators or have been designed for oil-water separation. Recycling of oil-water mixtures from the waste management units designed for oil-water separation must comply with the requirements found in Chapter 324 of this title (relating to Used Oil Standards). Waste in waste management units that do not meet the design criteria in this subsection and that are plumbed directly to a sanitary sewer are covered by this chapter.

(h) This chapter applies to the exit gas from an [a sewage sludge] incinerator stack.
(i) This chapter applies to any person who applies water treatment residuals [sludge] for disposal in a landfill, surface impoundment, or waste pile, as defined in 40 Code of Federal Regulations (CFR) §257.2.

(j) This chapter applies to any person who applies water treatment residuals [sludge] for disposal in a land application unit, as defined in §312.121 of this title (relating to Purpose, Scope, and Standards).

(k) This chapter applies to water treatment residuals [sludge] which are [is] disposed of in a landfill, surface impoundment, or waste pile, as defined in 40 CFR §257.2.

(l) This chapter applies to water treatment residuals [sludge] which are [is] disposed of in a land application unit, as defined in §312.121 of this title.

§312.3. Exclusions.

(a) This chapter does not authorize [establish requirements for] processes used to treat domestic sewage or for processes used to treat sewage sludge or domestic septage prior to final use or disposal, except as provided in §312.82 and §312.83 of this title (relating to Pathogen Reduction and Vector Attraction Reduction).
(b) This chapter does not require the selection of a method of use or disposal for sewage sludge, biosolids, or domestic septage. The determination of the way [manner in which] sewage sludge, biosolids, or domestic septage is used or disposed is a local determination.

(c) This chapter does not authorize [establish requirements for] sewage sludge or biosolids co-fired in an incinerator with other wastes or for the incinerator in which sewage sludge or biosolids and other wastes are co-fired. Other wastes do not include auxiliary fuel, as defined in 40 Code of Federal Regulations (CFR) §503.41(b), fired in an [a sewage sludge] incinerator.

(d) This chapter does not authorize [establish requirements for] the use and disposal of sewage sludge generated at an industrial facility, unless the sewage sludge is of a domestic origin and the sewage sludge is generated from the treatment of domestic sewage. If a process at an industrial facility that primarily treats industrial wastewater combines domestic sewage with any type of industrial solid waste, any resulting sewage sludge, process waste, or wastewater generated at the industrial facility will be considered to be industrial solid waste and must be processed, stored, or disposed of in accordance with the applicable requirements of Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste). If a facility that primarily treats domestic wastewater combines domestic sewage with any type of industrial solid waste, any resulting sewage sludge, process waste, or wastewater
generated at the facility will be considered to be domestic sewage sludge and must be
processed, stored, or disposed of in accordance with the applicable requirements of
this chapter.

(e) This chapter does not authorize [establish requirements for] the use or
disposal of sewage sludge or other wastes determined to be a hazardous waste, as
defined in §335.1 of this title (relating to Definitions) or as determined in accordance
with 40 CFR, Part 261.

(f) This chapter does not authorize [establish requirements for] the use or
disposal of sewage sludge, biosolids, or water treatment residuals with a concentration
of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per
kilogram of total solids (dry weight basis).

(g) This chapter does not authorize [establish requirements for] the use or
disposal of ash generated during the firing of sewage sludge or biosolids in an [a
sewage sludge] incinerator.

(h) This chapter does not authorize [establish requirements for] the storage of
sewage sludge, biosolids, domestic septage, grease trap waste, chemical toilet waste, or
grit trap waste, except as provided for in §312.50 of this title (relating to Storage and
Staging of Biosolids and Domestic Septage [Sludge at Beneficial Use Sites]) and §312.147 of this title (relating to Temporary Storage).

(i) This chapter does not authorize [establish requirements for] the processing, use, or disposal of grease trap waste, grit trap waste, chemical toilet waste, grit (e.g., sand, gravel, cinders, or other materials with a high specific gravity), screenings (e.g., relatively large materials such as rags), or other wastes generated during preliminary treatment of domestic sewage in a treatment works.

(j) [i] This chapter does not authorize [establish requirements for] the use or disposal of industrial septage or a mixture of domestic septage and industrial septage.

(k) [j] This chapter does not apply to [sludge, septage, or any] wastes resulting from activities associated with the exploration, development, and production of oil or gas or geothermal resources, as defined in §335.1 of this title, except for domestic septage or sewage sludge which may be collected at facilities where such activities occur, that is not mixed in any manner with other oil, gas, or geothermal wastes.

(l) [k] Experimental use shall be excluded from the requirements of this chapter, provided the following conditions are met at the time the sewage sludge or biosolids are [is] placed on a land application unit [beneficial use site] or reclamation site:
(1) the metal concentrations established in §312.43(b)(3) (Table 3) of this title (relating to Metal Limits) shall be met;

(2) one of the vector attraction reduction alternatives in §312.83(b)(1)-(11) of this title shall be met;

(3) the pathogen reduction compliance requirements established in §312.82(a) or (b) of this title [(relating to Pathogen Reduction)] shall be met;

(4) the applicant shall receive written approval from the executive director prior to commencement of operations for the experimental project; and

(5) the applicant shall submit to the executive director the aims and goals of the project and any other additional information the executive director believes necessary to establish the experimental nature of the project.

(m) [(l)] This chapter does not authorize [establish requirements for] the land application of processed or unprocessed chemical toilet waste, grease trap waste, [and] grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed above combined with biosolids, sewage sludge, domestic septage, or water treatment residuals.
(n) [(m)] This chapter does not allow for the registration of sewage sludge, biosolids, or domestic septage processing operations or facilities. Such facilities or operations are required to obtain a permit.

(o) This chapter does not authorize sewage sludge, biosolids, or domestic septage processing operations unless the processing occurs at a treatment works. Processing operations that are not located at a treatment works must be authorized under Chapter 330 of this title (relating to Municipal Solid Waste) or Chapter 332 of this title (relating to Composting). The final use and disposal of materials processed at an authorized processing facility may be authorized in accordance with this chapter. Processing permits that were issued on or prior to the effective date of the amendments to this chapter are to continue under the rule requirements as they existed immediately prior to the effective date of the amendments.

§312.4. Required Authorizations or Notifications.

(a) Permits. Except where in conflict with other chapters in this title, a permit shall be required before any storage, processing, incineration, [or] disposal of sewage sludge, biosolids, or water treatment residuals in a monofill, except for storage allowed under this section, §312.50 of this title (relating to the Storage and Staging of Biosolids and Domestic Septage [Sludge at Beneficial Use Sites]), §312.61(c) of this title (relating
to Applicability), §312.147 of this title (relating to Temporary Storage), and §312.148 of this title (relating to Secondary Transportation of Waste). Any permit authorizing disposal of sewage sludge, biosolids, or water treatment residuals in a monofill shall be in accordance with any applicable standards of Subchapter C of this chapter (relating to Surface Disposal) or §312.101 of this title (relating to Incineration). No permit will be required under this chapter if issued in accordance with other requirements of the commission, as specified in §312.5 of this title (relating to Relationship to Other Requirements).

[(1) Effective September 1, 2003, a permit is required for the beneficial land application of Class B sewage sludge. All registrations for the land application of Class B sewage sludge will expire on or before August 31, 2003. A person holding a registration to land apply sewage sludge who submitted an administratively complete permit application on or before September 1, 2002, may continue operations under the existing registration until final commission action on the permit application. For registrations that also authorize the use of Class A, sewage sludge, domestic septage, or water treatment plant sludge, only the provisions for the use of Class B sewage sludge will expire on August 31, 2003; the other provisions will expire on the expiration date of the registration or when a permit authorizing the use of Class A sewage sludge, domestic septage, or water treatment plant sludge is issued for the site.]
(1) [2] The effective date of a permit is the date that the executive director signs the permit.

(2) [3] Site permit information on file with the commission must be confirmed or updated, in writing, whenever the mailing address and/or telephone number of the owner or operator is changed, or whenever requested by the commission.

(3) [4] If a permit is required under this chapter, all activities at the site under this chapter, except transportation, shall be incorporated in the permit.

(4) [5] The commission may not issue a Class B biosolids [sewage sludge] permit for a land application unit that is located both in a county that borders the Gulf of Mexico and within 500 feet of any water well or surface water.

(b) Notification of certain Class A or Class AB biosolids [sewage sludge] land application activities.

(1) If biosolids do not exceed [sewage sludge meets] the metal concentration limits in Table 3 of §312.43(b)(3) of this title (relating to Metal Limits), meets the Class A or Class AB pathogen reduction requirements in §312.82(a) of this title (relating to Pathogen Reduction), and meets one of the requirements in
§312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction), it will not be subject to the requirements of §312.10 of this title (relating to Permit and Registration Applications Processing), §312.11 of this title (relating to Permits), §312.12 of this title (relating to Registrations), and §312.13 of this title (relating to Actions and Notice), except as provided in this subsection.

(2) Any generator in Texas or any person who first conveys sewage sludge or biosolids from out of state into the State of Texas and who proposes to store, land apply, or market and distribute biosolids [sewage sludge] meeting the standards of this subsection shall submit notification to the executive director, at least 30 days prior to engaging in such activities for the first time on a form approved by the executive director. A completed notification form shall be submitted to the Water Quality Division by certified mail, return receipt requested. The notification must contain information detailing:

(A) biosolids [sewage sludge] classification, all points of generation, and wastewater treatment facility identification;

(B) name, address, telephone number, and the longitude and latitude of the site for all persons who are being proposed to receive the biosolids [sewage sludge] directly from the generator;
(C) a description in a marketing and distribution plan that describes any of the following activities:

(i) to sell or give away biosolids [sewage sludge] directly to the public, including a general description of the types of end uses proposed by persons who will be receiving the biosolids [sewage sludge];

(ii) methods of distribution, marketing, handling, and transportation of the biosolids [sewage sludge];

(iii) a reasonable estimate of the expected quantity of biosolids [sewage sludge] to be generated or handled by the person making the notification; and

(iv) a description of any proposed storage and the methods that will be employed to prevent surface water runoff of the biosolids [sewage sludge] or contamination of groundwater; and

(D) prior to land application, a map showing the buffer zone areas required under §312.44(c)(2)(D) and (E) of this title (relating to Management Practices) for all persons who are being proposed to receive the biosolids [sewage sludge] directly
from the generator that meets one of the Class AB pathogen reduction requirements in §312.82(a)(2) of this title.

(3) Thirty days after the notification has occurred, the activities regulated by this subsection may commence unless the executive director determines that the activities do not meet the requirements of this subsection or an applicant's permit. After receiving a notification, the executive director may review a generator's activities or the activities of the person conveying the biosolids [sewage sludge] into Texas to determine whether any or all [of] the requirements of this chapter are necessary. In making this determination, the executive director will consider specific circumstances related to handling procedures, site conditions, or the application rate of the biosolids [sewage sludge]. The executive director may review a proposal for storage of biosolids [sewage sludge], considering the amount of time and the amount of material described on the notification. Also, in accordance with §312.41 of this title (relating to Applicability), any reasonably anticipated adverse effect that may occur due to a metal pollutant in the biosolids [sewage sludge] may also be considered.

(4) Annually, on September 30th [1], each person subject to notification of certain Class A and Class AB biosolids [sewage sludge] activities required by this subsection shall provide a report to the executive director [commission], which shows in detail all activities described in paragraph (2) of this subsection that occurred during the year [in the] (reporting period September 1st of previous year to August
31st of current year). The report must include an update of new information since the prior report or notification was submitted and all newly proposed activities. The report must also include a description of the annual amounts of biosolids [sewage sludge] provided to each initial receiver from the in-state generator and for persons who convey out-of-state biosolids [sewage sludge] into Texas, the amounts provided from this person directly to any initial receivers and an updated list of persons receiving the biosolids [sewage sludge]. This report can be combined with the annual report(s) required under §312.48 of this title (relating to Reporting), §312.68 of this title (relating to Reporting), or §312.128 [§312.123] of this title (relating to Annual Report).

(c) Registration of land application units [sites].

(1) Registrations [Effective September 1, 2003, registrations] may only be obtained for the land application of Class A or Class AB biosolids [sewage sludge] that do [does] not meet the requirements of subsection (b) of this section, water treatment residuals [plant sludge], and domestic septage.

(2) The effective date of the registration is the date that the executive director signs the registration [in accordance with §312.12(d) of this title]. Site registration information on file with the commission must be confirmed or updated, in writing, whenever the mailing address and/or telephone number of the owner or operator is changed or requested by the executive director.
(d) Authorization. No person may cause, suffer, allow, or permit any activity of land application [for beneficial use] of biosolids, water treatment residuals, or domestic septage [sewage sludge] unless such activity has received the prior written authorization of the commission.

§312.5. Relationship to Other Requirements.

Disposal of sewage sludge, biosolids, or water treatment residuals [sludge] in a municipal solid waste landfill unit, as defined in 40 Code of Federal Regulations (CFR) §258.2, that complies with the requirements in 40 CFR Part 257 [§257] and Part 258 [§258] constitutes compliance with federal Clean Water Act (CWA), §405(d) [of the Clean Water Act (CWA)]. Any person who prepares sewage sludge, biosolids, or water treatment residuals [sludge] that are [is] disposed of in a municipal solid waste landfill unit shall ensure that the sewage sludge, biosolids, or water treatment residuals [sludge] meets the requirements in 40 CFR Part 258 [§258] concerning the quality of materials disposed of in a municipal solid waste landfill unit. Storage, processing, or disposal of sewage sludge or biosolids authorized by a permit issued pursuant to Texas Water Code, §26.027, [of the Texas Water Code] will not require a separate permit authorization pursuant to this chapter, for the same activities. Sewage sludge, biosolids, or water treatment residuals [sludge] that are [is] disposed of in a municipal
solid waste landfill unit, as defined in 40 CFR §258.2, are [is] not subject to the fee schedules of this chapter.

§312.6. Additional or More Stringent Requirements.

On a case-by-case basis, the commission or executive director may impose requirements for the use or disposal of sewage sludge, biosolids, domestic septage or water treatment residuals in addition to or more stringent than the requirements in this chapter when necessary to protect human [public] health or [and] the environment from any adverse effect from [of a pollutant in the] sewage sludge, biosolids, domestic septage or water treatment residuals.

§312.7. Sampling and Analysis.

(a) Representative samples of sewage sludge, biosolids, [or] domestic septage, or water treatment residuals that are land [is] applied [to the land,] or placed on a surface disposal site shall be collected and analyzed.

(b) Representative samples of sewage sludge or biosolids fired in an [a sewage sludge] incinerator shall be collected and analyzed.
(c) The following methods, other methods as approved by the executive director, or the latest revision shall be used to analyze samples of sewage sludge, biosolids, water treatment residuals, or domestic septage.


§312.8. General Definitions.

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

(1) 25-year, 24-hour rainfall event--The maximum rainfall event with a probable recurrence interval of once in 25 years, with a duration of 24 hours as defined by the National Weather Service in Technical Paper Number 40, Rainfall
Frequency Atlas of the United States, May 1961, and subsequent amendments, or equivalent regional or state rainfall information developed from it.

(2) Active disposal [sludge] unit--A disposal [sludge] unit that has not closed and/or is still receiving sewage sludge, biosolids, domestic septage, or water treatment residuals.

(3) Aerobic digestion--The biochemical decomposition of organic matter in sewage sludge into carbon dioxide, water, and other by-products by microorganisms in the presence of free oxygen.

(4) Agricultural land--Land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

(5) Agricultural management unit--A portion of a land application area contained within an identifiable boundary, such as a river, fence, or road, where the area has a known crop or land use history.

(6) Agronomic rate--The whole [sludge] application rate (dry weight basis) designed:
(A) to provide the amount of nitrogen needed by the crop or
vegetation grown on the land; and

(B) to minimize the amount of nitrogen [in the sewage sludge] that
passes below the root zone of the crop or vegetation [grown on the land] to the
groundwater.

(7) Anaerobic digestion--The biochemical decomposition of organic
matter in sewage sludge into methane gas, carbon dioxide, and other by-products by
microorganisms in the absence of free oxygen.

(8) Annual metal loading rate--The maximum amount of a metal
[pollutant] (dry weight basis) that can be applied to a land application unit [area of
land] during a 365-day period.

(9) Annual whole [sludge] application rate--The maximum amount of
biosolids, domestic septage, or water treatment residuals [sewage sludge] that can be
applied to a land application unit [area of land] during a 365-day period.

(10) Applied uniformly--Land application conducted in [Sewage sludge
placed on the land for beneficial use] such a way that the agronomic rate is not
exceeded anywhere in the land application unit [application area].
[(11)] [Apply sewage sludge or sewage sludge applied to the land--Land application or the spraying/spreading of sewage sludge onto the land surface; the injection of sewage sludge below the land surface; or the incorporation of sewage sludge into the soil.]

(11) [(12)] Aquifer--A geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding groundwater to wells or springs.

(12) [(13)] Base flood--A flood that has a 1% chance of occurring in any given year.

(13) [(14)] Beneficial use--The land application of biosolids or domestic septage [Placement of sewage sludge onto land] in a manner that complies with the requirements of Subchapter B of this chapter (relating to Land Application [for Beneficial Use] and Storage of Biosolids and Domestic Septage [at Beneficial Use Sites]), or the land application of water treatment residuals in a manner that complies with the requirements of Subchapter F (relating to Land Application, Storage, and Disposal of Water Treatment Residuals) and does not exceed the agronomic [need or] rate for a food, fiber, feed, or turf [cover] crop, or any metal or toxic constituent limitations that the food, fiber, feed, or turf [cover] crop may have. Land application of biosolids, water
treatment residuals, or domestic septage [Placement of sewage sludge on the land] at a rate below the optimal agronomic rate will be considered a beneficial use.

(14) Beneficial use site--An area of land that contains one or more land application units.

(15) Biosolids--Sewage sludge that has been treated or processed to meet Class A, Class AB, or Class B pathogen standards under this chapter for beneficial use.

(16) [(15)] Bulk biosolids [sewage sludge]--Biosolids [Sewage sludge] that are [is] not sold or given away in a bag or other container for land application [to the land].

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

(18) [(17)] Class A biosolids [sewage sludge]--Biosolids [Sewage sludge] meeting the metal limits in §312.43(b)(1) and (3) of this title (relating to Metal Limits) and the pathogen reduction requirements in §312.82(a)(1)(B) of this title (relating to Pathogen Reduction).
(19) [(18)] Class AB biosolids [sewage sludge]--Biosolids [Sewage sludge] meeting the metal limits in §312.43(b)(1) and (3) of this title (relating to Metal Limits) and the pathogen reduction requirements in §312.82(a)(1)(A) of this title (relating to Pathogen Reduction).

(20) [(19)] Class B biosolids--Biosolids [sewage sludge--Sewage sludge] meeting the metal limits in §312.43(b)(1) of this title (relating to Metal Limits) and one of the pathogen reduction requirements in §312.82(b) of this title (relating to Pathogen Reduction).

(21) [(20)] Contaminate an aquifer--To introduce a substance that causes the maximum contaminant level for nitrate in 40 Code of Federal Regulations (CFR) §141.11, as amended, to be exceeded in groundwater or that causes the existing concentration of nitrate in groundwater to increase when the existing concentration of nitrate in the groundwater already exceeds the maximum contaminate level for nitrate in 40 CFR §141.11, as amended.

(22) [(21)] Cover--Soil or other material used to cover sewage sludge, biosolids, domestic septage, or water treatment residuals placed on an active disposal [sludge] unit.
(23) [(22)] Cover crop--Grasses or small grain crop, such as oats, wheat, or barley, not grown for harvest.

(24) [(23)] Cumulative metal loading rate--The maximum amount of an inorganic pollutant (dry weight basis) that may be applied to a land application unit [area of land].

(25) Debris --Solid material such as rubber, plastic, glass, or other trash that may pass through a wastewater treatment process or sewage sludge or biosolids process. Also, material that may be collected with domestic septage. This solid material is visibly distinguishable from sewage sludge, biosolids, and domestic septage. This material does not include grit or screenings removed during the preliminary treatment of domestic sewage at a treatment works, nor does it include grit trap waste.

(26) [(24)] Density of microorganisms--The number of microorganisms per unit mass of total solids (dry weight basis) in the sewage sludge or biosolids.

(27) [(25)] Displacement--The relative movement of any two sides of a fault measured in any direction.
(28) [(26)] Disposal--The placement of sewage sludge, biosolids, domestic septage, or water treatment residuals on the land for any purpose other than beneficial use. Disposal does not include placement onto the land where the activity has been approved by the executive director or commission as storage or temporary storage and it occurs only for the period of time expressly approved.

(29) Disposal unit--Land that only sewage sludge or biosolids is placed for disposal. A sewage sludge or biosolids unit must be used for sewage sludge and biosolids. This does not include land that sewage sludge and biosolids is either stored or treated.

(30) Disposal unit boundary--The outermost perimeter of a surface disposal site.

(31) [(27)] Domestic septage--Either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap.
(32) [(28)] Domestic sewage--Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

(33) [(29)] Dry weight basis--Calculated based on [the basis of] having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100% solids content).

(34) [(30)] Experimental use--Non-routine beneficial use land application or reclamation projects where sewage sludge or biosolids are [is] added to the soil for research purposes, in pilot projects, feasibility studies, or similar projects.

(35) [(31)] Facility--Includes all contiguous land, structures, other appurtenances, and improvements on the land used for [the] surface disposal, land application [for beneficial use], or incineration [of sewage sludge].

(36) [(32)] Fault--A fracture or zone of fractures in any materials along which strata, rocks, or soils on one side are displaced with respect to strata, rocks, or soil on the other side.

(37) [(33)] Feed crops--Crops produced primarily for consumption by domestic livestock, such as swine, goats, cattle, horses, or poultry.
(38) [(34)] Fiber crops--Crops such as flax and cotton.

(39) [(35)] Final cover--The last layer of soil or other material placed on a sludge or biosolids unit at closure.

(40) [(36)] Floodway--A channel of a river or watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the surface elevation more than one foot.

(41) [(37)] Food crops--Crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

(42) [(38)] Forest--Land densely vegetated with trees and/or underbrush.

(43) Grease trap waste--Material collected in and from a grease interceptor in the sanitary sewer service line of a commercial, institutional, or industrial food service or processing establishment, including the solids resulting from dewatering processes.

(44) [(39)] Grit trap--A unit/chamber that allows for the sedimentation of solids from an influent liquid stream by reducing the flow velocity of the influent
liquid stream. In a grit trap, the inlet and the outlet are both located at the same vertical level, at, or very near, the top of the unit/chamber; the outlet of the grit trap is connected to a sanitary sewer system. A grit trap is not designed to separate oil and water.

(45) [(40)] Grit trap waste--Waste collected in a grit trap. Grit trap waste includes waste from grit traps placed in the drains prior to entering the sewer system at maintenance and repair shops, automobile service stations, car washes, laundries, and other similar establishments. The term does not include material collected in an oil/water separator or in any other similar waste management unit designed to collect oil.

(46) [(41)] Groundwater--Water below the land surface in the saturated zone.

(47) [(42)] Harvesting--Removal of a food, fiber, feed or turf crop from a land application unit by the means [Any act] of cutting, picking, drying, baling, or gathering [, and/or removing vegetation from a field, or storing]. The act of cutting and leaving vegetative material on the land application unit is not considered harvesting.
(48) [(43)] Holocene time--The most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present. Holocene time began approximately 10,000 years ago.

(49) Incinerator--An apparatus for burning sewage sludge or biosolids at high temperatures until it is reduced to ash.

(50) [(44)] Incorporation--Mixing the applied material evenly through the top three inches of soil.

(51) [(45)] Industrial wastewater--Wastewater generated in a commercial or industrial process.

(52) [(46)] Institution--An established organization or corporation, especially of a public nature or where the public has access, such as child care facilities, public buildings, or health care facilities.

(53) Irrigation conveyance canal--A canal that is constructed to convey water from the source of supply to one or more farms.
(54) **Lagoon**--A surface impoundment located on site at a wastewater treatment plant for the storage of sewage sludge or biosolids. Any other type of impoundment must be considered an active disposal unit.

(55) [(47)] **Land application or land apply or land applied**--The spraying or spreading of biosolids, domestic septage, or water treatment residuals [sewage sludge] onto the land surface; the injection of biosolids, domestic septage, or water treatment residuals [sewage sludge] below the land surface; or the incorporation of biosolids, domestic septage, or water treatment residuals [sewage sludge] into the soil to [so that the sewage sludge can] either condition the soil or fertilize crops or vegetation grown in the soil.

(56) **Land application unit**--An area where materials are applied onto or incorporated into the soil surface for beneficial use or for treatment and disposal, where the disposal occurs within five feet of the surface of the land. The term does not include manure spreading operations.

(57) [(48)] **Land with a high potential for public exposure**--Land that the public uses frequently and/or is not provided with a means of restricting public access.
(58) [(49)] Land with a low potential for public exposure--Land that the public uses infrequently and/or is provided with a means of restricting public access.

(59) [(50)] Leachate collection system--A system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a disposal [sludge] unit.

(60) [(51)] Licensed professional geoscientist--A geoscientist who maintains a current license through the Texas Board of Professional Geoscientists in accordance with its requirements for professional practice.

(61) [(52)] Liner--Soil or synthetic material that has a hydraulic conductivity of $1 \times 10^{-7}$ centimeters per second or less. Soil liners must be of suitable material with more than 30% passing a number 200 sieve, have a liquid limit greater than 30%, a plasticity index greater than 15, compaction of greater than 95% Standard Proctor at optimum moisture content, and will be at least two feet thick placed in six-inch lifts. Synthetic liners must be a membrane with a minimum thickness of 20 mils and include an underdrain leak detection system.

(62) [(53)] Lower explosive limit for methane gas--The lowest percentage of methane in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.
(63) [(54)] Major sole-source impairment zone--A watershed that contains a reservoir that is used by a municipality as a sole source of drinking water supply for a population of more than 140,000, inside and outside of its municipal boundaries; and into which at least half of the water flowing 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, at least in part because of concerns regarding pathogens and phosphorus, and for which the commission at some time prepared and submitted a total maximum daily load standard.

(64) [(55)] Metal limit--A numerical value that describes the amount of a metal allowed per unit amount of sewage sludge, biosolids, or water treatment residuals (e.g., milligrams per kilogram of total solids); the amount of a metal [pollutant] that can be applied to or disposed onto a land application unit [area of land] (e.g., kilograms per hectare); or the volume of a material that can be applied to a land application unit [area of land] (e.g., gallons per acre).

(65) [(56)] Monofill--A landfill or landfill trench in which sewage sludge, biosolids, or water treatment residuals are [is] the only type of solid waste placed.

(66) [(57)] Municipality--A city, town, county, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing
entities) created by or under state law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge or biosolids management; or a designated and approved management agency under federal Clean Water Act, §208, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, or an integrated waste management facility as defined in federal Clean Water Act, §201(e), as amended, that has as one of its principal responsibilities the treatment, transport, use, or disposal of sewage sludge or biosolids.

(67) [(58)] Off-site--Property that cannot be characterized as "on-site."

(68) [(59)] On-site--The same or contiguous property owned, controlled, or supervised by the same person. If the property is divided by public or private right-of-way, the access must be by crossing the right-of-way or the right-of-way must be under the control of the person.

(69) [(60)] Operator--The person responsible for the overall operation of a facility, land application unit, or surface disposal site [beneficial use site].

(70) [(61)] Other container--Either an open or closed receptacle, including, but not limited to, a bucket, box, or a vehicle or trailer with a load capacity of one metric ton (2,200 pounds) or less.
Owner--The person who owns a facility or part of a facility.

Pasture--Land that animals feed directly on for feed crops such as legumes, grasses, grain stubble, forbs, or stover.

Pathogenic organisms--Disease-causing organisms including, but not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

Person who prepares sewage sludge or biosolids--Either the person who generates sewage sludge or biosolids during the treatment of domestic sewage in a treatment works or the person who derives a material from sewage sludge or biosolids.

Place or placed sewage sludge or biosolids [or sewage sludge placed]--Disposal of sewage sludge or biosolids on a surface disposal site.

Pollutant--An organic or inorganic substance, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the executive director, cause death, disease, behavioral abnormalities, cancer, genetic
mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

(77) Precipitation--Deposit on the land of rain, mist, hail, sleet, or snow that falls on the ground under the action of gravitational force.

(78) [(68)] Process or processing--For the purposes of this chapter, these terms shall have the same meaning as "treat" or "treatment."

(79) [(69)] Public contact site--Land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and/or golf courses.

(80) [(70)] Range land--Open land with indigenous vegetation.

(81) [(71)] Reclamation site--Drastically disturbed land that is reclaimed using sewage sludge or biosolids. This includes, but is not limited to, strip mines and/or construction sites.

(82) [(72)] Runoff--Rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off of the land surface.
(83) [(73)] Seismic impact zone--An area that has a 10% or greater probability that the horizontal ground level acceleration of the rock in the area exceeds 0.10 gravity once in 250 years.

(84) [(74)] Sewage sludge--Solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in treatment works. Sewage sludge includes, but is not limited to, domestic septage, scum, or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

[(75) Sewage sludge debris--Solid material such as rubber, plastic, glass, or other trash that may pass through a wastewater treatment process or sludge process may be collected with septage. This solid material is visibly distinguishable from sewage sludge. This material does not include grit or screenings removed during the preliminary treatment of domestic sewage at a treatment works, nor does it include grit trap waste.]

[(76) Sludge lagoon--An existing surface impoundment located on site at a wastewater treatment plant for the storage of sewage sludge. Any other type impoundment must be considered an active sludge unit, as defined in this section.]
[77) Sludge unit--Land that only sewage sludge is placed for disposal. A sludge unit must be used for sewage sludge. This does not include land that sewage sludge is either stored or treated.]

[(78) Sludge unit boundary--The outermost perimeter of a surface disposal site.]

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

[(86) Source-separated organic material--As defined in §332.2 of this title (relating to Definitions).]

[(87) Specific oxygen uptake rate--The mass of oxygen consumed per unit time per unit mass of total solids (dry weight basis) [in the sewage sludge].]

[(88) Stabilization--A chemical or biological process that stops the natural fermentation process.]
(89) [(82)] Staging--Temporary holding of sewage sludge, biosolids, domestic septage, or water treatment residuals, at a land application unit [beneficial use site], for up to a maximum of seven calendar days per each staging location, prior to [the] land application [of the sewage sludge].

(90) [(83)] Store or storage--The placement of sewage sludge, biosolids, domestic septage, or water treatment residuals on land or in an enclosed vessel for longer than seven days.

(91) Surface disposal site--An area of land that contains one or more active disposal units.

(92) Surface impoundment--A facility or part of a facility that is a natural topographic depression, human-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), that is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and that is not an injection well. Examples of surface impoundments include: holding, storage, settling, and aeration pits, ponds, and lagoons.

(93) [(84)] Temporary storage--Storage of waste regulated under this chapter by a transporter, which has been approved in writing by the executive director, in accordance with §312.147 of this title (relating to Temporary Storage).
(94) [(85)] Three hundred-sixty-five-day period--A running total that covers the period between land [sludge] application to a site and the nutrient uptake of the feed, food, fiber, or turf [cover] crop.

(95) [(86)] Total solids--The amount of solids in a material [materials in sewage sludge] that remain as residue when the material [if the sewage sludge] is dried at 103 degrees Celsius to 105 degrees Celsius.

(96) [(87)] Transporter--Any person who collects, conveys, or transports sewage sludge, biosolids, water treatment residuals [plant sludges], grit trap waste, grease trap waste, chemical toilet waste, or domestic [and/or] septage by roadway, ship, rail, or other means.

(97) [(88)] Treat or treatment [of sewage sludge]--The preparation of sewage sludge, biosolids, domestic septage, or water treatment residuals for final use or disposal. This includes, but is not limited to, thickening, stabilization, initial alkali addition for pathogen or vector control, and dewatering [of sewage sludge]. This term does not include storage of sewage sludge, biosolids, domestic septage, or water treatment residuals, or subsequent alkali addition for pathogen or vector control.
(98) [(89)] Treatment works--Either a federally owned, publicly owned, or privately-owned [privately owned] device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature, located at an authorized wastewater treatment plant.

(99) Turf crop--Grass and the surface layer of earth held together by its roots that is grown and harvested as sod, sprigs, or plugs, primarily for the establishment of lawns.

(100) [(90)] Unstabilized solids--Organic materials in sewage sludge or biosolids that have not been treated in either an aerobic or anaerobic treatment process.

(101) [(91)] Unstable area--Land subject to natural or human induced forces that may damage the structural components of an active disposal unit or land application [sewage sludge] unit. This includes, but is not limited to, land that the soils are subject to mass movement.

(102) [(92)] Vector attraction--The characteristic of sewage sludge, biosolids, and domestic septage that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.
(103) [(93)] Volatile solids--The amount of the total solids in a material that is [sewage sludge] lost when the material [sewage sludge] is combusted at 550 degrees Celsius in the presence of excess oxygen.

(104) Waste pile--Any noncontainerized accumulation of solid, nonflowing waste that is used for treatment or storage.

(105) [(94)] Water treatment residuals [sludge]--Material [sludge] generated during the treatment of either surface water or groundwater for potable use, which is not an industrial solid waste as defined in §335.1 of this title (relating to Definitions).

(106) [(95)] Wetlands--Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

§312.9. [Sludge] Fee Program.

(a) The following words and terms, when used in this section, have the following meanings, unless the context clearly indicates otherwise.
(1) Annual fee--A fee charged to each person holding a registration or permit under the commission's authority in Texas Health and Safety Code, Chapter 361, or a permit issued under the commission's authority in Texas Water Code, Chapter 26, except that a fee will not be assessed under this chapter as specified in §312.5 of this title (relating to Relationship to Other Requirements).

(2) Reported--Information compiled and submitted to the executive director [commission] that tracks the amount of waste being stored, treated, processed, transported, or disposed of in the state; tracks the amount of processing, transporting, and disposal capacity and reserve capacity; and enables equitable assessment and collection of fees.

(3) Payment--Receipt by the executive director [commission] of the full amount of the annual fee(s) due.

(b) Except as provided in subsection (f) of this section, the amount of the annual fee that is assessed is determined by weight of solids disposed of and reported to the executive director [commission] as of September 30th [30th] of each year (reporting period September 1st of previous year to August 31st of current year). Failure to report this information [the disposal of sewage sludge or water treatment sludge] does not exempt a registrant or permittee from this fee. The fees are as follows.
(1) The minimum fee assessed against each registration or permit is $100, regardless of whether the site is active or inactive.

(2) When water treatment residuals are [sludge is] mixed with a Class B biosolids [sewage sludge] or when Class B biosolids are land applied, [sewage sludge that is classified as Class B is applied to the land for beneficial use as described in Subchapter B of this chapter (relating to Land Application for Beneficial Use and Storage at Beneficial Use Sites)] the fee is $0.75 per dry ton.

[(3) When sewage sludge or water treatment sludge is applied to a site for disposal and the disposal was authorized by the commission or predecessor agency prior to October 1, 1995, the fee is $1.25 per dry ton.]

(3) [(4)] When biosolids are [sewage sludge is] applied to a site for disposal or when water treatment residuals are [sludge is] applied to a site for disposal and the activity requires a permit as specified in Subchapter F of this chapter (relating to Land Application, Storage, and Disposal of Water Treatment Residuals [Sludge]), [and the disposal is authorized by the commission or predecessor agency on October 1, 1995, or thereafter,] the fee is $1.25 per ton.
(4) [(5)] When water treatment residuals are [sludge is] applied to a site for beneficial use or disposal and the activity does not require a permit as specified in Subchapter F of this chapter, the fee is $0.20 per dry ton.

(5) [(6)] When sewage sludge or biosolids are [is] fired in an [a sewage sludge] incinerator [as described in Subchapter E of this chapter (relating to Guidelines and Standards for Sludge Incineration)], the fee is $1.25 per dry ton.

(c) An annual transporter fee is assessed against each person or entity holding a registration to transport sewage sludge, biosolids, water treatment residuals [sludge], domestic septage, chemical toilet waste, grease trap waste, or grit trap waste issued in accordance with Subchapter G of this chapter (relating to Transporters and Temporary Storage Provisions). The amount of the annual fee must be based upon the total annual volume of waste transported by the transporter under each registration and reported to the executive director [commission] as of June 15th [15], each year. Failure to report the transportation of waste does not exempt a registrant from this fee. The fees are as follows.

(1) For a total annual volume transported of 10,000 gallons (50 cubic yards) or less, the fee is $100.
(2) For a total annual volume transported greater than 10,000 gallons (50 cubic yards) but equal to or less than 50,000 (250 cubic yards), the fee is $250.

(3) For a total annual volume transported greater than 50,000 gallons (250 cubic yards) but equal to or less than 200,000 gallons (1,000 cubic yards), the fee is $400.

(4) For a total annual volume transported of greater than 200,000 gallons (1,000 cubic yards), the fee is $500.

(d) Permit [Sludge permit] and registration holders shall submit [the] annual reports in accordance with §312.48(1) of this title (relating to Reporting) no later than September 30th [30] of each calendar year, for a reporting period covering September 1st [1] of the previous calendar year to August 31st [31] of the current calendar year. Fees assessed in subsection (b) of this section must be paid by the registrant or permittee on or before the due date specified in the invoice each year. Fees assessed in subsection (c) of this section must be paid by the registrant after billing by the executive director, prior to September 1st [1], of each year. Fees must be paid by check, certified check, or money order payable to the Texas Commission on Environmental Quality. The permittee or registrant of a facility failing to make payment of the fees imposed under this subchapter when due shall be assessed penalties and interest in accordance with Chapter 12 of this title (relating to Payment of Fees).
(e) Failure of the registrant or permittee to submit the required fee within 30 days of billing, shall be sufficient cause for the commission to revoke the registration or permit and authorization to process or dispose of waste. Any entity to whom a registration or permit is transferred shall be liable for payment of the annual fee on the same basis as the transferor.

(f) No fee will be assessed for sewage sludge, biosolids, or water treatment residuals [sludge] composted with source-separated organic material at a composting facility, including a composting facility located at a permitted landfill site. This subsection does not apply if the biosolids or residuals are [sludge is] not used as compost and are [is] deposited in a surface disposal site or landfill.

(g) Applicants [Sludge permit holders] shall submit permit application fees for Class B biosolids permit applications [sewage sludge].

(1) Any person who applies for a new permit, permit renewal, or permit amendment shall pay a permit application fee. The fees in this subsection relating to application for a permit, permit renewal, or major amendment supersede [supercede] the fees in §305.53 of this title (relating to Application Fee). An application for a minor amendment or permit transfer must be submitted in accordance with §305.53 of this title. The commission may not consider an application for final decision until such
time as the permit application fee is paid. All permit application fees must be made payable to the commission and paid at the time the application for a permit is submitted.

(2) The executive director may not process an application until all delinquent annual fees and delinquent administrative penalties owed the commission by the applicant or for the site as delineated in the permit application are paid in full. Any permittee to whom a permit is transferred shall be liable for payment of the annual fees assessed for the permitted entity/site on the same basis as the transferor of the permit, as well as any outstanding fees and associated penalties owed the commission. If the applicant is not the permittee at the time fees become delinquent or against whom administrative penalties are assessed, the executive director may for good cause waive the applicant’s liability under this subsection for payment of delinquent annual fees or delinquent administrative penalties.

(3) An applicant may file a written request for a refund in the amount of 50% of the permit application fee paid if the permit is not issued. No fees will be refunded after a new permit, permit renewal, permit modification, permit amendment, or permit transfer has been issued by the commission. Transfer of a permit will not entitle the transferor permittee to a refund, in whole or part, of any fee already paid by that permittee.
(4) The permit application fees will be between $1,000 and $5,000, based on the quantity of biosolids [sewage sludge] to be applied annually under the permit, as shown in the following schedule:

(A) $1,000, if the quantity is 2,000 dry tons or less;

(B) $2,000, if the quantity is greater than 2,000 dry tons but less than or equal to 5,000 dry tons;

(C) $3,000, if the quantity is greater than 5,000 dry tons but less than or equal to 10,000 dry tons;

(D) $4,000, if the quantity is greater than 10,000 dry tons but less than or equal to 20,000 dry tons; or

(E) $5,000, if the quantity is greater than 20,000 dry tons.

§312.10. Permit and Registration Applications Processing.

(a) Applications for permits, registrations, or other types of approvals required by this subchapter shall be reviewed by staff for administrative completeness within 14 calendar days of receipt of the application by the executive director.
(b) Permit and registration applications must include all information required by §312.11 of this title (relating to Permits), §312.12 of this title (relating to Registrations), or §312.142 of this title (relating to Transporter Registration).

(c) Upon receipt of an application for a permit or registration, excluding transportation registrations, the executive director shall assign the application a number for identification purposes, and prepare a Notice of Receipt of Application and Declaration of Administrative Completeness for domestic septage registrations or Notice of Receipt of Application and Intent to Obtain Permit for permits where applicable, which is suitable for publishing or mailing, and forward that notice to the Office of the Chief Clerk. The Office of the Chief Clerk shall notify every person entitled to notification of a particular application as described in §312.13 of this title (relating to Actions and Notice).

(d) The Notice of Receipt of Application and Declaration of Administrative Completeness for domestic septage registrations or Notice of Receipt of Application and Intent to Obtain Permit for permit where applicable, must contain the information required by Chapter 39 of this title (relating to Public Notice), Texas Water Code, §5.552(c), and the approximate anticipated date of the first land application of Class B biosolids [sludge] to the proposed land application unit.
(e) For land application, processing, disposal, storage, or incineration permits or sewage sludge, biosolids, or water treatment residuals permit applications and draft permits, nothing in this section shall be construed so as to waive the notice and processing requirements concerning the application and the draft permit in accordance with Chapter 39, Subchapters H and J of this title (relating to Applicability and General Provisions and Public Notice of Water Quality Applications and Water Quality Management Plans), Chapter 50, Subchapters E - G of this title (relating to Purpose, Applicability, and Definitions; Action by the Commission; and Action by the Executive Director), Chapter 55, Subchapters D - F of this title (relating to Applicability and Definitions; Public Comment and Public Meetings; and Requests for Reconsideration or Contested Case Hearing), or Chapter 305, Subchapters C, D, and F of this title (relating to Application for Permit or Post-Closure Order; Amendments, Renewals, Transfers, Corrections, Revocation, and Suspension of Permits; and Permit Characteristics and Conditions) [for applications for sewage sludge land application, processing, disposal, storage, or incineration permits].

(f) All permit applications for sewage sludge land application, processing, disposal, storage, or incineration of sewage sludge, biosolids, or water treatment residuals are subject to the application processing procedures and requirements in §§281.18 - 281.24 of this title (relating to Applications Returned; Technical Review; Extension; Draft Permit, Technical Summary, Fact Sheet, and Compliance History; Referral to Commission; Application Amendment; and Effect of Rules).
(g) All registration applications for Class A biosolids [sewage sludge], Class AB biosolids [sewage sludge], water treatment residuals [plant sludge], and domestic septage are subject to the application processing procedures and requirements in §§281.18 - 281.20 of this title.

(h) A registration or permit will be cancelled upon receipt of a written request for cancellation from either the site operator or landowner. The executive director will provide notice to the other party that cancellation has been requested and that cancellation will occur ten days from the issuance of notice. This notice is provided merely as a courtesy by the executive director [commission] and is not mandatory for cancellation.

(i) To transfer a registration or permit, both the site operator and the landowner must sign the transfer application. An application for transfer that is not signed by both the site operator and the landowner will be considered a request for cancellation.

(j) If a registration or permit for a site is cancelled, a complete application for registration or permit must be submitted in order to reauthorize the site. If the application is approved, the site will be authorized under the same site registration or permit number.
(k) For permits, a major amendment is defined in Chapter 305, Subchapter D of this title. For purposes of this chapter concerning registrations and except as provided in subsection (l) of this section, a major amendment for a registration is an amendment that changes a substantive term, provision, requirement, or a limiting parameter of a registration or a substantive change in the information provided in an application for registration. Changes to registrations that are not considered major include, but are not limited to, typographical errors, changes that result in more stringent monitoring requirements, changes in site ownership, changes in site operator, or similar administrative information.

(l) Upon the effective date of this chapter, the executive director will process as a minor amendment a request by an existing permittee or registrant to change any substantive term, provision, requirement, or a limiting parameter in a permit or registration that implemented prior regulations of the commission, when it is no longer a requirement of this chapter. Notice requirements of §312.13 of this title are not applicable to a minor amendment for a registration.

(m) Term limits for registrations or permits may not exceed five years.

§312.11. Permits.
(a) The provisions of this section set the standards and requirements for permit applications [to land apply, process, store, dispose of, or incinerate sewage sludge.] Any information provided under this subsection must be submitted in quadruplicate form. A permit is required to:

(1) land apply Class B biosolids;

(2) process (at a treatment works), store, dispose of, or incinerate sewage sludge;

(3) process (at a treatment works), store, dispose of, or incinerate biosolids; or

(4) disposal of water treatment residuals in a monofill.

(b) Any person who is required to obtain or who requests a new permit or an amendment, modification, or renewal of a permit under this section is subject to the permit application procedures of §1.5(d) of this title (relating to Records of the Agency), §305.42(a) of this title (relating to Application Required), §305.43 of this title (relating to Who Applies), §305.44 of this title (relating to Signatories to Applications), §305.45 of this title (relating to Contents of Application for Permit), and §305.47 of
this title (relating to Retention of Application Data). For a land application permit, the applicant must be:

(1) the owner of the application site, if the [sewage sludge] biosolids were [was] generated outside this state; or

(2) the site operator, if the [sewage sludge] biosolids were [was] generated in this state.

(c) A permit application must include all information in accordance with Chapter 281, Subchapter A of this title (relating to Applications Processing) and Chapter 305, Subchapter C of this title (relating to Application for Permit or Post-Closure Order), and must also include the following:

(1) the map required by §305.45(a)(6) of this title that provides the following information:

   (A) the approximate boundaries of the site to be permitted, which must include all contiguous properties owned by or under the control of the applicant;

   (B) the name and mailing address of the owner of each tract of land located:
(i) within 1/4 mile of the land application unit [site to be permitted], as such information can be determined from the current county tax rolls or other reliable sources, at the time the application is filed [or, other reliable sources,] for a Class B biosolids land application permit [sewage sludge beneficial land use permit applications submitted on or after September 1, 2003, or applications submitted before September 1, 2003, but not administratively complete by the commission by that date];

(ii) within 1/2 mile of a disposal unit or incinerator [the site to be permitted], as such information can be determined from the current county tax rolls or other reliable sources, at the time the application is filed for an [for a sewage sludge] incineration or disposal permit [application]; and

(iii) adjacent to the site to be permitted, as such information can be determined from the current county tax rolls or other reliable sources, at the time the application is filed for a biosolids [domestic septage Class B sewage sludge beneficial use land application,] or sewage sludge processing or storage facility;

(C) the source(s) of the information for the surrounding property owners; and
(D) the list of property owners. The list must be provided both as a hard copy, either on the map or as an attached list, and in electronic format or on four sets of self-adhesive mailing labels; and

(2) a notarized affidavit from the applicant(s) verifying land ownership of the permitted site or landowner agreement to the proposed activity.

(d) A permit application for land application of Class B biosolids [sewage sludge] must also include the following information:

(1) the information listed in §312.12(a)(1)(A) - (C) [§312.12(b)(1)(A) - (C)] of this title (relating to Registrations);

(2) analytical results establishing the background soil concentration of metals regulated by this chapter in each land application unit [the application area(s)], based on the following:

(A) samples taken from the zero to six-inch zone of soil [to be affected by the addition of sewage sludge (including domestic septage)];
(B) soil samples that accurately show soil conditions in the application area(s) and that are taken at a spatial distribution of at least one composite sample per every 80 acres or less of soil type or area being sampled;

(C) composite samples comprised of ten to 15 samples taken from points randomly distributed across the entire soil type or area(s) being sampled;

(D) a separate composite sample taken from each United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil type (soils with the same characterization or texture), unless an alternate method is used; and

(E) when using an alternate method for defining areas to be sampled such as sampling by agricultural management units or other defined areas, a sampling plan included in the application, which sufficiently establishes background soil conditions through proportionate sampling of each USDA NRCS soil type in each area sampled;

(3) analytical results establishing the background soil concentration of nutrients, salinity, and pH in each land application unit [the application area(s)], based on the following:
(A) separate samples taken from the zero to six-inch and from the six to 24-inch zones of soil [to be affected by the addition of sewage sludge (including domestic septage)];

(B) soil samples that accurately show soil conditions in the land application unit [area(s)] and that are taken at a spatial distribution of at least one composite sample per every 80 acres or less of soil type or area being sampled;

(C) composite samples comprised of ten to 15 samples taken from points randomly distributed across the entire soil type or area(s) being sampled;

(D) a separate composite sample taken from each USDA NRCS soil type (soils with the same characterization or texture), unless an alternate method is used;

(E) when using an alternate method for defining areas to be sampled such as sampling by agricultural management units or other defined areas, a sampling plan also included in the application, which sufficiently establishes background soil conditions through proportionate sampling of each USDA NRCS soil type in each area sampled;
(4) information necessary to identify the hydrological characteristics of the surface water and groundwater within 1/4 mile of the land application unit [site to be permitted];

(5) except for applications by political subdivisions, proof of a commercial liability insurance policy and an environmental impairment policy or a similar policy in accordance with Chapter 37, Subchapter V of this title (relating to Financial Assurance for Class B Sewage Sludge for Land Application Units); and

(6) proof that the applicant has minimized the risk of water quality impairment caused by nitrogen applied to the land application unit through the application of Class B biosolids [sewage sludge] by having had a nutrient management plan prepared by a certified nutrient management specialist in accordance with the NRCS Practice Standard Code 590.

(e) A permittee of a Class B biosolids [sewage sludge] land application unit [site] shall comply with the requirements of Chapter 37, Subchapter V of this title.

(f) Any person who is issued a permit under this section [to land apply, or to process, store, dispose of, or incinerate sewage sludge,] is subject to the permit characteristics and standards set forth in §305.122 of this title (relating to Characteristics of Permits), §305.123 of this title (relating to Reservation in Granting
(g) If any provision of a permit is violated during its term, the permittee [permit holder] is required to report to the executive director the noncompliance in accordance with Texas Health and Safety Code, §361.121(d)(5) and §305.125(9) of this title. Each permit for the land application of Class B biosolids [sewage sludge] must contain a provision requiring such reporting. Report of such information must be provided orally or by facsimile transmission (fax) to the appropriate regional office within 24 hours of the permittee [permit holder] becoming aware of the noncompliance. A written submission of such information must also be provided by the permittee [permit holder] to the regional office and to the Enforcement Division at the commission's Central Office (Mail Code 224) within five working days of becoming aware of the noncompliance. The written submission must contain the following information:

(1) a description of the noncompliance and its cause;
(2) the potential danger to human health, safety, or the environment;

(3) the period of noncompliance, including exact dates and times;

(4) if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

(5) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

(h) Each biosolids [sewage sludge] land application permit must include a reference to the maximum quantity of biosolids [sewage sludge] that may be land applied under the permit.

(i) Any permittee who requests a new permit or an amendment, modification, or renewal of a permit under this section [to land apply, process, store, dispose of, or incinerate sewage sludge] is subject to the standards and requirements for applications and actions concerning amendments, modifications, renewals, transfers, corrections, revocations, denials, and suspensions of permits, as set forth in §305.62 of this title (relating to Amendments), §305.63 of this title (relating to Renewal), §305.64 of this title (relating to Transfer of Permits), §305.65 of this title (relating to Renewal), §305.66 of this title (relating to Permit Denial, Suspension, and Revocation),...
§305.67 of this title (relating to Revocation and Suspension upon Request or Consent), and §305.68 of this title (relating to Action and Notice on Petition for Revocation or Suspension).

(j) The permittee shall immediately provide written notice to the executive director of any changes to a permit or to information on soil or subsurface conditions at the site, and provide any additional information concerning changes in land ownership, site control, operator, waste composition, source of biosolids [sewage sludge], or waste management methods.

(k) For land application units [sites] located in a major sole-source impairment zone, the permittee is subject to the following provisions.

(1) The operator shall have a nutrient management plan (nitrogen and phosphorus) prepared by a certified nutrient management specialist in accordance with the USDA NRCS Practice Standard Code 590;

(2) When results of the annual soil analysis for extractable phosphorus indicate a level greater than 200 parts per million of extractable phosphorus (reported as P) in the zero to six-inch sample for a particular land application unit [field] or if ordered by the commission in order to protect the quality of water in the state, then the operator may not apply any biosolids [sewage sludge] to the affected area unless
the land application is implemented in accordance with a detailed nutrient utilization plan (NUP) that has been approved by the commission.

(3) A NUP is equivalent to the NRCS Nutrient Management Plan Practice Standard Code 590. The nutrient management plan, based on crop removal, must be developed and certified by one of the following individuals or entities:

(A) an employee of the NRCS;

(B) a nutrient management specialist certified by the NRCS;

(C) the Texas State Soil and Water Conservation Board;

(D) Texas Cooperative Extension;

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

(F) a professional agronomist certified by the American Society of Agronomy;
(G) a certified professional soil scientist certified by the Soil Science Society of America; or

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

(4) After a NUP is implemented, the operator shall land apply in accordance with the NUP until soil phosphorus is reduced below 200 parts per million in the zero to six-inch sample. Thereafter, the operator shall implement the requirements of the nutrient management plan.

(5) The buffer zones must be maintained according to the applicable requirements specified in §312.44(c) of this title (relating to Management Practices).

§312.12. Registrations.

[(a) After August 31, 2003, all registrations for the beneficial use of Class B sewage sludge will be void. Registrations for the beneficial use of Class A sewage sludge, water treatment plant sludge, and/or domestic septage will remain valid until they expire, are renewed, are cancelled, or are revoked.]
(a) Except as provided in §312.4(b) of this title (relating to Required Authorizations or Notifications), an applicant for a registration to land apply Class A biosolids [sewage sludge], Class AB biosolids [sewage sludge], water treatment residuals [sludge], and [and/or] domestic septage shall:

(1) submit to the executive director an original, completed application form approved by the executive director, along with the appropriate number of copies of the registration application. Each applicant shall submit to the executive director such information as may reasonably be required to enable the executive director to determine whether such land application for beneficial use activities are compliant with the terms of this chapter. Such information may include, but is not limited to, the following:

(A) a description and composition of the material to be land applied;

(B) a description of all processes generating the material to be land applied at the site;

(C) information about the site and the planned management of the material to be land applied, including the name, address, and telephone number of any landowner or operator at the site and the following information:
(i) whether such material is managed on site and/or off site from its point of generation;

(ii) a description of each on-site land application unit [beneficial use unit or tract], including the name, address, and telephone number of all landowners, or the same information from a landowner acting as a spokesperson(s) for all the landowners, so long as the spokesperson submits to the executive director a sworn statement allowing the spokesperson to act for other persons;

(iii) a listing of the types of material to be land applied on each land application unit [managed in each unit or tract];

(iv) a detailed description of the beneficial use occurring at each land application unit [or tract of land] where application of Class A or Class AB biosolids [sewage sludge], water treatment residuals [sludge], and [and/or] domestic septage is proposed, including proposed waste management and crop production methods; and

(v) information regarding soil characteristics and subsurface conditions where the land application unit [site] will be located;

(D) the verified legal status of the applicant(s), as applicable;
(E) the notarized signature of each applicant, in accordance with §305.44 of this title (relating to Signatories to Applications);

(F) a notarized affidavit from the applicant(s) verifying land ownership or landowner agreement to the proposed activity;

(G) technical reports and supporting data required by the application;

(H) for applications for major amendments or new registrations, information concerning surrounding landowners, including the following, as applicable:

   (i) a map depicting the approximate boundaries of the tract of land owned or under the control of the applicant and each residential or business address and owner of all the tracts of land bordering the perimeter of any portion of the site;

   (ii) a list on or attached to the map of the names and addresses of the owners of such tracts of land as can be determined from the current county tax rolls at the time the application is filed, and other reliable sources. The list
of property owners must be provided in both hard copy and either in electronic format or on four sets of self-adhesive mailing labels; and

(iii) the source of the information;

(I) analytical results establishing the background soil concentration of metals regulated by this chapter in each land application unit [the application area(s)], as applicable, based on the following:

(i) samples taken from the zero to six-inch zone of soil [to be affected by the addition of sewage sludge (including domestic septage)];

(ii) soil samples that accurately show soil conditions in each land application unit [the application area(s)] and that are taken at a spatial distribution of at least one composite sample per every 80 acres or less of soil type or area being sampled;

(iii) composite samples comprised of ten to 15 samples taken from points randomly distributed across the entire soil type or area(s) being sampled;
(iv) a separate composite sample taken from each United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil type (soils with the same characterization or texture), unless an alternate method is used;

(v) when using an alternate method for defining areas to be sampled such as sampling by agricultural management units or other defined areas, a sampling plan also included in the application, which sufficiently establishes background soil conditions through proportionate sampling of each USDA NRCS soil type in each area sampled;

(J) analytical results establishing the background soil concentration of nutrients, salinity, and pH in each land application unit [the application area(s)], as applicable, based on the following:

(i) separate samples taken from the zero to six-inch and from the six to 24-inch zones of soil [to be affected by the addition of sewage sludge (including domestic septage)];

(ii) soil samples that accurately show soil conditions in each land application unit [the application area(s)] and that are taken at a spatial...
distribution of at least one composite sample per every 80 acres or less of soil type or area being sampled;

(iii) composite samples comprised of ten to 15 samples taken from points randomly distributed across the entire soil type or area(s) being sampled;

(iv) a separate composite sample taken from each USDA NRCS soil type (soils with the same characterization or texture), unless an alternate method is used;

(v) when using an alternate method for defining areas to be sampled such as sampling by agricultural management units or other defined areas, a sampling plan also included in the application, which sufficiently establishes background soil conditions through proportionate sampling of each USDA NRCS soil type in each area sampled;

(K) any information provided under this paragraph submitted to the executive director in quadruplicate form;

(2) immediately provide written notice to the executive director of any changes, requests for an amendment, modification, or renewal of a registration, or any
additional information concerning changes in land ownership, changes in site control, or operator, changes in waste composition, changes in the source of biosolids or water treatment residuals, [sewage sludge,] or waste management methods, and information regarding soils and subsurface conditions where the operation is to be located. Any information provided under this paragraph must be submitted to the executive director in duplicate form.

(b) [(c)] The executive director shall determine, after review of any application, whether to approve or deny an application in whole or in part, deny with prejudice, suspend the authority to conduct an activity for a specified period of time, or amend or modify the proposed activity requested by the applicant. The determination of the executive director shall include review and action on any new applications or changes, renewals, and requests for major amendment of any existing application. In consideration of such an application, the executive director shall consider all relevant requirements of this chapter and consider all information pertaining to those requirements received by the executive director regarding the application. The written determination on any application, including any authorization granted, shall be mailed to the applicant upon the decision of the executive director.

(c) [(d)] At the same time that the executive director's decision is mailed to the applicant, notice of this decision must also be mailed to all parties who submitted
written information on the application, as described in §312.13(c)(2) and (3) of this title (relating to Actions and Notice).

(d) [(e)] For registered land application units [sites] located in a major sole-source impairment zone, the registrant must comply with the provisions listed in §312.11(k) of this title (relating to Permits).

§312.13. Actions and Notice.

(a) Applicability. This section sets forth the way [manner] in which action will be taken on applications filed with the executive director for either a permit or a registration to land apply, store, process, dispose of, or incinerate sewage sludge, biosolids, water treatment residuals, or domestic septage.

(b) Permit actions.

(1) All permit applications are subject to the standards and requirements as set forth in Chapter 39, Subchapters H - J of this title (relating to Applicability and General Provisions; Public Notice of Solid Waste Applications; and Public Notice of Water Quality Applications and Water Quality Management Plans), Chapter 50, Subchapters E - G of this title (relating to Purpose, Applicability, and Definitions; Action by the Commission; and Action by the Executive Director), and Chapter 55,
Subchapters D - F of this title (relating to Applicability and Definitions; Public Comment and Public Meetings; and Requests for Reconsideration or Contested Case Hearing).

(2) For disposal and incineration permit applications, notice must be provided to all owners of properties within 1/2 mile of the border of any portion of the tract of land where the permitted activities would occur. For beneficial use (excluding Class B biosolids [sewage sludge]), processing, and storage permit applications, notice must be provided to all owners of properties adjacent to any portion of the tract of land where the permitted activities will occur. The tract of land includes all contiguous properties under the ownership or control of the applicant.

(3) For Class B biosolids [sewage sludge] beneficial land use permit applications:

(A) notice must be provided under Chapter 39 of this title (relating to Public Notice) and under Texas Water Code, §5.552. The notice must also contain the anticipated date of the first land application of biosolids [sludge] to the proposed land application unit. An applicant for a new permit, permit amendment, or permit renewal under Texas Health and Safety Code, §361.121(c), shall notify by registered or certified mail each owner of land located within 1/4 mile of the proposed land application unit who lives on that land; and
(B) an owner of the land located within 1/4 mile of the proposed land application unit who lives on the land is considered an "affected person" for purposes of Texas Water Code, §5.115, and Chapter 55 of this title (relating to Requests for Reconsideration and Contested Case Hearings; Public Comment). Individuals who do not own land within 1/4 mile of the proposed land application unit [site] are not excluded from being considered "affected persons" under §55.203 of this title (relating to Determination of Affected Person).

(c) Registration actions.

(1) The public notice requirements of this subsection apply to new applications for a registration, and to applications for major amendment of a registration. The requirements of this subsection do not apply to sites where only Class A or Class AB biosolids [sewage sludge] that has been authorized for marketing and distribution are [is] to be land applied for beneficial use or registrations for beneficial land use or disposal of water treatment residuals in a land application unit, surface impoundment, or waste pile [water treatment sludge].

(2) The Office of the Chief Clerk shall mail the Notice of Receipt of Application and Declaration of Administrative Completeness along with a copy of the registration application to the county judge in the county where the proposed site is to be located.
(3) The Office of the Chief Clerk shall mail the Notice of Receipt of Application and Declaration of Administrative Completeness to the landowners named on the application map or supplemental map, or the sheet attached to the application map or supplemental map.

(4) Each notice must specify both the name, affiliation, address, and telephone number of the applicant and of the executive director staff [commission employee] who may be reached to obtain more information about the application to register the site. The notice must specify that the registration application has been provided to the county judge and that it is available for review by interested parties.

(5) Any application for a registration is subject to the standards and requirements for actions concerning amendments, modifications, transfers, and renewals of registrations, as set forth in Chapter 50, Subchapter G of this title.

(d) Public comment on registrations. A person may provide the commission with written comments on any new or major amendment applications to register a site, where applicable. The executive director shall review any written comments when they are received within 30 days of mailing the notice. The written information received will be considered [utilized] by the executive director in determining what action to take on the application for registration in accordance with §312.12(b) [§312.12(c)] of this title (relating to Registrations).
(e) Motion to overturn. The applicant, public interest counsel, or other person may file with the chief clerk a motion to overturn under §50.139 of this title (relating to Motion to Overturn Executive Director's Decision) to overturn the executive director's final approval or denial of an application.
SUBCHAPTER B: LAND APPLICATION [FOR BENEFICIAL USE] AND STORAGE OF BIOSOLIDS AND DOMESTIC SEPTAGE [AT BENEFICIAL USE SITES]

§§312.41 - 312.50

Statutory Authority

These amendments are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants into or adjacent
to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.41. Applicability.

(a) Application to land. This subchapter applies to any person who prepares biosolids and/or domestic septage that are land applied [sewage sludge that is applied to the land], to any person who land applies biosolids and/or domestic septage [sewage sludge to the land], to biosolids and/or domestic septage that are land applied [sewage sludge applied to the land], and to the land on which biosolids and/or domestic septage are [sewage sludge is] applied.

(b) Bulk biosolids [sewage sludge].

(1) When bulk biosolids are land applied [sewage sludge is applied to the land] and do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title (relating to Metal Limits), meets the Class A biosolids [sewage sludge]
pathogen requirements in §312.82(a)(3) of this title (relating to Pathogen Reduction), and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction), then the provisions of §312.42 of this title (relating to General Requirements) and §312.44 of this title (relating to Management Practices) do not apply with the exception of §312.44(a), (b), (h)(3), (j), and (m) of this title.

(A) When bulk biosolids are land applied [sewage sludge] that do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class AB pathogen requirements in §312.82(a)(2) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title, [is applied to the land,] then §312.44(a), (b), (c)(2)(D) and (E), (d), (h)(1), (3), (5) and (6), (j), (l), and (m) of this title will apply to the land application of biosolids [sewage sludge].

(B) When bulk biosolids are land applied [sewage sludge] that do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class AB pathogen requirements in §312.82(a)(2) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) in addition to (9) or (10) of this title, then the requirements in subparagraph (A) of this paragraph do not apply with the exception of §312.44(a), (b), (h)(3), (j), and (m) of this title.
(2) The executive director may apply any or all of §312.42 and §312.44 of this title to the bulk biosolids [sewage sludge] described in this subsection on a case-by-case basis after determining that the general requirements or management practices are needed to protect human [public] health or [and] the environment from any reasonably anticipated adverse effect that may occur from any metal in the bulk biosolids [sewage sludge].

(c) General Requirements for Bulk Derived Materials.

(1) When derived material from biosolids are land applied [sewage sludge is applied to the land] and do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class A pathogen requirements in §312.82(a)(3) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title, then the provisions of §312.42 and §312.44 of this title do not apply with the exception of §312.44(a), (b), (h)(3), (j), and (m) of this title.

(A) When bulk biosolids are land applied [sewage sludge] that do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class AB pathogen requirements in §312.82(a)(2) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title [is applied to the land], then §312.44(a), (b), (c)(2)(D) and (E), (d), (h)(1), (3), (5), and (6), (j), (l), and (m) of this title will apply to the land application of biosolids [sewage sludge].
(B) When bulk biosolids are land applied [sewage sludge] that do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class AB pathogen requirements in §312.82(a)(2) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) in addition to (9) or (10) of this title, [is applied to the land,] then the requirements in subsection (b)(1)(A) of this section do not apply with the exception of §312.44(a), (b), (h)(3), (j), and (m) of this title.

(2) The executive director may apply any or all of §312.42 and §312.44 of this title to the bulk material described in this subsection on a case-by-case basis after determining that the general requirements or management practices are needed to protect human [public] health or [and] the environment from any reasonably anticipated adverse effect that may occur from any metal in the bulk sewage sludge.

(d) Special Requirements for Certain Bulk Derived Materials. The requirements in this subchapter may not apply when a bulk material derived from biosolids are land applied [sewage sludge is applied to the land]; if the biosolids [sewage sludge] from which the bulk material is derived do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class A or Class AB pathogen requirements in §312.82(a) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title. The executive director may
apply any or all of §312.42 and §312.44 of this title to the bulk derived material on a
case-by-case basis after determining that the general requirements or management
practices are needed to protect human [public] health or [and] the environment from
any reasonably anticipated adverse effect that may occur from any metal in the
biosolids [sewage sludge].

(e) Bagged biosolids. [sludge. Sewage sludge sold or given away in a bag or other
container for application to the land.] Section 312.42 and §312.44 of this title may not
apply when biosolids are [sewage sludge is] sold or given away in a bag or other
container for land application [to the land] if the biosolids [sewage sludge sold or given
away in a bag or other container for application to the land] do not exceed [meets] the
metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class A or Class
AB pathogen requirements in §312.82(a) of this title, and meets one of the vector
attraction reduction requirements in §312.83(b)(1) - (8) of this title.

(f) Bagged derived materials. Section 312.42 and §312.44 of this title may not
apply when a material derived from biosolids are [sewage sludge is] sold or given away
in a bag or other container for land application [to the land] if the derived material
does not exceed [meets] the metal concentrations in §312.43(b) of this title, meets the
Class A or Class AB pathogen requirements in §312.82(a) of this title, and meets one of
the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title.
(g) Bagged materials. The requirements in this subchapter may not apply when a material derived from biosolids [sewage sludge] is sold or given away in a bag or other container for land application [to the land] if the biosolids [sewage sludge] from which the material is derived do not exceed [meets] the metal concentrations in Table 3 of §312.43(b)(3) of this title, meets the Class A or Class AB pathogen requirements in §312.82(a) of this title, and meets one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title.

§312.42. General Requirements.

(a) No person shall land apply biosolids and/or domestic septage [sewage sludge, including domestic septage, to the land] except in accordance with the requirements in this subchapter.

(b) No person shall apply biosolids [sewage sludge] that exceeds [does not meet] the metal concentrations in Table 3 of §312.43(b)(3) of this title (relating to Metal Limits) to land where any of the cumulative metal loading rates in Table 2 of §312.43(b)(2) of this title have been exceeded [reached].

(c) No person shall apply domestic septage to agricultural land, forest, or a reclamation site during a 365-day period where the annual application rate in §312.43(c) of this title has been exceeded [reached].
(d) The person who land applies biosolids and/or domestic septage [sewage sludge, including domestic septage, to the land] shall obtain information needed to comply with the requirements in this subchapter.

(e) If a treatment works provides bulk biosolids [sewage sludge] to a person who land applies the bulk biosolids [sewage sludge to the land], the treatment works shall provide the person who land applies the bulk biosolids [sewage sludge to the land] notice and necessary information to comply with the requirements in this subchapter.

(f) If a treatment works provides bulk biosolids [sewage sludge] to a person who prepares the bulk biosolids [sewage sludge] for land application [to the land], the treatment works shall provide the person who prepares the bulk biosolids [sewage sludge for application to the land] notice and necessary information to comply with the requirements in this subchapter.

(g) The person who land applies bulk biosolids [sewage sludge to the land] shall provide the owner or lease-holder of the land on which the bulk biosolids are [sewage sludge is] applied notice and necessary information to comply with the requirements in this subchapter.

(h) If a treatment works provides biosolids [sewage sludge] to a person who prepares the biosolids [sewage sludge] for sale or give away in a bag or other container
for land application [to the land], the treatment works shall provide the person who prepares the biosolids [sewage sludge for sale or give away in a bag or other container for application to the land] notice and information to comply with the requirements in this subchapter.

(i) The applicant shall determine the concentration of regulated metals in accordance with §312.12(a)(1)(I) [§312.12(b)(1)(I)] of this title (relating to Registrations) and demonstrate to the satisfaction of the executive director [commission] that the proposed cumulative metal loading will not result in a toxic [non-toxic] condition or increase [reduce] the toxicity of the existing soil.

§312.43. Metal Limits.

(a) Biosolids [Sewage sludge].

(1) Bulk biosolids [sewage sludge] or biosolids [sewage sludge] sold or given away in a bag or other container shall not be land applied [to the land] if the concentration of any metal in the biosolids [sewage sludge] exceeds the ceiling concentration for the metal in Table 1 of subsection (b) of this section.

(2) If the bulk biosolids are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site, either:
(A) the cumulative loading rate for each metal shall not exceed the cumulative metal loading rate for the metal in Table 2 of subsection (b) of this section; or

(B) the concentration of each metal in the biosolids [sewage sludge] shall not exceed the concentration for the metal in Table 3 of subsection (b) of this section.

(3) If bulk biosolids are [sewage sludge is] applied to a lawn or a home garden, the concentration of each metal in the biosolids [sewage sludge] shall not exceed the concentration for the metal in Table 3 of subsection (b) of this section.

(4) If biosolids are [sewage sludge is] sold or given away in a bag or other container for land application [to the land], either:

(A) the concentration of each metal in the biosolids [sewage sludge] shall not exceed the concentration for the metal in Table 3 in subsection (b) of this section; or

(B) the product of the concentration of [the] each metal [pollutant] in the biosolids [sewage sludge] and the annual whole [sludge] application rate for the biosolids [sewage sludge] shall not cause the annual metal loading rate for the metal in
Table 4 of subsection (b) of this section to be exceeded. The procedure used to determine the annual whole [sludge] application rate is presented in §312.49 [§312. 49] of this title (relating to [Appendix A-] Procedure to Determine the Annual Whole [Sludge] Application Rate for Biosolids and Domestic Septage [a Sewage Sludge]).

(b) Metal concentrations and loading rates--biosolids [sewage sludge].

(1) Ceiling concentrations.

**Figure: 30 TAC §312.43(b)(1)**

[Figure: 30 TAC §312.43(b)(1)]

**TABLE 1 - METAL CEILING CONCENTRATIONS - LAND APPLICATION**

<table>
<thead>
<tr>
<th>Metal</th>
<th>Concentration (Milligrams per kilogram)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>75</td>
</tr>
<tr>
<td>Cadmium</td>
<td>85</td>
</tr>
<tr>
<td>Chromium</td>
<td>3,000</td>
</tr>
<tr>
<td>Copper</td>
<td>4,300</td>
</tr>
<tr>
<td>Lead</td>
<td>840</td>
</tr>
<tr>
<td>Mercury</td>
<td>57</td>
</tr>
</tbody>
</table>
Table 2 - CUMULATIVE METAL LOADING RATE - LAND APPLICATION [Metal LOADING Rate]

<table>
<thead>
<tr>
<th>Metal</th>
<th>[Cumulative Metal Loading]</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cumulative Loading</td>
<td>Cumulative</td>
<td>Cumulative</td>
</tr>
<tr>
<td></td>
<td>(kilograms per hectare)*</td>
<td>Loading</td>
<td>Loading</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(pounds per</td>
<td>(pounds per</td>
</tr>
<tr>
<td></td>
<td></td>
<td>acre)*</td>
<td>acre)*</td>
</tr>
<tr>
<td>Arsenic</td>
<td>41</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Cadmium</td>
<td>39</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
Chromium & 3,000 & 2,677 \\
Copper & 1,500 & 1,339 \\
Lead & 300 & 268 \\
Mercury & 17 & 15 \\
Molybdenum & Monitor & Monitor \\
Nickel & 420 & 375 \\
Selenium & 100 & 89 \\
Zinc & 2,800 & 2,500 \\

* Dry weight basis

(3) Metal concentrations.

Figure: 30 TAC §312.43(b)(3)

<table>
<thead>
<tr>
<th>Metal</th>
<th>Concentration (Milligrams per kilogram)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>41</td>
</tr>
<tr>
<td>Cadmium</td>
<td>39</td>
</tr>
</tbody>
</table>
Chromium  
Copper  
Lead  
Mercury  
Molybdenum  
Nickel  
Selenium  
Zinc  

<table>
<thead>
<tr>
<th>Metal</th>
<th>Annual Metal Loading Rate (pounds per acre)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>2.0</td>
</tr>
</tbody>
</table>

* Dry weight basis


**Figure: 30 TAC §312.43(b)(4)**

Table 4 - ANNUAL METAL LOADING RATES - LAND APPLICATION
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadmium</td>
<td>1.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Chromium</td>
<td>150.00</td>
<td>134.0</td>
</tr>
<tr>
<td>Copper</td>
<td>75.0</td>
<td>67.0</td>
</tr>
<tr>
<td>Lead</td>
<td>15.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.85</td>
<td>0.76</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>Monitor</td>
<td>Monitor</td>
</tr>
<tr>
<td>Nickel</td>
<td>21.0</td>
<td>18.7</td>
</tr>
<tr>
<td>Selenium</td>
<td>5.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Zinc</td>
<td>140.0</td>
<td>125.0</td>
</tr>
</tbody>
</table>

* Dry weight basis per ** Per 365-day period

[(c) Domestic Septage. The annual application rate for domestic septage applied to agricultural land, forest, or a reclamation site shall be equal to or less than the annual application rate calculated using equation 1. AAR = N / 0.0026, where AAR = Annual application rate in gallons per acre per 365-day period; N = Amount of nitrogen in pounds per acre per 365-day period needed by the crop or vegetation grown on the land.]

§312.44. Management Practices.

(a) Land application of bulk biosolids and/or domestic septage [sewage sludge] must not cause or contribute to the harm of a threatened or endangered species of
plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.

(b) Bulk biosolids and/or domestic septage [sewage sludge] must not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk biosolids and/or domestic septage [sewage sludge] enters a wetland or other water in the state, except as provided in a permit issued under Chapter 305 of this title (relating to Consolidated Permits) or federal Clean Water Act, §404.

(c) When bulk biosolids [sewage sludge] that do [does] not meet Class A pathogen requirements or domestic septage is land applied to agricultural land, forest, or a reclamation site, buffer zones listed under paragraph (1)(A) and (B) and paragraph (2)(A) – (C), (E) and (F) of this subsection must be established at the time of issuance of a permit or registration and maintained at all times for each land application unit [area] as noted in this section unless otherwise specified by the commission. In addition, the buffer zone listed under paragraph (2)(D) of this subsection must be established at the time of issuance of a permit or registration for each land application unit unless otherwise specified by the commission. The buffer zone listed under paragraph (2)(D) of this subsection shall be re-evaluated and maintained as needed, upon renewal or major amendment of a permit or registration.
(1) Surface water:

   (A) 200-foot buffer zone, if the biosolids and/or domestic septage are not incorporated; for land application units [sites] located in a major sole-source impairment zone this buffer zone must maintain a vegetative cover; or

   (B) 33-foot vegetative buffer zone, if the biosolids and/or domestic septage are incorporated.

(2) Other buffer zones:

   (A) 150 feet, private water supply well;

   (B) 500 feet, public water supply well, intake, spring or similar source, public water supply treatment plant, or public water supply elevated or ground storage tank;

   (C) 200 feet, solution channel, sinkhole, or other conduit to groundwater;

   (D) 750 feet, established school, institution, business, or occupied residential structure;
(E) 50 feet, public right-of-way and property boundaries; and

(F) 10 feet, irrigation conveyance canal.

(d) Any of the buffers established in subsection (c)(2)(D) and (E) of this section may be reduced or eliminated if an agreement to that effect is signed by the owners of the established school, institution, business, occupied residential structure, or adjacent property and this documentation is provided to the executive director prior to issuance of a permit or registration. Reductions or elimination of buffer zones in an existing permit or registration by agreement of the affected landowner will be considered a minor amendment of the permit or registration.

(e) Bulk biosolids and/or domestic septage [sewage sludge] must be applied to agricultural land, forest, or a public contact site at an annual [a] whole [sludge] application rate that is equal to or less than the agronomic rate for the agricultural land, forest, or public contact site on which the bulk biosolids and/or domestic septage are [sewage sludge is] applied.

(f) Bulk biosolids and/or domestic septage [sewage sludge] must be applied to a reclamation site at an annual [a] whole application rate that is equal to or less than the agronomic rate for the reclamation site on which the bulk biosolids and/or domestic
septage are sewage sludge is applied, unless otherwise specified by the executive
director or commission. On a case-by-case basis, an annual whole sludge
application rate may exceed the agronomic rate for a specific time period.

(g) Groundwater protection measures.

(1) A seasonal high groundwater table must be not less than three feet
below the treatment zone for soils with moderate or slower permeability (less than two
inches per hour).

(2) A seasonal high groundwater table must be not less than four feet
below the treatment zone for soils with moderately rapid or rapid permeability
(greater than two inches per hour and less than 20 inches per hour).

(3) Seasonal generally refers to a groundwater table that may be perched
on a less permeable soil or geologic unit and fluctuates with seasonal climatic variation
or that occurs in a soil or geologic unit as a variation in saturation due to seasonal
climatic conditions and is identified as such in a published soil survey report or similar
document.

(4) Application of biosolids and/or domestic septage sludge to land
having soils with greater permeability and with higher groundwater tables will be
considered on a case-by-case basis, after consideration of soil pH, metal loadings onto the soil, soil buffering capacity, or other protective measures to prevent groundwater contamination.

(h) Biosolids and/or domestic septage [Sludge] must be land applied by a method and under conditions that prevent runoff [of sewage sludge] beyond the land application unit [active application area] and protect the quality of the surface water and the soils in the unsaturated zone.

(1) Biosolids and/or domestic septage [Sludge] must be land applied uniformly over the surface of the land.

(2) Biosolids and/or domestic septage [sludge] may not be land applied to areas where permeable surface soils are less than two feet thick. The executive director will consider sites with thinner permeable surface soils, on a case-by-case basis.

(3) Biosolids and/or domestic septage [Sewage sludge] may not be land applied during [rainstorms] any time when precipitation occurs, [or] during periods in which surface soils are water-saturated, or [and] when pooling of water is evident on the land application unit [site]. The operator of a [TCEQ permitted] Class B land application unit, a domestic septage land application unit, or a bulk biosolids land application unit [sewage sludge site] that is subject to the notification requirements in
§312.4(b) of this title (relating to Required Authorizations or Notifications) [who land applies sewage sludge on agricultural land] shall submit an Adverse Weather and Alternative Plan. This plan shall detail procedures to address times when the biosolids and/or domestic septage [sewage sludge] cannot be applied to the land application unit [site] due to adverse weather or other conditions such as wind, precipitation, field preparation delays, and access road limitations.

(4) Biosolids and/or domestic septage [Sludge] may not be applied to areas having topographical slopes in excess of 8.0%. On a case-by-case basis, the executive director will consider sites with steeper slopes when runoff controls are proposed and utilized, incorporation of biosolids and/or domestic septage [sewage sludge] into the soil occurs, or for certain reclamation projects.

(5) Where runoff of biosolids and/or domestic septage [sludge] from the land application unit [active application area] is evident, the operator shall cease further land [sludge] application until the condition is corrected.

(6) Biosolids and/or domestic septage [Sewage sludge] may not be land applied [under provisions of this section on land] within a designated floodway.

(i) Either a label must be affixed to the bag or other container in which biosolids are [sewage sludge is] sold or given away for land application [to the land] or an
information sheet must be provided to the person who receives biosolids [sewage sludge] sold or given away in another container for land application [to the land]. The label or information sheet must contain the following information:

(1) the name and address of the person who prepared the biosolids [sewage sludge for sale or given away in a bag or other container for application to the land];

(2) a statement that prohibits the land application of the biosolids [sewage sludge to the land] except in accordance with the instructions on the label or information sheet; and

(3) the annual whole [sludge] application rate for the biosolids [sewage sludge] that do [does] not cause the annual metal loading rates in Table 4 of §312.43(b)(4) of this title (relating to Metal Limits) to be exceeded.

(j) Nuisance controls.

(1) A land application unit [site] location must be selected and the site operated in a manner to prevent public health nuisances.
(2) **Debris** [Sewage sludge debris] must be prevented from blowing or running off site boundaries or into surface waters.

(3) To prevent nuisance conditions from occurring, the operator shall:

(A) minimize dust migration from the site and access roadways;

(B) minimize offensive odors through incorporation of **biosolids** and/or domestic septage [sewage sludge] into the soil or by taking some other type of corrective action; and

(C) develop and implement best management practices (BMPs) to minimize off-site tracking of **biosolids and/or domestic septage** [sewage sludge] and sediment during the transport of **biosolids and/or domestic septage** [sewage sludge material] to and from the land application unit [site] or storage area; and to include at a minimum, removing tracked material, to the extent practicable, by the end of each day of operation at the site and either returning it to the site or otherwise disposing of it properly. The documented BMPs shall be retained by the operator and made readily available for review by a TCEQ representative.

(4) Odor Control. Pursuant to the authority vested in the commission or executive director in §312.6 of this title (relating to Additional or More Stringent
Requirements), a person who prepares biosolids and/or domestic septage [sewage sludge] or land applies biosolids and/or domestic septage [sewage sludge] on agricultural land may be subject to an Odor Control Plan on a case-by-case basis.

(k) A permit or registration must specify the soil testing requirements for each land application unit [area].

(1) The testing frequency must consider [take into account] common agricultural methods of determining [cover] crop nutrient needs, soil pH, phytotoxicity, and concentrations of metals regulated by this chapter.

(2) No authorization may require soil testing of metals regulated by this chapter, at a frequency greater than once per five years or prior to submittal of a renewal application for a land application unit [beneficial use site]. Soil testing for metals regulated by this chapter may not be required for portions of the authorized site where biosolids and/or domestic septage have [sewage sludge has] not been applied since the last soil metals testing was performed.

(3) Paragraph (2) of this subsection does not apply if the executive director becomes aware of circumstances warranting increased monitoring of metals regulated by this chapter, [in order] to address sites where metal loading into the soil is a threat to human health or environmental quality.
(l) An operator of a Class AB or Class B land application unit [sewage sludge site] shall post a sign that is visible from a publicly accessible road or sidewalk that is adjacent to the premises on which the land application unit is located stating that a biosolids [sewage sludge beneficial] land application unit [site] is located on the premises. The sign shall be posted three days prior to and 14 days after the commencement of land application of biosolids [sewage sludge] and shall include the operator name, telephone number, the classification of biosolids [sewage sludge] and the TCEQ authorization number. In the event of reasonably unforeseen circumstances such as weather conditions or equipment failure that necessitate a change in a planned land application unit [site], the required sign may be posted on the day on which biosolids [sewage sludge] land application commences. If signs are posted less than three days prior to land application, records shall be maintained documenting the unforeseeable circumstance that necessitated the change in a planned land application unit [site]. Such records shall be retained by the operator and be readily available for review by a TCEQ representative. [Records of any deviation of the posting requirements listed in this subsection and associated reasons shall be retained by the operator and be readily available for review by a TCEQ representative.]

(m) All vehicles and equipment used for the transport of bulk biosolids and/or domestic septage [Class A, Class AB or Class B sewage sludge] for land application or disposal shall be constructed, operated, and maintained to prevent the loss of liquid or
solid materials during transport. An operator of a [Class A, Class AB or Class B] bulk biosolids land application unit [sewage sludge site] may not accept bulk biosolids [sewage sludge], unless the biosolids [sewage sludge] is transported to the land application unit in a covered container with the covering firmly secured at the front and back.

§312.45. Operational Standards–Pathogens and Vector Attraction.

(a) Pathogens.

(1) The Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title (relating to Pathogen Reduction) or Class B biosolids [sewage sludge] pathogen requirements in §312.82(b) of this title shall be met if bulk biosolids are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site.

(2) The Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title shall be met if bulk biosolids are [sewage sludge is] applied to a lawn or a home garden.
(3) The Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title shall be met if biosolids are [sewage sludge is] sold or given away in a bag or other container for land application [to the land].

(4) The requirements in §312.82(c) of this title shall be met if domestic septage is applied to agricultural land, forest, or a reclamation site.

(b) Vector attraction reduction.

(1) One of the vector attraction reduction requirements in §312.83(b)(1) - (10) of this title (relating to Vector Attraction Reduction) shall be met if bulk biosolids are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site.

(2) One of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title shall be met if bulk biosolids are [sewage sludge is] applied to a lawn or a home garden.

(3) One of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title shall be met if biosolids are [sewage sludge is] sold or given away in a bag or other container for land application [to the land].
(4) The vector attraction reduction requirements in §312.83(b)(12) of this title shall be met if domestic septage is applied to agricultural land, forest, or a public contact site.

§312.46. Frequency of Monitoring.

(a) Biosolids [Sewage sludge (other than domestic septage)].

(1) The frequency of monitoring for the metals listed in §312.43(b)(1) - (4) of this title (relating to Metal Limits); the pathogen density requirements in either §312.82(a) or (b)(1)(C) and (b)(2) of this title (relating to Pathogen Reduction); and vector attraction reduction requirements in §312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction) are defined in Table 5.

Figure: 30 TAC §312.46(a)(1)

Table 5 - Frequency of Monitoring - Land Application

<table>
<thead>
<tr>
<th>Amount [of sewage sludge] * (metric tons per 365-day period)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to less than 290</td>
<td>once per year</td>
</tr>
<tr>
<td>290 to less than 1,500</td>
<td>once per quarter</td>
</tr>
</tbody>
</table>
1,500 to less than 15,000 | once per 60 days
15,000 or greater | once per month

* Either the amount of bulk biosolids land applied [sewage sludge applied to the land] or the amount of biosolids [sewage sludge] received by a person who prepares the biosolids [sewage sludge] for sale or give away in a bag or other container for land application [to the land] - dry weight basis.

(2) After the biosolids have [sewage sludge has] been monitored for two years at the frequency shown in paragraph (1) of this subsection (Table 5), the executive director may reduce the frequency of monitoring for metal [pollutant] concentrations and for the pathogen density requirements, but in no case shall the frequency of monitoring be less than once per year when biosolids are land applied [sewage sludge is applied to the land]. A reduction in monitoring will be allowed after agency review of a significant data set of sample results and where the city or cities generating the biosolids [sewage sludge] have in place a satisfactory and enforceable pretreatment program.

(3) After the biosolids have [sewage sludge has] been monitored for two years at the frequency shown in paragraph (1) of this subsection (Table 5), the executive director may increase the frequency of monitoring for metal [pollutant] concentrations and for the pathogen density requirements. An increase in monitoring will be required after agency review of a significant data set of sample results and
where high metal pollutant or pathogen values are present in biosolids that are
sewage sludge] generated.

(b) Domestic septage applied to agricultural land, forest, or a reclamation site
shall be monitored for the pathogen reduction requirements in §312.82(c) of this title
[relating to Pathogen Reduction] and the vector attraction reduction requirements in
§312.83(b)(12) of this title [relating to Vector Attraction Reduction].

§312.47. Recordkeeping [Record Keeping].

(a) Biosolids [Sewage sludge].

(1) The person who prepares the biosolids sewage sludge] in
§312.41(b)(1) or (e) of this title (relating to Applicability) shall develop the following
information and shall retain the information for five years:

(A) the concentration of each metal listed in Table 3 of
§312.43(b)(3) of this title (relating to Metal Limits) in the biosolids sewage sludge;

(B) the following certification statement: "I certify, under penalty of
law, that the Class A (or insert Class AB) biosolids sewage sludge] pathogen
requirements in 30 TAC §312.82(a) and the vector attraction reduction requirement in
(insert one of the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - (8)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

(C) a description of how the Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title (relating to Pathogen Reduction) are met; and

(D) a description of how one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction) is met.

(2) The person who derives the material in §312.41(c)(1) or (f) of this title shall develop the following information and shall retain the information for five years:

(A) the concentration of each metal listed in Table 3 of §312.43(b)(3) of this title in the material;
(B) the following certification statement: "I certify, under penalty of law, that the Class A (or insert Class AB) biosolids [sewage sludge] pathogen requirements in 30 TAC §312.82(a) and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - (8)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and the vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment; ";

(C) a description of how the Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title are met; and

(D) a description of how one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title is met.

(3) If the metal concentrations in Table 3 of §312.43(b)(3) of this title are not exceeded, the Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title, and the vector attraction reduction requirements in either §312.83(b)(9) or (10) of this title are met when bulk biosolids
are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site:

(A) The person who prepares the bulk biosolids [sewage sludge] shall develop the following information and shall retain the information for five years:

(i) the concentration of each metal listed in Table 3 of §312.43(b)(3) of this title in the bulk biosolids [sewage sludge];

(ii) the following certification statement: "I certify, under penalty of law, that the pathogen requirements in 30 TAC §312.82(a) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."; and

(iii) a description of how the pathogen requirements in §312.82(a) of this title are met.

(B) The person who applies the bulk biosolids [sewage sludge] shall develop the following information and shall retain the information for five years:
(i) the following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.44 and the vector attraction reduction requirement in (insert either 30 TAC §312.83(b)(9) or (10)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

(ii) a description of how the management practices in §312.44 of this title (relating to Management Practices) are met for each site on which bulk biosolids are [sewage sludge is] applied; and

(iii) a description of how the vector attraction reduction requirements in either §312.83(b)(9) or (10) of this title are met for each site on which bulk biosolids are [sewage sludge is] applied.

(4) If the metal concentrations in Table 3 of §312.43(b)(3) of this title are not exceeded and the Class B pathogen requirements in §312.82(b) of this title are met when bulk biosolids are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site:
(A) The person who prepares the bulk biosolids [sewage sludge] shall develop the following information and shall retain the information for five years:

(i) the concentration of each metal listed in Table 3 of §312.43(b)(3) of this title in the bulk biosolids [sewage sludge];

(ii) the following certification statement: "I certify under, penalty of law, that the Class B biosolids [sewage sludge] pathogen requirements in 30 TAC §312.82(b) and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - (8) if one of those requirements is met) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment;"

(iii) a description of how the Class B biosolids [sewage sludge] pathogen requirements in §312.82(b) of this title are met; and

(iv) when one of the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title is met, a description of how the vector attraction reduction requirement is met.
(B) The person who applies the bulk biosolids [sewage sludge] shall develop the following information and shall retain the information for five years:

(i) the following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.44, the site restrictions in 30 TAC §312.82(b)(3), and the vector attraction reduction requirements in (insert either 30 TAC §312.83(b)(9) or (10), if one of those requirements is met) have been met for each site on which bulk biosolids are [sewage sludge is] applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices and site restrictions (and the vector attraction reduction requirements if applicable) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment;"

(ii) a description of how the management practices in §312.44 of this title are met for each site on which bulk biosolids are [sewage sludge is] applied;
(iii) a description of how the site restrictions in §312.82(b)(3) of this title are met for each site on which bulk biosolids are [sewage sludge is] applied; and

(iv) when the vector attraction reduction requirement in either §312.83(b)(9) or (10) of this title is met, a description of how the vector attraction reduction requirement is met.

(5) If the requirements in §312.43(a)(2)(A) of this title are met when bulk biosolids are [sewage sludge is] applied to agricultural land, forest, a public contact site, or a reclamation site:

(A) The person who prepares the bulk biosolids [sewage sludge] shall develop the following information and shall retain the information for five years:

(i) the concentration of each metal listed in Table 1 of §312.43(b)(1) of this title in the bulk biosolids [sewage sludge];

(ii) the following certification statement: "I certify, under penalty of law, that the pathogen requirements in (insert either 30 TAC §312.82(a) or (b)) and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - (8) if one of those
requirements is met) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

(iii) a description of how the pathogen requirements in either §312.82(a) or (b) of this title are met;

(iv) when one of the vector attraction requirements in §312.83(b)(1) - (8) of this title is met, a description of how the vector attraction requirement is met.

(B) The person who applies the bulk biosolids [sewage sludge] shall develop the following information, retain the information in clauses (i) - (vii) of this subparagraph indefinitely, and retain the information in clause (viii) - (xiii) of this subparagraph, for five years:

(i) the location, by either street address or latitude and longitude, of each site on which bulk biosolids are [sewage sludge is] applied;
(ii) the number of acres in each site on which bulk biosolids are applied;

(iii) the date and time bulk biosolids are applied to each site;

(iv) the cumulative amount of each metal (i.e., kilograms) listed in Table 2 of §312.43(b)(2) of this title in the bulk biosolids applied to each site, including the amount in §312.42(e) of this title (relating to General Requirements);

(v) the amount of biosolids (i.e., metric tons) applied to each site;

(vi) the following certification statement: "I certify, under penalty of law, that the requirements to obtain information in 30 TAC §312.42(e) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."
(vii) a description of how the requirements to obtain information in §312.42(e) of this title are met;

(viii) the following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.44 have been met for each site on which bulk biosolids are [sewage sludge is] applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment.";

(ix) a description of how the management practices in §312.44 of this title are met for each site on which bulk biosolids are land [sewage sludge is] applied;

(x) the following certification statement when the bulk biosolids [sewage sludge] meets the Class B pathogen requirements in 30 TAC §312.82(b) [of this title]: "I certify, under penalty of law, that the site restrictions in 30 TAC §312.82(b)(3) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that
qualified personnel properly gather and evaluate the information used to determine that the site restrictions have been met. I am aware that there are significant penalties for false certification including fine and imprisonment.;

(xi) a description of how the site restrictions in §312.82(b)(3) of this title are met for each site on which Class B bulk biosolids are land [sewage sludge is] applied;

(xii) the following certification statement when the vector attraction reduction requirement in either 30 TAC §312.83(b)(9) or (10) [of this title] is met: "I certify, under penalty of law, that the vector attraction reduction requirement in (insert either 30 TAC §312.83(b)(9) or (10)) has been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the vector attraction reduction requirement has been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."; and

(xiii) if the vector attraction reduction requirements in either §312.83(b)(9) or (10) of this title are met, a description of how the requirements are met.
(6) If the requirements in §312.43(a)(4)(B) of this title are met when biosolids are [sewage sludge is] sold or given away in a bag or other container for land application [to the land], the person who prepares the biosolids [sewage sludge that is sold or given away in a bag or other container] shall develop the following information and shall retain the information for five years:

(A) the annual whole [sludge] application rate for the biosolids [sewage sludge] that do [does] not cause the annual metal loading rates in Table 4 of §312.43(b)(4) of this title to be exceeded;

(B) the concentration of each metal listed in Table 4 of §312.43(b)(4) of this title in the biosolids [sewage sludge];

(C) the following certification statement: "I certify, under penalty of law, that the management practice in 30 TAC §312.44(e), the Class A (or insert Class AB) biosolids [sewage sludge] pathogen requirement in 30 TAC §312.82(a), and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 30 TAC §312.83(b)(1) - (8)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practice, pathogen requirements, and vector attraction reduction requirements have been met. I am aware
that there are significant penalties for false certification including the possibility of fine and imprisonment;

(D) a description of how the Class A or Class AB biosolids [sewage sludge] pathogen requirements in §312.82(a) of this title are met;

(E) a description of how one of the vector attraction requirements in §312.83(b)(1) - (8) of this title is met.

(7) The person who land applies Class B biosolids shall develop the following information and shall retain the information for five years:

(A) the dates of harvesting; and

(B) the amount harvested, excluding grazing.

(8) The requirements of this subsection must be readily available for review by commission staff or be submitted to the executive director upon request.

(b) Domestic septage. When domestic septage is applied to agricultural land, forest, or a reclamation site, the person who applies the domestic septage shall develop the following information and shall retain the information for five years and
must be readily available for review by commission staff or be submitted to the executive director upon request:

(1) the location, by either street address or latitude and longitude, of each site on which domestic septage is applied;

(2) the number of acres in each site on which domestic septage is applied;

(3) the date and time domestic septage is applied to each site;

(4) the nitrogen requirement for the crop or vegetation grown on each site during a 365-day period;

(5) the rate, in gallons per acre per 365-day period, at which domestic septage is applied to each site;

(6) The following certification statement: "I certify, under penalty of law, that the pathogen requirements in (insert either 30 TAC §312.82(c)(1) or (2)) and the vector attraction reduction requirements in (insert 30 TAC §312.83(b)(9), (10), or (12)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly
gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

(7) a description of how the pathogen requirements in either §312.82(c)(1) or (2) of this title are met;

(8) a description of how the vector attraction reduction requirements in §312.83(b)(9), (10), or (12) of this title are met; [.]

(9) the dates of harvesting; and

(10) the amount harvested, excluding grazing.

§312.48. Reporting.

Unless otherwise specified by the executive director [commission], permittees and registrants [sludge management facilities] shall submit the following information to the Enforcement Division, the Wastewater Permitting Section of the Water Quality Division, and the appropriate regional office:
(1) annually by September 30th of each year (reporting period September 1st of the previous year to August 31st of the current year):

(A) the information in §312.47 of this title (relating to Recordkeeping [Record Keeping]) for the applicable requirements;

(B) the information in §312.47(a)(5)(A)(i) - (iv) of this title if:

(i) the biosolids exceed [sewage sludge does not meet] the metal concentrations in §312.43(b)(3) of this title (relating to Metal Limits);

(ii) 90% or more of any of the cumulative metal loading rates in §312.43(b)(2) of this title is reached at a site; or

(iii) biosolids are [sewage sludge is] applied to a site after 90% of any of the cumulative metal loading rates is reached at the site; and

(C) for the Class B biosolids [sewage sludge beneficial] land application permittee [permit holder]:

(i) evidence that the permittee [permit holder] is complying with the nutrient management plan developed by a certified nutrient management
specialist in accordance with the United States Department of Agriculture Natural
Resource Conservation Service Practice Standard Code 590;

(ii) a completed Annual Biosolids Land Application [Sludge] Summary Report Form; and

(iii) proof of continuation of commercial liability insurance and environmental impairment insurance; and

(2) for the Class B biosolids permittee [sewage sludge beneficial land use permit holder], submit quarterly reports by the 15th day of the month following each quarter. Quarterly reports are due December 15th, March 15th, June 15th, and September 15th and must include:

(A) a Quarterly Biosolids Land Application [Sludge] Summary Report form; and

(B) a computer-generated quarterly report containing:

(i) the source, quality, and quantity of Class B biosolids land [sewage sludge] applied to the land application unit;
(ii) the location of the land application unit, either in terms of longitude and latitude or by physical address, including the county;

(iii) the dates of delivery of Class B biosolids [sewage sludge];

(iv) the dates of land application of Class B biosolids [sewage sludge];

(v) the cumulative amount of metals land applied to the land application unit [through the application of Class B sewage sludge];

(vi) crops grown at the land application unit [site]; and

(vii) the suggested agronomic application rate for the Class B biosolids [sewage sludge].

§312.49. [Appendix A–] Procedure to [To] Determine the Annual Whole [Sludge] Application Rate for Biosolids and Domestic Septage [a Sewage Sludge].

(a) [Section 312.43(a)(4)(B) of this title (relating to Metal Limits) requires that the product of the concentration for each metal listed in Table 4 of §312.43 of this title in
sewage sludge sold or given away in a bag or other container for application to the land and the annual whole sludge application rate (AWSAR) for the sewage sludge not cause the annual metal loading rate for the metal in Table 4 of §312.43(b)(4) of this title to be exceeded.] This subsection [appendix] contains the procedure used to determine the annual whole application rate (AWAR) [(AWSAR)] for a biosolids [sewage sludge] that does not cause the annual metal loading rates in Table 4 of §312.43(b)(4) of this title (relating to Metal Limits) to be exceeded. Determine the AWAR using the following procedure.

(1) The relationship between the annual metal loading rate (AMLR) for a metal and the annual whole sludge application rate (AWSAR) for a sewage sludge is shown in equation (1).

(1) Analyze a sample of the biosolids to determine the concentration for each of the metals listed in Table 4 of §312.43 of this title.

(2) Using the metal concentrations from paragraph (1) of this paragraph and the AMLRs from Table 4 of §312.43 of this title, calculate an AWAR for each metal using Equation B.1.

(3) The AWAR for the biosolids is the lowest AWAR calculated in paragraph (2) of this paragraph.
Figure: 30 TAC §312.49(a)(3)

Equation B.1

\[ \text{AWAR} = \frac{\text{AMLR}}{C \times 0.001} \]

Where:

AMLR = Annual metal loading rate in kilograms per hectare per 365-day period.
C = Metal concentration in milligrams per kilogram of total solids (dry weight basis).
AWAR [AWSAR] = Annual whole [sludge] application rate in metric tons per hectare per 365-day period (dry weight basis).
0.001 = A conversion factor.

[(2) To determine the AWSAR, equation (1) is rearranged into equation (2)]:

Figure: 30 TAC §312.49(2)

\[ \text{AWSAR} = \frac{[\text{AMLR}]}{[C \times 0.001]} \]
[(3) The procedure used to determine the AWSAR for a sewage sludge is presented in Appendix A.]

[Figure: 30 TAC §312.49(3)]

[Appendix A]

[PROCEDURE:]
[1. Analyze a sample of the sewage sludge to determine the concentration for each of the metals listed in Table 4 of §312.43 of this title (relating to Metal Limits) in the sewage sludge].
[2. Using the metal concentrations from Step 1 and the AMLRs from Table 4 of §312.43(b)(4) of this title (relating to Metal Limits), calculate an AWSAR for each metal using equation (2) above].
[3. The AWSAR for the sewage sludge is the lowest AWSAR calculated in Step 2.]

(b) Domestic Septage. The annual whole application rate for domestic septage applied to agricultural land, forest, or a reclamation site shall be equal to or less than the annual whole application rate calculated using Equation B.2.

Figure: 30 TAC §312.49(b)

Equation B.2

\[
AWAR = \frac{N}{0.0026}
\]

Where:
AWAR = Annual whole application rate in gallons per acre per 365-day period
\( N = \text{Amount of nitrogen in pounds per acre per 365-day period needed by the crop or vegetation grown on the land.} \)

§312.50. Storage and Staging of Biosolids and Domestic Septage [Sludge at Beneficial Use Sites].

(a) Except as provided in subsection (b) of this section, storage of biosolids and/or domestic septage [sludge] at a [beneficial] land application unit [site] must not exceed 90 days. Storage is allowed only when the following requirements are carried out.

(1) Written authorization must be obtained from the executive director prior to construction of the storage area.

(2) The storage area must be operated and maintained to prevent surface water runoff and to prevent a release to groundwater. Discharge of stormwater [storm water] or wastewater which has come into contact with biosolids and/or domestic septage [sewage sludge] is prohibited. The storage area shall be designed to collect such runoff. Any runoff collected during the storage of biosolids and/or domestic septage [sewage sludge] shall be disposed in a manner to prevent a release to groundwater.
(3) The storage area shall be designed, constructed, and operated in a manner which protects human [public] health and the environment. Biosolids and/or domestic septage shall be stored away from odor receptors in order to prevent off-site dust migration from the storage area and to prevent nuisance odors.

(4) The storage area must be lined to prevent a release to groundwater. Natural or artificial liners are required for leachate control. A natural liner or equivalent barrier of one foot of compacted clay with a permeability coefficient of 1 x $10^{-7}$ cm/sec or less must be provided. Various flexible synthetic membrane lining materials may be used in lieu of soil liners if prior written approval has been obtained from the executive director. The applicant [registrant] shall furnish certification by a licensed professional engineer or licensed professional geoscientist that the completed storage area lining meets the appropriate criteria described in this section prior to using the facilities. The certification shall be signed, sealed, and dated by a licensed professional engineer or licensed professional geoscientist.

(5) The request for the storage area [application] shall outline measures to be taken to minimize vectors and to avoid public health nuisances such as odors.

(6) The storage area shall be fenced, or other methods shall be used, if necessary to control access by humans or domestic livestock [animals].
(7) Berms or dikes shall be constructed to contain the waste without leakage.

(8) Liquid biosolids and/or domestic septage [sludge] must be stored in an enclosed vessel.

(9) Processing of biosolids and/or domestic septage [sludge] is prohibited unless a permit is obtained from the commission.

(10) In the event a person who prepares biosolids and/or domestic septage [sewage sludge] that is land applied [to the land] or who land applies biosolids and/or domestic septage [sewage sludge] to the land, is subject to an Odor Control Plan as described in §312.44(j)(4) of this title (relating to Management Practices), that person must comply with the terms of the applicable Odor Control Plan in order to store biosolids and/or domestic septage [sewage sludge] at a land application unit [beneficial use site].

(b) Up to an additional 90 days of storage will be allowed with the prior approval of the appropriate Texas Commission on Environmental Quality (TCEQ) regional office, for reasons associated with application area flooding, saturated soils, or frozen soils.
(c) Staging of biosolids and/or domestic septage [sewage sludge] on-site, prior to land application, is allowable without executive director approval. Staging of biosolids and/or domestic septage [sewage sludge] may only occur for a maximum of seven calendar days per each individual staging location within the [beneficial] land application unit [site]. Up to an additional 14 days of staging biosolids and/or domestic septage [sewage sludge] will be allowed with the prior approval of the appropriate TCEQ [Texas Commission on Environmental Quality] regional office, for reasons associated with application area flooding, saturated soils, frozen soils, or equipment failure. Biosolids and/or domestic septage cannot be moved to another staging area to restart the timeframe allowed for staging. Written records of the location of each staging area and timeframe in which biosolids and/or domestic septage were [sewage sludge was] staged shall be retained by the operator and be readily available for review by a TCEQ representative. The operator shall stage the biosolids and/or domestic septage [sewage sludge] away from odor receptors in order to prevent off-site dust migration from the staging area and to prevent nuisance odors.

[(1) prevent off-site dust migration from the staging area; and]

[(2) prevent nuisance odors.]
septage shall develop the following information and shall retain the information for five years:

(1) the date, volume, and type of material deposited at the storage facility or staging area;

(2) the date, volume, and type of material removed from the storage facility or staging area; and

(3) if the material was not land applied on-site, the permit or registration number, location, and operator of the facility where the material that was removed from the storage facility or staging area was deposited.
SUBCHAPTER C: SURFACE DISPOSAL

§§312.61 - 312.68

Statutory Authority

These amendments are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants into or adjacent to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives
the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.61. Applicability.

(a) This subchapter applies to any person who prepares sewage sludge and/or biosolids that are placed on a surface disposal site, to the owner/operator of a surface disposal site, to sewage sludge or biosolids placed on a surface disposal site, and to a surface disposal site.

(b) This subchapter does not apply to sewage sludge and/or biosolids stored on the land or to the land on which sewage sludge and/or biosolids is stored when the storage period is two years or less and the sewage sludge and/or biosolids is stored at a treatment works authorized for such storage.

(c) This subchapter does not apply to sewage sludge and/or biosolids at a treatment works authorized for such storage that remains on the land for longer than two years but less than five years when the person who prepares the sewage sludge or
biosolids demonstrates that the land on which the sewage sludge and/or biosolids remains is not an active disposal [sludge] unit or surface disposal site. The demonstration shall include the following information, which shall be reviewed and approved by the executive director and retained by the person who prepares the sewage sludge and/or biosolids for the period that the sewage sludge and/or biosolids remains on the land:

1. the name and address of the person who prepared the sewage sludge and/or biosolids;

2. the name and address of the person who either owns the land or leases the land;

3. the location of the land, by latitude and longitude, street address if available, and boundary shown on a 7 1/2-minute quadrangle United States Geological Survey map;

4. an explanation of why sewage sludge and/or biosolids needs to remain on the land for longer than two years prior to final use or disposal; and

5. the date by which the sewage sludge and/or biosolids will be used or disposed of. This date must clearly maintain a storage period of less than five years.
§312.62. General Requirements.

(a) No person shall place sewage sludge and/or biosolids on an active disposal [sludge] unit unless the requirements in this subchapter are met.

(b) An active disposal [sludge] unit shall not be located within 60 meters of a fault that has displacement in Holocene time, located in an unstable area, or located in a wetland, except as provided in a permit issued pursuant to federal Clean Water Act, §402 or §404 [of the CWA, shall close within one year from the effective date of this regulation].

(c) The owner/operator of an active disposal [sludge] unit shall submit a written "closure and post closure plan" to the executive director, for approval, at least 180 days prior to the date that the active disposal [sludge] unit closes. The plan shall describe how the [sludge] unit will be closed and, at a minimum, shall include:

(1) a discussion of how the leachate collection system will be operated and maintained for three years after the disposal [sludge] unit closes if the disposal [sludge] unit has a liner and leachate collection system;
(2) a description of the system used to monitor for methane gas in the air in any structures within the surface disposal site and in the air at the property line of the surface disposal site, as required in §312.64(j) of this title (relating to Management Practices); and

(3) a discussion of how public access to the surface disposal site will be restricted for a minimum of three years after the last [sludge] unit in the surface disposal site closes.

(4) The final cover system for monofills [aerial fills (monofills)] shall be composed of no less than two feet of soil. The first 18 inches or more of cover shall be of clayey soil, classification SC or CL as defined in the "Unified Soils Classification System" developed by the United States Army Corps of Engineers, compacted in layers of no more than six inches to minimize the potential for water infiltration. A CH soil may be used; however, this soil may experience excessive cracking and shall therefore be covered by a minimum of 12 inches of topsoil to retain moisture. Other types of soil may be used with prior written approval from the executive director. The final six inches of cover shall be of suitable topsoil that can sustain [is capable of sustaining] native plant growth and shall be seeded or sodded immediately following the application of the final cover in order to minimize erosion. Side slopes of the final cover for monofills [all above-ground disposal areas (mono-fills)] shall not exceed a 25% grade (four feet horizontal to one foot vertical). Side slopes for the final cover in
excess of 25% may be authorized by the executive director provided that controlled
drainage such as flumes, diversion terraces, spillways, or other acceptable methods are
incorporated into the final cover system design submitted to the executive director for
review and approval. The final cover for the topmost portion of a disposal unit [or
facility] shall have a gradient of not less than 2.0% and not greater than 6.0% [,] and
shall possess a sufficient minimum grade to preclude ponding of surface water when
total fill height and expected subsidence are taken into consideration.

(d) The owner/operator shall comply with the post-closure care maintenance
requirements for final cover, as detailed in paragraphs (1) and (2) of this subsection for
the duration of the post-closure period for these units or sites.

(1) For a minimum of the first three years after the completion of final
closure, the permittee shall retain the right of entry to and maintain all rights-of-way
of a closed surface disposal site in order to conduct periodic inspections of the closed
site. The owner/operator shall correct, as needed, erosion of cover material, lack of
vegetative growth, leachate or methane migration, [and] subsidence, or ponding of
water on the disposal unit or surface disposal site. If any of these problems occur after
the end of the three-year post closure maintenance period or persist for longer than
the first three years of post-closure care maintenance, the owner/operator shall be
responsible for any corrections until the executive director determines that all
problems have been adequately resolved. The executive director may reduce the post-
(2) Any monitoring programs (groundwater [ground-water] monitoring, resistivity surveys, methane monitoring, etc.) in effect during the life of the surface disposal site shall be continued during the post-closure care maintenance period.

(e) Following completion of the post-closure care maintenance period for each surface disposal site, the owner/operator shall submit to the executive director for review and approval a [documented] certification, signed by an independent licensed [registered] professional engineer, verifying that post-closure care maintenance has been completed in accordance with the approved post-closure plan. The submittal to the executive director shall include all applicable documentation necessary for the certification of completion of post-closure care maintenance. Once approved, this certification shall be retained by the owner/operator.

(f) Deed Recordation Notification.

(1) No person shall place sewage sludge and/or biosolids on an active disposal [sludge] unit prior to recording, in the deed records of the county or counties in which the disposal takes place, the following information:
(A) a metes and bounds description of the portion(s) of the tract of land on which disposal of sewage sludge and/or biosolids will take place;

(B) a detailed description of the sewage sludge and/or biosolids which is to be disposed of;

(C) all pertinent information related to the permit to dispose of sewage sludge and/or biosolids, including at least the permit number and issuing agency; and

(D) the name and permanent address of the person or persons operating the facility who can provide [where] more specific information on the waste [can be secured].

(2) Proof of recordation shall be provided to the executive director prior to issuance of [before the commission issues] a permit.

(g) The executive director [commission] shall require evidence of financial responsibility as it deems appropriate to assure the executive director [commission] that the responsible owner or operator has sufficient assets to properly operate the site and to provide proper closure and post-closure. This assurance for the proper operation of the site may be in the form of performance bonds, letters of credit from recognized financial institutions, trust funds, or insurance.
§312.63. Metal Limits (Other Than Domestic Septage).

(a) Except as provided in subsection (b) of this section, the concentration for each metal listed in Table 6 of this subsection in sewage sludge and/or biosolids placed on an active disposal [sludge] unit that does not have a liner and leachate collection system shall be equal to or less than concentration for the metal in Table 6 of this subsection.

Figure: 30 TAC §312.63(a)

[Figure: 30 TAC §312.63(a)]

<table>
<thead>
<tr>
<th>Metal</th>
<th>Concentration (milligrams per kilogram*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic</td>
<td>73</td>
</tr>
<tr>
<td>Chromium</td>
<td>600</td>
</tr>
<tr>
<td>Nickel</td>
<td>420</td>
</tr>
</tbody>
</table>

* (Dry weight basis)

(b) The concentration of each metal listed in Table 6 of subsection (a) of this section in sewage sludge and/or biosolids placed on an active disposal [sludge] unit
whose boundary is less than 150 meters from the property line of the surface disposal site shall not exceed the concentration determined using the following procedure.

(1) The shortest actual distance from the active disposal [sludge] unit boundary to the property line of the surface disposal site shall be determined.

(2) The concentration of each metal listed in Table 7 of this paragraph in the sewage sludge and/or biosolids shall not exceed the concentration in Table 7 of this paragraph that corresponds to the actual distance as described in paragraph (1) of this subsection.

**Figure: 30 TAC §312.63(b)(2)**

[Figure: 30 TAC §312.63(b)(2)]

**Table 7 - METAL [Metal] CONCENTRATIONS - SURFACE DISPOSAL**

<table>
<thead>
<tr>
<th>Unit boundary to property line distance (meters)</th>
<th>[Metal concentration]**</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Arsenic</strong> (mg/kg**)</td>
<td><strong>Chromium</strong> (mg/kg**)</td>
<td><strong>Nickel</strong> (mg/kg**)</td>
</tr>
<tr>
<td>0 to less than 25</td>
<td>30</td>
<td>200</td>
<td>210</td>
</tr>
<tr>
<td>25 to less than 50</td>
<td>34</td>
<td>220</td>
<td>240</td>
</tr>
<tr>
<td>50 to less than 75</td>
<td>39</td>
<td>260</td>
<td>270</td>
</tr>
<tr>
<td>75 to less than 100</td>
<td>46</td>
<td>300</td>
<td>320</td>
</tr>
</tbody>
</table>
§312.64. Management Practices.

(a) Sewage sludge and/or biosolids shall not be placed on an active disposal [sludge] unit if it is likely to adversely affect a threatened or endangered species listed under the Endangered Species Act, §4, or its designated critical habitat.

(b) An active disposal [sludge] unit shall not restrict the flow of the 100-year flood nor be located within the 100-year floodway.

(c) When a surface disposal site is located in a seismic impact zone, each disposal [sludge] unit in that site shall be designed to withstand the maximum recorded horizontal ground-level acceleration.

(d) An active disposal [sludge] unit shall be located 60 meters or more from a fault that has displacement in Holocene time, unless otherwise approved by the executive director or commission.
(e) An active disposal [sludge] unit shall not be located in an unstable area.

(f) An active disposal [sludge] unit shall not be located in a wetland except as provided in a permit issued under the federal Clean Water Act, §402 or §404.

(g) Runoff from an active disposal [sludge] unit shall be collected and disposed in accordance with discharge permit requirements and any other applicable requirements. The runoff collection system for an active disposal [sludge] unit shall have the capacity to handle runoff from a 25-year, 24-hour rainfall event.

(h) The leachate collection system for an active disposal [sludge] unit that has a liner and leachate collection system shall be operated and maintained during the period the disposal [sludge] unit is active and for three years after the disposal [sludge] unit closes.

(i) Leachate from an active disposal [sludge] unit that has a liner and leachate collection system shall be collected and disposed in accordance with the applicable requirements during the period the disposal [sludge] unit is active and for three years after the disposal [sludge] unit closes.

(j) When a cover is placed on an active disposal [sewage sludge] unit, the concentration of methane gas in air in any structure within the surface disposal site
shall not exceed 25% of the lower explosive limit for methane gas during the period that the disposal [sewage sludge] unit is active and the concentration of methane gas in air at the property line of the surface disposal site shall not exceed the lower explosive limit for methane gas during the period that the disposal [sludge] unit is active. When a final cover is placed on a disposal [sludge] unit at closure, the concentration of methane gas in air in any structure within the surface disposal site shall not exceed 25% of the lower explosive limit for methane gas for three years after the disposal [sludge] unit closes and the concentration of methane gas in air at the property line of the surface disposal site shall not exceed the lower explosive limit for methane gas for three years after the disposal [sludge] unit closes. On a case by case basis, the executive director may consider exclusion from these requirements.

(k) A food crop, a feed crop, or a fiber crop shall not be grown on an active disposal [sludge] unit, unless the owner/operator of the surface disposal site demonstrates to the executive director [commission] that through additional management practices, human [public] health and the environment are protected from any reasonably anticipated adverse effects of metals in sewage sludge and/or biosolids when crops are grown.

(l) Domestic livestock [Animals] shall not be grazed on an active disposal [sludge] unit, unless the owner/operator of the surface disposal site demonstrates to the executive director [commission] that through additional management practices,
human [public] health and the environment are protected from any reasonably anticipated adverse effects of metals in sewage sludge and/or biosolids when domestic livestock [animals] are grazed.

(m) Public access to a surface disposal site shall be restricted during the period that the surface disposal site contains an active disposal [sludge] unit and for a period of three years after the last active disposal [sludge] unit in the surface disposal site closes. The means of restricting access to a surface disposal site shall be effective with consideration of the location of the site and adjacent land use(s).

(1) The permit application shall include an explanation of the means for restricting access to a surface disposal site.

(2) The executive director shall include, as a condition of the proposed permit, specific requirements for the means of restricting access to a surface disposal site.

(n) Sewage sludge and/or biosolids placed on an active disposal [sludge] unit must not contaminate an aquifer. Results of a groundwater monitoring program developed by a licensed professional geoscientist or licensed professional engineer or a certification by a licensed professional geoscientist or licensed professional engineer shall be used to demonstrate that sewage sludge and/or biosolids placed on an active
disposal [sludge] unit does not contaminate an aquifer. The results or certification shall be signed, sealed, and dated by the licensed professional geoscientist or licensed professional engineer preparing the results or certification.

§312.65. Operational Standards–Pathogen and Vector Attraction.

(a) Pathogen reduction for biosolids and/or sewage [Sewage] sludge (other than domestic septage). The [Class A and Class AB sewage sludge] pathogen reduction requirements in §312.82(a) or (b)(1)(A) and (2) of this title (relating to Pathogen Reduction) [or the Class B sewage sludge pathogen reduction requirements in §312.82(b)(1)(A) and (2) of this title] shall be met when sewage sludge and/or biosolids are [is] placed on an active disposal [sludge] unit, unless the vector attraction reduction requirements in §312.83(b)(11) of this title (relating to Vector Attraction Reduction) are [is] met.

(b) Pathogen reduction for domestic [Domestic] septage. The pathogen reduction requirement in §312.82(c)(2) of this title shall be met when domestic septage is placed on an active disposal [sludge] unit.

(c) Vector attraction reduction for biosolids and/or sewage [Sewage] sludge (other than domestic septage). One of the alternatives for vector attraction reduction in
§312.83(b)(1) - (11) of this title shall be met when sewage sludge and/or biosolids are [is] placed on an active disposal [sludge] unit.

(d) Vector attraction reduction for domestic [. Domestic] septage. The vector attraction reduction requirement in §312.83(b)(12) of this title shall be met when domestic septage is placed on an active disposal [sludge] unit.

§312.66. Frequency of Monitoring.

(a) Biosolids and/or sewage [Sewage] sludge (other than domestic septage).

(1) When required by this subchapter, the frequency of monitoring for the metals in Table 6 and Table 7 of §312.63(a) and (b) of this title (relating to Metal Limits), the pathogen density requirements in §312.82(a) and (b) of this title (relating to Pathogen Reduction) [and in §312.82(b) of this title (relating to Vector Attraction Reduction)], and the vector attraction reduction requirements in §312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction), for sewage sludge and/or biosolids placed on an active disposal [sludge] unit shall be the frequency in Table 8 of this paragraph.

Figure: 30 TAC §312.66(a)(1)

[Figure: 30 TAC §312.66(a)(1)]
TABLE 8 - FREQUENCY OF MONITORING - SURFACE DISPOSAL

<table>
<thead>
<tr>
<th>Amount [of sewage sludge] * (metric tons per 365-day period)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 0 but less than 290</td>
<td>once per year</td>
</tr>
<tr>
<td>Equal to or greater than 290 but less than 1,500</td>
<td>once per quarter (four times per year)</td>
</tr>
<tr>
<td>Equal to or greater than 1,500 but less than 15,000</td>
<td>once per 60 days (six times per year)</td>
</tr>
<tr>
<td>Equal to or greater than 15,000</td>
<td>once per month (12 times per year)</td>
</tr>
</tbody>
</table>

* Amount of sewage sludge and/or biosolids placed on an active disposal [sewage sludge] unit (dry weight basis).

(2) The executive director or commission may increase or decrease the frequency of monitoring required in paragraph (1) of this subsection after the sewage sludge and/or biosolids are [is] monitored for two years at the frequency in Table 8 in paragraph (1) of this subsection. The increase in frequency of monitoring should only increase to the next highest frequency for each two-year period and then may be lowered in the same manner. In no case shall the frequency of monitoring be less than the frequency required in Table 8 in paragraph (1) of this subsection if sewage sludge and/or biosolids are [is] placed on an active disposal [sludge] unit.
(b) If the vector attraction reduction requirements in §312.83(b)(12) of this title are met when domestic septage is placed on an active disposal [sewage sludge] unit, each individual container of domestic septage shall be monitored for compliance with those requirements.

(c) Air in structures within a surface disposal site and at the property line of the surface disposal site shall be monitored continuously for methane gas during the period the surface disposal site contains an active disposal [sludge] unit on which the sewage sludge and/or biosolids are [is] covered and for three years after a disposal [sludge] unit closes if a final cover is placed on the sewage sludge and/or biosolids.

§312.67. Recordkeeping [Record Keeping].

(a) Biosolids and/or Sewage [When sewage] sludge (other than domestic septage) [is placed on an active sludge unit].

(1) The person who prepares the sewage sludge and/or biosolids shall develop the following information and shall retain the information for five years.

(A) The concentration of each metal listed in Table 6 of §312.63(a) of this title (relating to Metal Limits) in the sewage sludge and/or biosolids [when the metal concentrations in Table 6 are met].
(B) The following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.64; the pathogen requirements in (insert the citation to the specific pathogen reduction requirements that are met from 30 TAC §312.82 [of this title (relating to Pathogen Reduction)]) and the vector attraction reduction requirements in (insert the citation to the specific vector attraction reduction requirements that are met from 30 TAC §312.83(b) [of this title (relating to Vector Attraction Reduction)]) when one of those requirements is met) have been met. This determination has been made under my direction and supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information used to determine that the (specific requirements for pathogen and vector attraction reduction (when appropriate)) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(C) A description of how the pathogen reduction requirements in §312.82(a) of this title (relating to Pathogen Reduction) are met when required [any of those requirements are met].

(D) A description of how one of the vector attraction reduction requirements in §312.83(b) of this title (relating to Vector Attraction Reduction) are met when required.
(2) The owner/operator of the surface disposal site shall develop the following information and shall retain that information for five years.

(A) The concentration of each metal listed in Table 7 of §312.63(b) of this title in the sewage sludge and/or biosolids [when the metal concentrations in Table 7 are met].

(B) The following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.64 and the vector attraction reduction requirements in (insert the citation to the specific requirements that are met from 30 TAC §312.83(b) [of this title (relating to Vector Attraction Reduction)]) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices (and specific requirements for vector attraction reduction (when appropriate)) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(C) A description of how the management practices in §312.64 of this title (relating to Management Practices) are met.
(D) A description of how one of the vector attraction reduction requirements in §312.83 of this title [(relating to Vector Attraction Reduction)] are met when required.

(b) Domestic septage. [When domestic septage is placed on an active sludge unit.]

(1) The person who places domestic septage on a surface disposal site shall develop the following information and shall retain the information for five years:

(A) The following certification statement: "I certify, under penalty of law, that the vector attraction reduction requirements in 30 TAC §312.83(b)(12) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(B) A description of how the vector attraction reduction requirements in §312.83(b)(12) of this title [(relating to Vector Attraction Reduction)]
are met. The record shall include the date and time of alkali addition, the pH after alkali addition, the time after 30 minutes of the alkali addition, the pH after 30 minutes.

(2) The owner/operator of the surface disposal site shall develop the following information and shall retain that information for five years. [:]

(A) The following certification statement: "I certify, under penalty of law, that the management practices in 30 TAC §312.64 and the vector attraction reduction requirements in (insert the citation to the specific vector attraction reduction requirements that are met from 30 TAC §312.83 [of this title]) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices (and vector attraction reduction requirements (when appropriate) have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

(B) A description of how the management practices in §312.64 of this title are met.
(C) A description of how one of the vector attraction reduction requirements in §312.83 of this title are met when required.

§312.68. Reporting.

All facilities regulated under this subchapter shall submit the information required in §312.67(a) of this title (relating to Recordkeeping [Record Keeping]) to the executive director [commission] by September 30th [1] each year (reporting period September 1st of the previous year to August 31st of the current year).
SUBCHAPTER D: PATHOGEN AND VECTOR ATTRACTION REDUCTION

§§312.81 - 312.83

Statutory Authority

These amendments are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants into or adjacent to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives
the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.81. Scope.

(a) This subchapter contains the pathogen reduction requirements that must be met for biosolids [a sewage sludge] to be classified either Class A, Class AB, or Class B [with respect to pathogen reduction].

(b) This subchapter contains the site restrictions for the land on which Class B biosolids, [a sewage sludge that is Class B] with respect to pathogens, are [is] either land applied for beneficial use or placed on an active disposal [sludge] unit.

(c) This subchapter contains the pathogen reduction requirements for domestic septage applied to agricultural land, forest, or a reclamation site for beneficial use and the pathogen reduction requirements for domestic septage placed on an active disposal [sludge] unit.
(d) This subchapter contains the site restrictions for the land on which domestic septage is applied for beneficial use or placed on an active disposal [sludge] unit.

(e) This subchapter contains the vector attraction reduction requirements for biosolids [sewage sludge] and domestic septage that are land applied for beneficial use or placed on an active disposal [sludge] unit.

§312.82. Pathogen Reduction.

(a) [Sewage sludge--] Class A and Class AB biosolids.

(1) Compliance requirements--Class A and Class AB.

(A) For biosolids [sewage sludge] to be classified as Class AB, with respect to pathogens, the requirements in subparagraphs (C) and (D) of this paragraph and the requirements of one of the alternatives listed in paragraph (2) of this subsection must be met.

(B) For biosolids [sewage sludge] to be classified as Class A, with respect to pathogens, the requirements in subparagraphs (C) and (D) of this paragraph and the requirements of one of the alternatives listed in paragraph (3) of this subsection must be met. Biosolids [Sewage sludge] that meet [meets] the requirements
of subparagraph (A) of this paragraph may be classified a Class A biosolids [sewage sludge] if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke an [that] approved variance if it is determined that the variance may potentially endanger human health or the environment [,] or create nuisance odor conditions.

(C) The requirements of the chosen alternative for pathogen reduction from paragraphs (2) and (3) of this subsection must be met prior to or at the same time as the vector attraction reduction requirements, except the requirements in §312.83(b)(6) - (8) of this title (relating to Vector Attraction Reduction).

(D) Either the density of fecal coliform in the biosolids [sewage sludge] must be less than 1,000 Most Probable Number per gram of total solids (dry weight basis) or the density of Salmonella (sp. bacteria) in the biosolids [sewage sludge] must be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids are [sewage sludge is] used or disposed of, at the time the biosolids are [sewage sludge is] prepared for sale or given away in a bag or other container for land application [to the land], or at the time the biosolids [sewage sludge] or material derived from biosolids are [sewage sludge is] prepared to meet the requirements in §312.41(b), (c), (e), or (f) of this title (relating to Applicability).
(2) Compliance alternatives--Class AB.

(A) Alternative 2. The temperature and pH of the biosolids [sewage sludge that is used or disposed of] must be maintained at specific values for specific periods of time.

(i) The pH of the biosolids [sewage sludge] must be raised to above 12 and must remain above 12 for 72 hours.

(ii) The temperature of the biosolids [sewage sludge] must be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the biosolids [sewage sludge] is above 12.

(iii) At the end of the 72-hour period during which the pH of the biosolids [sewage sludge] is above 12, the biosolids [sewage sludge] must be air dried to achieve a percent solids in the biosolids [sewage sludge] greater than 50%.

(B) Alternative 3. The biosolids [sewage sludge that is used or disposed of] must be analyzed prior to pathogen treatment to determine whether the biosolids [sewage sludge] contains enteric viruses and viable helminth ova.
(i) When the density of enteric viruses in the biosolids [sewage sludge] prior to pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis), the biosolids are [sewage sludge is] Class AB [A] with respect to enteric viruses until the next monitoring episode for the biosolids [sewage sludge].

(ii) When the density of enteric viruses in the biosolids [sewage sludge] prior to pathogen treatment is equal to or greater than one Plaque-forming Unit per four grams of total solids (dry weight basis), the biosolids are [sewage sludge is] Class AB [A] with respect to enteric viruses when the density of enteric viruses in the biosolids [sewage sludge] after pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the biosolids [sewage sludge] that meet [meets] the enteric virus density requirement are documented.

(iii) After the enteric virus reduction in clause (ii) of this subparagraph is demonstrated for the pathogen treatment process, the biosolids continue [sewage sludge continues] to be Class AB [A] with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in clause (ii) of this subparagraph.
(iv) When the density of viable helminth ova in the biosolids [sewage sludge] prior to pathogen treatment is less than one per four grams of total solids (dry weight basis), the biosolids are [sewage sludge is] Class AB [A] with respect to viable helminth ova until the next monitoring episode for the biosolids [sewage sludge].

(v) When the density of viable helminth ova in the biosolids [sewage sludge] prior to pathogen treatment is equal to or greater than one per four grams of total solids (dry weight basis), the biosolids are [sewage sludge is] Class AB [A] with respect to viable helminth ova when the density of viable helminth ova in the biosolids [sewage sludge] after pathogen treatment is less than one per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the biosolids [sewage sludge] that meet [meets] the viable helminth ova density requirement are documented.

(vi) After the viable helminth ova reduction in clause (v) of this subparagraph is demonstrated for the pathogen treatment process, the biosolids continue [sewage sludge continues] to be Class AB [A] with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are
consistent with the values or ranges of values documented in clause (v) of this subparagraph.

(C) Alternative 4. The biosolids [sewage sludge that is used or disposed of] must be analyzed prior to pathogen treatment to determine whether the biosolids contain [sewage sludge contains] enteric viruses and viable helminth ova.

(i) The density of enteric viruses in the biosolids [sewage sludge] must be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the biosolids are [sewage sludge is] used or disposed of, at the time the biosolids are [sewage sludge is] prepared for sale or given away in a bag or other container for land application [to the land], or at the time the biosolids [sewage sludge] or material derived from biosolids are [sewage sludge is] prepared to meet the requirements in §312.41(b), (c), (e), or (f) of this title.

(ii) The density of viable helminth ova in the biosolids [sewage sludge] must be less than one per four grams of total solids (dry weight basis) at the time the biosolids are [sewage sludge is] used or disposed of, at the time the biosolids are [sewage sludge is] prepared for sale or given away in a bag or other container for land application [to the land], or at the time the biosolids [sewage sludge] or material derived from biosolids are [sewage sludge is] prepared to meet the requirements in §312.41(b), (c), (e), or (f) of this title.
(3) Compliance alternatives--Class A.

(A) Alternative 1. The temperature of the biosolids [sewage sludge that is used or disposed of] must be maintained at a specific [specified] value for a specific period of time.

(i) When the percent solids of the biosolids are [sewage sludge is] 7.0% or higher, the temperature of the biosolids [sewage sludge] must be 50 degrees Celsius or higher; the time period must be 20 minutes or longer; and the temperature and time period must be determined using Equation D.1 of [the equation in] this clause, except when small particles of biosolids [sewage sludge] are heated by either warmed gases or an immiscible liquid.

Figure: 30 TAC §312.82(a)(3)(A)(i)

[Figure: 30 TAC §312.82(a)(3)(A)(i)]

Equation D.1

\[
D = \frac{131,700,000}{10^{0.1400t}}
\]

\[
[D > \frac{131,700,000}{10^{0.1400t}}]
\]
Where:
\[ D = \text{time in days} \]
\[ t = \text{temperature in degrees Celsius} \]

(ii) When the percent solids of the biosolids are 7.0% or higher and small particles of biosolids are heated by either warmed gases or an immiscible liquid, the temperature of the biosolids must be 50 degrees Celsius or higher, the time period must be 15 seconds or longer, and the temperature and time period must be determined using Equation D.1 in clause (i) of this subparagraph.

(iii) When the percent solids of the biosolids is less than 7.0% and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period must be determined using the Equation D.1 [equation] in clause (i) of this subparagraph.

(iv) When the percent solids of the biosolids is less than 7.0%; the temperature of the biosolids is 50 degrees Celsius or higher; and the time period is 30 minutes or longer, the temperature and time period must be determined using Equation D.2 [the equation] in this clause.

**Figure: 30 TAC §312.82(a)(3)(A)(iv)**

[Figure: 30 TAC §312.82(a)(3)(A)(iv)]

**Equation D.2**
\[ D = \frac{50,070,000}{10^{0.1400t}} \]

\[ [D > \frac{50,070,000}{10^{0.1400t}}] \]

Where:
\( D \) = time in days
\( t \) = temperature in degrees Celsius

(B) Alternative 5 (Processes to Further Reduce Pathogens (PFRP)).

**Biosolids** [Sewage sludge that is used or disposed of] must be treated in one of the PFRP described in 40 Code of Federal Regulations (CFR) Part 503, Appendix B.

(C) Alternative 6 (PFRP Equivalent). **Biosolids** [Sewage sludge that is used or disposed of] must be treated in a process that has been approved by the United States Environmental Protection Agency (EPA) as being equivalent to those in subparagraph (B) of this paragraph.

(b) [Sewage sludge--] Class B **Biosolids**.

(1) Compliance requirements--Class B.
(A) For biosolids [a sewage sludge] to be classified as Class B with respect to pathogens, the requirements in subparagraphs (B) and (C) of this paragraph must be met. As an alternative for biosolids [a sewage sludge] to be classified as Class B, the requirements of subparagraph (B) of this paragraph and paragraph (2) of this subsection must be met.

(B) The site restrictions in paragraph (3) of this subsection must be met when Class B biosolids, [sewage sludge that is classified as Class B] with respect to pathogens, are land applied [is applied to the land for beneficial use].

(C) A minimum of seven representative samples of the biosolids [sewage sludge] must be collected within 48 hours of the time that the biosolids are [sewage sludge is] used or disposed of during each monitoring episode for the biosolids [sewage sludge]. The geometric mean of the density of fecal coliform for the samples collected must be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony-forming Units per gram of total solids (dry weight basis).

(2) Processes to Significantly Reduce Pathogens (PSRP) compliance alternatives--Class B. Biosolids [Sewage sludge that is used or disposed of] must be treated in one of the PSRP described in 40 CFR Part 503, Appendix B, or must be
treated by an equivalent process approved by the EPA, so long as all of the following requirements are met by the biosolids generator [of the sewage sludge].

(A) Prior to use or disposal, all the biosolids [sewage sludge] must have been generated from a single location, except as provided in subparagraph (F) of this paragraph.

(B) An independent Texas licensed [registered] professional engineer must make a certification to the biosolids generator [of a sewage sludge] that the wastewater treatment facility generating the biosolids [sewage sludge] is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification must include a statement indicating that the design meets all the applicable standards specified in 40 CFR Part 503, Appendix B.

(C) Prior to any off-site transportation or on-site use or disposal of any biosolids [sewage sludge] generated at a wastewater treatment facility, the licensed [chief certified] operator of the wastewater treatment facility or other responsible official who manages the PSRP at the wastewater treatment facility for the permittee, shall certify that the biosolids [sewage sludge] underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable
processes and the minimum operational and recordkeeping requirements must be in accordance with established EPA final guidance.

(D) All certification records and operational records describing how the requirements of this paragraph were met must be kept by the generator for a minimum of three years and be available for inspection by executive director [commission] staff for review.

(E) In lieu of a generator obtaining a certification as specified in subparagraph (B) of this paragraph, the executive director will accept from the EPA a finding of equivalency to the defined PSRP.

(F) If the biosolids are [sewage sludge is] generated from a mixture of sources, resulting from a person who prepares biosolids [sewage sludge] from more than one wastewater treatment facility, the resulting derived product must meet one of the PSRP, and meet the certification, operation, and recordkeeping requirements of this paragraph.

(3) Site restrictions.

(A) Food crops with harvested parts totally above the land surface that touch the biosolids/soil mixture [sewage sludge/soil mixture] must not be
harvested from the land for at least 14 months after land application of biosolids.

(B) Food crops with harvested parts below the land surface must not be harvested for at least 20 months after land application of biosolids when the biosolids remain on the land surface for four months or longer prior to incorporation into the soil.

(C) Food crops with harvested parts below the land surface must not be harvested for at least 38 months after land application of biosolids when the biosolids remain on the land surface for less than four months prior to the incorporation into the soil.

(D) Food crops, feed crops, and fiber crops must not be harvested for at least 30 days after land application of biosolids.

(E) Domestic livestock must not be allowed to graze on the land for at least 30 days after land application of biosolids.

(F) Turf crops grown on land where biosolids are applied may not be harvested for at least one year after land application of biosolids.
[sewage sludge] when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

(G) Public access to land with a high potential for public exposure must be restricted for at least one year after land application of biosolids [sewage sludge].

(H) Public access to land with a low potential for public exposure must be restricted for at least 30 days after land application of the biosolids [sewage sludge].

(c) Domestic septage.

(1) The site restrictions in subsection (b)(3) of this section must be met if domestic septage is land applied to agricultural land, forest, or a reclamation site.

(2) The pH of domestic septage land applied to agricultural land, forest, or a reclamation site must be raised to 12 or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for a period of 30 minutes.

§312.83. Vector Attraction Reduction.
(a) Compliance requirements.

(1) One of the vector attraction reduction requirements in subsection (b)(1) - (10) of this section shall be met when bulk biosolids are land applied to agricultural land, forest, a public contact site, or a reclamation site.

(2) One of the vector attraction reduction requirements in subsection (b)(1) - (8) of this section shall be met when bulk biosolids are applied to a lawn or home garden, or are sold or given away in a bag or other container.

(3) One of the vector attraction reduction requirements in subsection (b)(1) - (11) of this section shall be met when biosolids are placed on an active disposal unit.

(4) One of the vector attraction reduction requirements in subsection (b)(9), (10), or (12) of this section shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

(5) One of the vector attraction reduction requirements in subsection (b)(9) - (12) of this section shall be met when domestic septage is placed on an active disposal unit.
(b) Compliance alternatives.

(1) The mass of volatile solids in the biosolids [sewage sludge] shall be reduced by a minimum of 38%.

(2) If an anaerobically digested biosolids [sewage sludge] cannot meet the 38% volatile solids reduction requirement in paragraph (1) of this subsection, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids [sewage sludge] anaerobically in a laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. If, at the end of the 40 days, the volatile solids in the biosolids [sewage sludge] at the beginning of that period is reduced by less than 17%, vector attraction reduction is achieved.

(3) If an aerobically digested biosolids [sewage sludge] cannot meet the 38% volatile solids reduction requirement in paragraph (1) of this subsection, vector attraction reduction can be demonstrated by digesting a portion of the previously digested biosolids [sewage sludge] that has a percent solids of 2.0% or less aerobically in a laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. If, at the end of the 30 days, the volatile solids in the biosolids [sewage sludge] at the
beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

(4) The specific oxygen uptake rate (SOUR) for biosolids [sewage sludge] treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.

(5) Biosolids [Sewage sludge] shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the biosolids [sewage sludge] shall be higher than 40 degrees Celsius and the average temperature of biosolids [sewage sludge] shall be higher than 45 degrees Celsius.

(6) The pH of biosolids [sewage sludge] shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours.

(7) The percent solids of biosolids [sewage sludge] that do [does] not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials.
(8) The percent solids of biosolids [sewage sludge] that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials.

(9) Biosolids [Sewage sludge] shall be injected below the land surface [of the land]. No significant amount of the biosolids [sewage sludge] shall be present on the land surface within one hour after the biosolids are [sewage sludge is] injected. If the biosolids [sewage sludge] that are [is] injected below the land surface are [of the land is] Class A or Class AB with respect to pathogens, as described in §312.82 of this title (relating to Pathogen Reduction), the biosolids [sewage sludge] shall be injected below the land surface within eight hours after the biosolids are [sewage sludge is] discharged from the pathogen treatment process.

(10) Biosolids [Sewage sludge] applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application or placement on the land. If the biosolids [sewage sludge] that are [is] incorporated into the soil are [is] Class A or Class AB with respect to pathogens, as described in §312.82 of this title, the biosolids [sewage sludge] shall be applied to or placed on the land within eight hours after the biosolids are [sewage sludge is] discharged from the pathogen treatment process.
(11) Biosolids [Sewage sludge] placed on an active disposal [sewage sludge] unit shall be covered with soil or other material at the end of each operating day.

(12) The pH of domestic septage shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for 30 minutes.
SUBCHAPTER F: LAND APPLICATION, STORAGE, AND DISPOSAL OF WATER

TREATMENT RESIDUALS [SLUDGE]

§§312.121 - 312.130

Statutory Authority

These amendments and new sections are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments and new sections are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants...
into or adjacent to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments and new sections implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.121. Purpose and Applicability [Scope and Standards].

(a) The purpose of this subchapter is to establish minimum requirements that define the acceptable management of water treatment residuals [sludge]. These requirements apply as specified in §312.2 of this title (relating to Applicability).

(b) Except as provided in subsection (c) of this section, the regulations contained in 40 CFR, Part 257 (including all appendices to Part 257), are adopted by reference as amended and adopted in the CFR through October 9, 1993. The definitions contained in 40 CFR, Part 257 supersede any definitions for the same terms found in §312.8 of this title (relating to General Definitions).

(c) The commission does not adopt the definition of land application unit as specified in 40 CFR, §257.2].
(b) [(d)] The following term, when used in this subchapter, shall have the following meaning, unless the context clearly indicates otherwise. Land application unit is an area where water treatment residuals are [sludge is] applied onto or incorporated into the soil surface for [treatment or] disposal, where the disposal occurs within five feet of the land surface [of the land].

[(e) The criteria and applicable definitions found in 40 CFR, Part 257 apply to disposal of water treatment sludge in a landfill waste pile, land application unit, or surface impoundment.]

(c) [(f)] When water treatment residuals are [sludge is] mixed with sewage sludge, biosolids, or domestic septage or when water treatment residuals are [sludge is] placed on land for disposal along with sewage sludge, biosolids, or domestic septage, it is subject to all applicable requirements of sewage sludge, biosolids, or domestic septage, as specified in this chapter.

§312.122. Registrations and Permits.

(a) A permit shall be required before any disposal of water treatment residuals [sludge] in a monofill [landfill]. The requirements for applications, permits, permit conditions, and actions by the commission shall be in accordance with Chapter 305 of
this title (relating to Consolidated Permits). Applications for permits will be processed in accordance with Chapter 281 of this title (relating to Applications Processing).

Disposal of water treatment residuals in a landfill is regulated by Chapter 330 of this title (relating to Municipal Solid Waste).

(b) Any person who disposes of water treatment residuals [sludge] in a land application unit, surface impoundment, or waste pile [in accordance with §312.121 of this title (relating to Purpose, Scope, and Standards)] shall apply for registration on a form approved by the executive director. [commission. A completed application must be submitted to the commission's Permitting Section of the Water Quality Division.] Before issuing a registration, the executive director will [may] review the application to determine whether the proposed activity meets the requirements of this subchapter [40 Code of Federal Regulations Part 257].

§312.123. General Requirements.

(a) No person shall land apply water treatment residuals except in accordance with the requirements in this subchapter.

(b) The person who land applies water treatment residuals shall obtain information needed to comply with the requirements in this subchapter.
(c) If a water treatment plant operator provides bulk water treatment residuals to a person who land applies the water treatment residuals, the water treatment plant operator shall provide the person who land applies the water treatment residuals notice and necessary information to comply with the requirements in this subchapter.

(d) If a water treatment plant operator provides water treatment residuals to a person who prepares the water treatment residuals for land application, the water treatment plant operator shall provide the person who prepares the water treatment residuals for land application notice and necessary information to comply with the requirements in this subchapter.

(e) The person who land applies water treatment residuals shall provide the owner or lease-holder of the land on which the water treatment residuals are land applied notice and necessary information to comply with the requirements in this subchapter.

§312.124. Metal Limits.

(a) Water treatment residuals shall not be land applied if the concentration of any metal in the water treatment residuals exceeds the ceiling concentration for the metals in Table 1 of §312.43(b)(1) of this title (relating to Metal Limits).
(b) The applicant shall determine the soil concentration of cadmium in accordance with §312.12(a)(1)(I) of this title (relating to Registrations) and demonstrate to the satisfaction of the executive director that the proposed cumulative cadmium loading will not result in a toxic condition or increase the toxicity of the existing soil.


(a) When water treatment residuals are land applied to agricultural land, forest, a public contact site, or a reclamation site for the production of food or feed crops, the requirements in either paragraph (1) or (2) of this subsection must be met.

(1) Production of any food crops.

(A) The pH of the residuals and soil mixture must be 6.5 or greater at the time of land application, except for water treatment residuals containing cadmium concentrations of 2 mg/kg (dry weight) or less.

(B) The annual cadmium loading rate (ACLR), which is the annual application of cadmium from water treatment residuals, must not exceed 0.5 kilograms per hectare (kg/ha).
(C) The cumulative application of cadmium from water treatment residuals must not exceed the levels in Table 9 of this subparagraph.

**Figure: 30 TAC §312.125(a)(1)(C)**

**TABLE 9 – MAXIMUM CUMULATIVE APPLICATION OF CADMIUM (in kg/ha)**

<table>
<thead>
<tr>
<th>Soil Cation Exchange Capacity (meq/100g)</th>
<th>Background soil pH &lt;= 6.5</th>
<th>Background soil pH &gt; 6.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5 and 15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Greater than 15</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

(2) Production of feed crops:

(A) The pH of the water treatment residuals and soil mixture must be 6.5 or greater at the time of land application or at the time the crop is planted, whichever occurs later, and the pH must be maintained whenever feed crops are grown.

(B) There must be a facility operating plan which demonstrates how the feed crops will be distributed to preclude ingestion by humans. The facility operating plan must describe the measure to be taken to safeguard against possible health hazards from cadmium entering the food-chain, which may result from alternative land uses.
(C) Future property owners must be notified by a stipulation in the land record or property deed which states that the property has received water treatment residuals at high cadmium application rates and that food crops should not be grown, due to a possible health hazard.

(b) Land application or disposal of water treatment residuals must not cause or contribute to the harm of a threatened or endangered species of plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.

(c) Water treatment residuals must not be land applied when the ground is flooded, frozen, or snow-covered to prevent the water treatment residuals from entering surface water in the state.

(d) Water treatment residuals must be land applied at an annual whole application rate that is equal to or less than the agronomic rate for the crop. For land application to a reclamation site, the executive director may, on a case-by-case basis, authorize an annual whole application rate that exceeds the agronomic rate for the crop, for a specific time-period.

(e) Water treatment residuals must be land applied or placed on an active
disposal unit by a method and under conditions that prevent runoff of the residuals beyond the land application unit or surface disposal site and that protect the quality of the surface water and the soils in the unsaturated zone.

(1) Water treatment residuals must be land applied or placed uniformly over the land application unit or active disposal unit.

(2) Where runoff of water treatment residuals from the land application unit or surface disposal site is evident, the operator shall cease further application or disposal until the condition is corrected.

(3) A land application unit or active disposal unit located in floodplains shall not restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of water treatment residuals, so as to pose a hazard to human life, wildlife, or land or water resources.

(f) A land application unit or active disposal unit shall not contaminate an underground drinking water source.

(g) Nuisance controls.
(1) A land application unit or surface disposal site location must be selected, and the site operated in a manner to prevent public health nuisances.

(2) Debris must be prevented from blowing or running off-site boundaries or into surface waters.

(3) To prevent nuisance conditions from occurring, the operator shall:

(A) minimize dust migration from the site and access roadways;

(B) minimize offensive odors through incorporation of water treatment residuals into the soil or by taking some other type of preventative action; and

(C) develop and implement best management practices (BMPs) to minimize off-site tracking of water treatment residuals when transporting the material to and from the land application unit, surface disposal site, or storage area. BMPs must also address removing tracked material, to the extent practicable, by the end of each day of operation at the site and either returning it to the site or otherwise disposing of it properly. The documented BMPs shall be retained by the operator and made readily available for review by the executive director.
(h) A registration must specify the soil testing requirements for each land application unit.

(1) The testing frequency must consider common agricultural methods of determining the crop nutrient needs, soil pH, phytotoxicity, and concentrations of metals regulated by this chapter.

(2) The soil testing frequency for metals regulated by this chapter shall be once per five years or prior to submittal of a renewal application. Soil testing for metals regulated by this chapter is not required for portions of the authorized site where water treatment residuals have not been land applied since the last soil metals testing was performed. The executive director may require more frequent soil monitoring if metal loading into the soil is a threat to human health or the environment.

§312.126. Frequency of Monitoring.

(a) Water treatment residuals that are land applied shall be monitored for the metals listed in Table 1 of §312.43(b)(1) of this title (relating to Metal Limits) at the frequency specified in Table 10 of this subsection.

Figure: 30 TAC §312.126(a)
TABLE 10 - FREQUENCY OF MONITORING - WATER TREATMENT RESIDUALS

<table>
<thead>
<tr>
<th>Amount of water treatment residuals* (metric tons per 365-day period)</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to less than 290</td>
<td>once per year</td>
</tr>
<tr>
<td>290 to less than 1,500</td>
<td>once per quarter</td>
</tr>
<tr>
<td>1,500 to less than 15,000</td>
<td>once per 60 days</td>
</tr>
<tr>
<td>15,000 or greater</td>
<td>once per month</td>
</tr>
</tbody>
</table>

* Either the amount of bulk water treatment residuals land applied, or the amount of water treatment residuals received by a person who prepares the water treatment residuals for land application - dry weight basis.

(b) After the water treatment residuals have been monitored for two years at the frequency shown in Table 10 of subsection (a) of this section, the executive director may reduce the monitoring frequency, but in no case shall the monitoring frequency be less than once per year when water treatment residuals are land applied. A request to reduce monitoring frequency must be submitted to the executive director with the sample results from the previous two years.

(c) After the water treatment residuals have been monitored for two years at the frequency shown in Table 10 of subsection (a) of this section, the executive director may increase the monitoring frequency. An increase in monitoring frequency will be required where high metal concentrations are present in the water treatment residuals.

§312.127. Recordkeeping.
(a) A person who prepares the water treatment residuals for land application shall retain the sample results demonstrating compliance with Table 1 of §312.43(b)(1) of this title (relating to Metal Limits) for five years.

(b) A person who derives material from water treatment residuals for land application shall retain the sample results demonstrating compliance with Table 1 of §312.43(b)(1) of this title for five years.

(c) A person who land applies water treatment residuals meeting the requirements in §312.125(a)(1) of this title (relating to Management Practices) shall retain the following information indefinitely:

1. the concentration of cadmium in the water treatment residuals;
2. the amount of water treatment residuals land applied;
3. the number of acres where water treatments residuals were land applied;
4. the cumulative amount of cadmium in the water treatment residuals land applied to each site;
(5) the background soil pH at the time of when water treatment residuals were land applied; and

(6) the soil cation exchange capacity (CEC) in meq/100 grams.

d) A person who land applies water treatment residuals meeting the requirements in §312.125(a)(2) of this title shall retain the information required by §312.125(a)(2) of this title indefinitely.

e) A person who land applies water treatment residuals shall develop the following information and shall retain the information for five years:

(1) the dates of harvesting; and

(2) the amount harvested, excluding grazing.

§312.128. Annual Report.

A person who land applies or disposes of water treatment residuals shall submit a report to the executive director by September 30th of each year (reporting period September 1st of previous year to August 31st of the current year) which
describes land application or disposal activities regulated under this subchapter. The report shall include, at a minimum, the registration or permit number of the land application unit or surface disposal site, the amount of water treatment residuals which have been land applied or disposed of during the reporting period, the information required by §312.127(a)(1) or (2)(B) of this title (relating to Recordkeeping), as applicable, and §312.127(e) of this title, as applicable. The information shall be submitted on forms furnished by the executive director. From the information provided, the executive director will assess an annual fee, in accordance with the requirements of §312.9 of this title (relating to Fee Program).

§312.129. Procedure to Determine the Annual Whole Application Rate for Water Treatment Residuals.

(a) This subsection contains the procedure used to determine the annual whole application rate (AWAR) for water treatment residuals that does not cause the annual cadmium loading rates (ACLR) in §312.125(a)(1) of this title (relating to Management Practices) to be exceeded.

(b) Determine the AWAR using Equation F.1 of this subsection.

Figure: 30 TAC §312.129(b)

Equation F.1
\[ \text{AWAR} = \frac{\text{ACLR}}{C \times 0.001} \]

Where:
\begin{itemize}
  \item \text{ACLR} = \text{Annual cadmium loading rate in kilograms per hectare per 365-day period.}
  \item \text{C} = \text{Cadmium concentration in milligrams per kilogram of total solids (dry weight basis).}
  \item \text{AWAR} = \text{Annual whole application rate in metric tons per hectare per 365-day period (dry weight basis).}
  \item \text{0.001} = \text{A conversion factor.}
\end{itemize}

§312.130. Storage of Water Treatment Residuals.

(a) Written authorization from the executive director is required to store water treatment residuals prior to disposal or land application.

(b) The storage area must be operated and maintained to prevent surface water runoff and to prevent a release to groundwater.

(c) Except as authorized by subsection (d) of this section, storage of water treatment residuals must not exceed two years.
(d) Storage may be increased to a period of up to five years with prior approval from the executive director and when the person who stores the water treatment residuals demonstrates that the land on which the water treatment residuals remain is not an active disposal unit. The demonstration shall include the following information, which shall be reviewed and approved by the executive director and retained by the person who stores the water treatment residuals for the period that the water treatment residuals remain on the land:

(1) the name and address of the person who prepared the water treatment residuals;

(2) the name and address of the person who either owns the land or leases the land;

(3) the location of the land, by latitude and longitude, street address if available, and boundary shown on a 7 1/2-minute quadrangle United States Geological Survey map;

(4) an explanation of why water treatment residuals need to be stored for longer than two years; and
(5) the date by which the water treatment residuals will be used or disposed of. This date must correspond to a storage period of less than five years.
SUBCHAPTER F: DISPOSAL OF WATER TREATMENT SLUDGE

§312.123

Statutory Authority

The repeal is proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

The proposed repealed rule implements TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, and 26.034.

[§312.123. Annual Report.]
[Any person who disposes of water treatment sludge shall submit a report to the executive director by September 1 of each year which describes disposal activities regulated under this subchapter. The report shall include the registration or permit number of the disposal facility and indicate the amount of water treatment sludge which has been disposed. The information shall be submitted on forms furnished by the executive director. From the information provided, the executive director will assess an annual fee, in accordance with the requirements of §312.9 of this title (relating to Sludge Fee Program).]
SUBCHAPTER G: TRANSPORTERS AND TEMPORARY STORAGE PROVISIONS

§§312.141 - 312.147, 312.149, AND 312.150

Statutory Authority

These amendments are proposed under the Texas Water Code (TWC). Specifically, TWC, §5.013, which establishes the general jurisdiction of the commission and TWC, §5.102, which provides the commission with the authority to carry out its duties and general powers under its jurisdictional authority provided by TWC, §5.103; TWC, §5.103, which requires the commission to adopt any rule necessary to carry out its powers and duties under the code and other laws of the state; TWC, §5.105, which authorizes the commission to adopt rules and policies necessary to carry out its responsibilities and duties under the TWC; TWC, §5.120, which requires the commission to administer the law for the maximum conservation and protection of the environment and natural resources of the state; TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state; and TWC, §26.034, which gives the commission the authority to set standards to prevent the discharge of waste that is injurious to the public health.

These amendments are also proposed under TWC, §26.027, which authorizes the commission to issue permits for the discharge of waste or pollutants into or adjacent to water in the state and Texas Health and Safety Code (THSC), §361.121, which gives
the commission the authority to require a permit before a responsible person may apply Class B biosolids on a land application unit.

The proposed amendments implement TWC, §§5.013, 5.102, 5.103, 5.105, 5.120, 26.011, 26.027, and THSC, §361.121, which gives the commission the authority to regulate the land application and transportation of Class B biosolids.

§312.141. Transporters–Applicability and Responsibility.

(a) Rules contained in this subchapter establish standards applicable to persons, including municipalities, state and federal agencies, collecting, generating and/or transporting biosolids/sewage sludge, water treatment residuals [sludge], domestic septage, chemical toilet waste, grit trap waste, or grease trap waste. This chapter also establishes standards applicable to persons and facilities who receive waste from transporters regulated under this subchapter. Methods of transportation shall include measures utilizing roadway, rail, and water.

(b) Transporters of waste subject to control under this subchapter shall only transport the waste types specified in subsection (a) of this section. Each transporter shall take reasonable precautions to ensure that waste handled in accordance with rules contained in this subchapter is not hazardous waste, as defined in Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste).
(c) The processing of wastes is not authorized under this subchapter, except for domestic septage under §312.144(e) of this title (relating to Transporters--Vehicle and Equipment).

(d) These rules are not applicable to persons transporting biosolids [sewage sludge] that do not exceed [meets] the metal concentration limits in §312.43(b)(3) (Table 3) of this title (relating to Metal Limits), meets the requirements in §312.82(a) of this title (relating to Pathogen Reduction), [and] meets one of the requirements in §312.83(b)(1) - (8) of this title (relating to Vector Attraction Reduction), and has been approved for marketing and distribution as authorized in Subchapter B of this chapter (relating to Land Application and Storage of Biosolids and Domestic Septage [for the Beneficial Use]).

§312.142. Transporter Registration.

(a) Persons who plan to transport biosolids/sewage sludge, water treatment residuals [sludge], domestic septage, chemical toilet waste, grit trap waste, or grease trap waste regulated under this subchapter shall apply for registration with the commission on forms furnished by the executive director and receive a registration from the executive director prior to commencing operations.
(b) Failure to submit a complete and accurate application or other information requested by the executive director will result in the return of the application to the applicant. Applications for transportation registrations shall include:

(1) a complete, signed application form(s), signed and notarized, and appropriate copies provided;

(2) the verified legal status of the applicant(s);

(3) the signature of the applicant(s), checked against agency requirements, in accordance with §305.44 of this title (relating to Signatories to Applications);

(4) the attachment of technical reports and supporting data required by the application; and

(5) any other information as the executive director or the commission may reasonably require.

(c) Persons who apply to the commission for registration and receive a registration shall maintain a current copy of the registration authorization, as annotated by the executive director with an assigned registration number, at their
designated place of business and in each vehicle operated under that registration. This registration shall be produced and shown to the operator of the facility receiving the waste at the time of delivery.

(d) The expiration date of the registration shall be August 31st [31] of the year in which it expires. Registrations are required to be renewed biennially prior to the expiration date. Application for renewal shall be submitted by June 15th [15] of the year in which the registration expires. Any registrant shall notify the executive director in writing within 15 days of cessation of operation and request that the registration be cancelled, and request all forms and reports needed to report waste hauled during the period of registration.

(e) A new registration application is required to be submitted within 15 days after any of the following [, whereupon the old registration number will be voided and the old registration cancelled]:

(1) change in ownership of the operating entity; or

(2) determination by the executive director that operations or management methods are no longer adequately described by the existing registration. [; or]
(f) Transporters shall notify the executive director, by letter, within 15 days after any of the following changes of their operation, including, but not limited to:

(1) the office or place of business is moved or its address or telephone number changes;

(2) the name of the operating entity is changed; [or]

(3) a transporter plans to handle a waste not included in the existing registration; [.

(4) a change in license plate numbers of registered vehicles, a new vehicle, and/or an existing vehicle removed from the fleet;

(5) a transporter plans to haul waste to a location not included on the existing registration; or

(6) a transporter plans to remove a location already included on the existing registration.
(g) The commission may revoke or void a registration for cause as provided in §312.150 of this title (relating to Penalties). An opportunity for a formal hearing on the revocation may be requested by the registrant within 20 days after a Notice of Revocation has been sent from the executive director to the last known address of the registrant. If the registration is revoked or voided, a transporter shall not continue to transport the wastes regulated under this subchapter.

(h) An applicant owing delinquent fees or an applicant who has failed to submit required reports will not be eligible to renew their registration to transport waste until all fees and reports are submitted and accepted by the executive director.

(i) A registrant failing to submit the annual summary report by the date due is subject to payment of the maximum fees specified in §312.9(c) of this title (relating to [Sludge] Fee Program).

(j) The commission issues authorization stickers for all registered motor transport vehicles and the fee per motor transport vehicle is $10. [will issue, beginning February 1, 1995, authorization stickers for all registered motor transport vehicles. The commission will charge a fee of $10 per motor transport vehicle.]

§312.143. Transporters--Delivery Requirement and Full Pump-out Requirement.
(a) For in-state disposal, transporters shall deposit wastes at a facility designated by or acceptable to the generator where the owner or operator of the facility agrees to receive the wastes and the facility has written authorization by permit or registration issued by the executive director to receive wastes. In this regard, "authorization by the executive director" means the executive director or commission has given its approval by rule, permit, letter, or other document that identifies the individual facility or class of facilities to receive that specific waste or class of waste. Each grit trap and grease trap pumped shall be fully evacuated unless the trap volume is greater than the tank capacity on the vacuum truck in which case the transporter shall arrange for additional transportation capacity so that the trap is fully evacuated within a 24-hour period. If a transporter cannot fully evacuate a grit trap or grease trap because the trap volume is greater than the tank capacity on the truck, the transporter shall arrange for additional transportation capacity to ensure the trap is fully evacuated within the 24-hour period following the transporter’s inability to fully evacuate the trap.

(b) For out-of-state disposal, transporters shall deposit wastes at a facility designated by or acceptable to the generator where the owner or operator of the facility agrees to receive the wastes and the facility has obtained written authorization by permit or registration to receive wastes as required by the state where the facility is located.
(c) Each grit trap and grease trap pumped shall be fully evacuated unless the trap volume is greater than the tank capacity on the vacuum truck in which case the transporter shall arrange for additional transportation capacity so that the trap is fully evacuated within a 24-hour period.

§312.144. Transporters--Vehicle and Equipment.

(a) Marking and identification. Owners or operators of specially equipped vacuum pump trucks, tanks, or containers used for the collection and/or over-the-road transportation of wastes regulated under this subchapter shall prominently mark such trucks, tanks, or containers to show the following:

(1) company name;

(2) telephone number;

(3) authorization stickers (motor vehicles only); and

(4) the commission assigned registration number on both sides of the vehicles or receptacle.
(A) The registration number shall be a minimum of two inches in height, in block numbers permanently affixed. The registration number must be clearly visible at a distance of 50 feet.

(B) The company name and phone number, authorization stickers, and the registration number shall be removed from the trucks, tanks, or containers, by the registrant, when it is no longer authorized by the commission or leaves the control of the person(s) holding the registration.

(b) Sanitation standards. All vehicles and equipment used for the collection and transportation of the wastes regulated under this subchapter shall be constructed, operated, and maintained to prevent loss of liquid or solid waste materials and to prevent health nuisance and safety hazards to operating personnel and the public. Collection vehicles and equipment shall be maintained in a sanitary condition to preclude nuisance conditions such as odors and insect breeding.

(c) Mixing of incompatible wastes. Mixing of incompatible wastes within the same container is prohibited. Transporters shall not use the same container or pumping equipment to collect or transport incompatible waste without first emptying and cleaning the container and equipment of all previously handled wastes. For purposes of this subsection, incompatible waste are wastes which have different processing, storage, or disposal requirements. However, transporters may mix wastes
with different characteristics provided the facility to which the waste is being transported is authorized to store, process, or dispose of such mixed wastes.

(d) Site gauges. All closed vehicles, tanks, or containers used to transport liquid wastes regulated by this subchapter shall have sight gauges maintained in a manner which can be used to determine whether [or not] a vehicle is loaded and its [the] approximate capacity. Gauges are not required to read in gallons or liters [,] but shall show what percentage of the tank capacity is filled. An alternate method to measure actual volumes may be utilized with prior written approval from the Executive Director.

(e) Septage transport. If [the vehicles, tanks, or containers are used to transport domestic septage to a beneficial use site, the registrant shall keep records showing how] the domestic septage transported meets [met] the pathogen and vector attraction reduction requirements listed in §312.82(c) of this title (relating to Pathogen Reduction) and §312.83 of this title (relating to Vector Attraction Reduction), the registrant shall keep records pertaining to the pathogen and vector attraction reduction requirements. Copies of records pertaining to the pathogen and vector attraction reduction requirements shall be maintained on the vehicles for a minimum of one month and at the land application unit [beneficial use site] and transporter office for a minimum of five years.
(f) Discharge valves. All closed vehicles, tanks, or containers used to transport liquid wastes regulated by this subchapter shall prominently mark all discharge valves and ports. All discharge ports shall be visible and readily accessible.

(g) Inspection. All transport vehicles shall include, but are not limited to, trucks, portable tanks, trailers, barges, or similar transport vehicles/receptacles and are subject to inspection by commission staff authorized by the executive director. If a transport vehicle fails the inspection, the authorization sticker and the commission assigned registration number are to be removed from the vehicle and that vehicle is not authorized to transport waste until the vehicle is re-inspected [reinspected] and passes.

§312.145. Transporters–Recordkeeping.

(a) Trip tickets. Persons who collect and transport waste subject to control under this subchapter shall maintain a record of each individual collection and deposit. Such records must be in the form of a trip ticket. Similar documentation may be used with written approval by the executive director. The trip ticket must include:

(1) name, address, telephone number, and commission registration number of transporter;
(2) name, signature (or electronic signature), address, and telephone number of the person who generated the waste and the date collected;

(3) type and amount(s) of waste collected or transported;

(4) name and signature(s) of responsible person(s) collecting, transporting, and depositing the waste;

(5) date and place where the waste was deposited;

(6) identification (permit or site registration number, location, and operator) of the facility where the waste was deposited;

(7) name and signature (or electronic signature) of facility on-site representative acknowledging receipt of the waste and the amount of waste received; and

(8) the volume of the grease and grit trap or the septic tank.

(b) Maintenance of records and reporting.
(1) Trip tickets. Trip tickets must be divided into five parts and records of trip tickets must be maintained as follows.

(A) One part of the trip ticket must have the generator and transporter information completed and be given to the generator at the time of waste pickup.

(B) The remaining four parts of the trip ticket must have all required information completely filled out and signed by the appropriate party before distribution of the trip ticket.

(C) One part of the trip ticket must go to the receiving facility.

(D) One part of the trip ticket must go to the transporter, who shall retain a copy of all trip tickets showing the collection and disposition of waste.

(E) One copy of the trip ticket must be returned by the transporter to the person who generated the waste within 15 days after the waste is received at the disposal or processing facility.

(F) One part of the trip ticket must go to the local authority, if needed.
(2) Record retention. Copies of trip tickets must be retained for five years and be readily available for review by commission staff or be submitted to the executive director upon request.

(3) Rail or barge transport. Persons who transport waste via rail or barge may use an alternate recordkeeping system, if approved by the executive director.

(4) Reporting. By July 1st, [1] transporters must submit to the executive director an annual summary of their activities for the previous period of June 1st [1] through May 31st, [31] showing the amounts and types of waste collected and delivered to each facility. [following:]

[(A) amounts and types of waste collected;]

[(B) disposition of such wastes; and]

[(C) amounts and types of waste delivered to each facility.]  

(c) Discrepancies. A facility that receives waste must note any significant discrepancies on each copy of the trip ticket.
(1) Trip ticket discrepancies are differences between the quantity or type of waste designated on the trip ticket, and the quantity or type of waste a facility actually received. Significant discrepancies in type are obvious differences that can be discovered by inspection or waste analysis. Significant discrepancies in quantity are:

(A) for bulk weight, variations greater than 10% in weight; and

(B) for liquid waste, any variation greater than 15% in gallons.

(2) Upon discovering a significant discrepancy, the transporter must attempt to reconcile the discrepancy with the waste generator or owner or operator of the receiving facility (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after delivering the waste, the transporter must immediately submit to the executive director a letter describing the discrepancy and attempts to reconcile it, and a copy of the trip ticket.

(d) Notification. A facility that receives waste from a transporter that cannot produce a registration acknowledgment under §312.142(c) of this title (relating to Transporter Registration) must notify the appropriate regional office of the commission within three days of the waste receipt of the transporter's failure to produce a current registration authorization.
(e) Local ordinances. Where local ordinances require controls and records substantially equivalent to or more stringent than the requirements of subsection (a) of this section, transporters may use such controls and records to satisfy the commission's requirement under this section.

§312.146. Transporters--Discharge or Spills.

In the event of a discharge or spill of waste during collection or transportation, the collector or transporter must take appropriate action to protect human health and the environment (e.g., notify local law enforcement and health authorities; dike the discharge area; clean up any waste discharge that occurs during transportation; or take such action as may be required or approved by federal, state, or local officials having jurisdiction so that the waste discharge no longer presents a human [public] health or environmental problem). Transporters are responsible for reporting certain spills to the executive director in accordance with requirements of the State of Texas Oil and Hazardous Substance Spill Contingency Plan and the Texas Water Code, Chapter 26.039.

§312.147. Temporary Storage.

(a) Transporters who store waste in a mobile closed container (container on wheels) shall not store the waste for more than four days.
(b) Transporters who temporarily store waste at a fixed or permanent site shall obtain approval in writing from the executive director prior to engaging in such activities. The storage site shall comply with the following standards.

(1) The temporary storage of waste shall not exceed 30 days.

(2) The use of lagoons and/or in-ground storage tanks are not authorized under the provision of this section.

(3) If the waste is not stored in a closed vessel, the location of the storage site shall meet the buffer zone requirement in §312.44(d) of this title (relating to Management Practices).

(4) The storage of waste shall not cause or contribute to the harm of a threatened or endangered species of plant, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of a threatened or endangered species.

(5) The waste shall be stored by a method and under conditions that prevent runoff and protect the quality of the surface water and groundwater.
(6) The storage site shall not be located on land within a designated base flood zone (100-year floodplain).

(7) A storage site location shall be selected, and the site operated in a manner to prevent public health nuisances. Where nuisance conditions exist, the operator shall take necessary action to abate such nuisances.

(c) Recordkeeping. Transporters who store waste shall develop the following information and shall retain the information for five years:

(1) the date, volume, and type of waste deposited into temporary storage facility;

(2) the date, volume, and type of waste removed from temporary storage facility; and

(3) the identification (permit or site registration number, location, and operator) of the facility where the waste removed from the temporary storage facility was deposited.

[(a)] Persons who engage in the transportation of wastes (subject to regulation under this subchapter) from Texas to other states or from other states to Texas, or persons who collect or transport such waste in Texas but have their place of business in another state, shall comply with all the requirements for transporters contained in §§312.141 - 312.150 of this title (relating to Transporters and Temporary Storage Provisions). If such persons also engage in any activity of managing such wastes in Texas by storage, processing, beneficial use, or disposal, they shall follow the applicable requirements of this chapter for such activities.

[(b) Prior to approval of a transporter registration by the executive director, persons who engage in the transportation of wastes (subject to regulation under this subchapter) from Texas to other states or from other states to Texas, shall submit to the executive director copies of authorization(s) that allow transportation and/or disposal of waste in another state(s), including the state in which the office or place of business is located.]

§312.150. Penalties.

Failure of a transporter to properly and correctly maintain records, trip tickets, or other documents; or failure of a transporter to submit to the executive director correct information on the annual summary report or on an application for registration by the required due date; or unauthorized discharges of sewage sludge,
biosolids, water treatment residuals [sludge], domestic septage, chemical toilet waste, grit trap waste, or grease trap waste shall be sufficient cause for the commission to void the transporter's registration and authorization to transport such wastes. The commission may also take any other action authorized by law to secure compliance, including the assessment of administrative penalties or seeking of civil penalties as prescribed by law and the rules of the commission.