The Texas Commission on Environmental Quality (commission) adopts amendments to §§312.8, 312.50, and 312.64 *without changes* to the proposed text as published in the May 16, 2003 issue of the *Texas Register* (28 TexReg 3919) and will not be republished.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

Senate Bill 405, 77th Legislature, established the Texas Board of Professional Geoscientists and the regulation of professional geoscientists. The Geoscience Practice Act (the Act) requires that a person may not take responsible charge of a geoscientific report or a geoscientific portion of a report required by state agency rule unless the person is licensed through the Texas Board of Professional Geoscientists. The primary purpose of the adopted amendments is to establish regulations for the public practice of geoscience in conformance with the Act by requiring a person who prepares and submits geoscientific information to the commission to be a licensed professional geoscientist. The Act also allows certain specified engineers to publicly practice geoscience in conformance with the Act. According to the bill analysis prepared at the time of passage, the ultimate purpose of the Act was public safety through the public registration of the practice of geoscience.

SECTION BY SECTION DISCUSSION

Adopted §312.8, General Definitions, amends the introductory paragraph by deleting the word "shall" and the phrase "unless the context clearly indicates otherwise." The definition of licensed professional geoscientist is added as a new paragraph (46) and the definition of qualified groundwater scientist is deleted. The definitions for Clean Water Act (CWA), commission, United States Environmental

Protection Agency (EPA), executive director, and person are deleted because these definitions are located in 30 TAC §3.2. All existing paragraphs are renumbered accordingly.

Adopted §312.50(a), Storage and Staging of Sludge at Beneficial Use Sites, substitutes "must" for "shall." In subsection (a)(4), the use of "groundwater" as a single word reflects current agency usage and a minor punctuation error is corrected. Subsection (a)(4) requires that certification of the completed storage area lining be made by a licensed professional engineer or licensed professional geoscientist prior to using the facilities and that the certification be signed, sealed, and dated by a licensed professional engineer or licensed professional geoscientist.

Adopted §312.64, Management Practices, amends subsection (n) by substituting "must" for "shall" in the first sentence and replaces licensed professional geoscientist or licensed professional engineer for qualified groundwater scientist as the person who shall develop the groundwater monitoring program or certify that sewage sludge will not contaminate an aquifer. The licensed professional geoscientist shall also sign, seal, and date the certification or the results of the program.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rulemaking in light of the regulatory analysis requirements of Texas Government Code, §2001.0225 and determined that the rulemaking is not subject to §2001.0225 because it does not meet the criteria for a "major environmental rule" as defined in that statute.

A “major environmental rule” means a rule the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

The specific intent of the rules is to establish regulations allowing for the public practice of geoscience in agency procedures in conformance with the Act. The Act requires that a person may not take responsible charge of a geoscientific report or a geoscientific portion of a report required by a state agency rule unless the person is licensed through the Texas Board of Professional Geoscientists. The rules are not specifically intended to protect the environment or reduce risks to human health. The rules are intended to establish procedures to require that specific reports and necessary data submitted to the commission be produced, signed, sealed, and dated by licensed professional geoscientists who have obtained their licenses through the Texas Board of Professional Geoscientists. Therefore, it is not anticipated that the rules will adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The commission concludes that these rules do not meet the definition of major environmental rule.

Furthermore, even if the rulemaking did meet the definition of a major environmental rule, the amendments are not subject to Texas Government Code, §2001.0225, because they do not accomplish any of the four results specified in §2001.0225(a). Section 2001.0225(a) applies to a rule adopted by an agency, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically

required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) 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; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

In this case, the amendments to Chapter 312 do not meet any of these requirements. First, there are no federal standards that these rules would exceed. Second, the rules do not exceed an express requirement of state law. Third, there is no delegation agreement that would be exceeded by these rules. Fourth, the commission adopts these rules to allow for the public practice of geoscience in agency procedures in conformance with the Act. Therefore, the commission does not adopt the rules solely under the commission's general powers.

TAKINGS IMPACT ASSESSMENT

The commission evaluated these rules and performed a preliminary assessment of whether these rules constitute a takings under Texas Government Code, Chapter 2007. The specific intent of the rules is to establish regulations allowing for the public practice of geoscience in agency procedures in conformance with the Act. The rules would substantially advance this stated purpose by requiring that specific reports and necessary data submitted to the commission be produced, signed, sealed, and dated by licensed professional geoscientists who have obtained their licenses through the Texas Board of Professional Geoscientists.

Promulgation and enforcement of these rules would be neither a statutory nor a constitutional taking of private real property. Specifically, the rules do not affect a landowner's rights in private real property by burdening private real property, nor restricting or limiting a landowner's right to property, or reducing the value of property by 25% or more beyond that which would otherwise exist in the absence of the adopted rulemaking. These rules simply require that specific portions of applications or necessary data submitted to the commission be produced, signed, sealed, and dated by a qualified professional individual who has demonstrated his or her qualifications by obtaining a license to engage in the public practice of geoscience from the Texas Board of Professional Geoscientists. These rules do not affect any private real property.

There are no burdens imposed on private real property, and the benefits to society are better applications for environmental permits based upon reliable reports and data submitted by qualified licensed professional geoscientists.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the rulemaking and found that the rulemaking is identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(2), relating to Actions and Rules Subject to the Texas Coastal Management Program (CMP), or will affect an action and/or authorization identified in Coastal Coordination Act Implementation Rules, 31 TAC §505.11(a)(6), and will therefore require that applicable goals and policies of the CMP be considered during the rulemaking process. The commission prepared a consistency determination for the rules under 31 TAC §505.22 and found that the rulemaking is consistent with the applicable CMP goals and policies. The following is a

summary of that determination. The CMP goal applicable to the rulemaking is the goal to protect, preserve, restore, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas. CMP policies applicable to the rules include the construction and operation of solid waste treatment, storage, and disposal facilities, and the discharge of municipal and industrial wastewater to coastal waters. Promulgation and enforcement of these rules will not violate (exceed) any standards identified in the applicable CMP goals and policies because the rule changes do not modify or alter standards set forth in existing rules, and do not govern or authorize any actions subject to the CMP. The rulemaking would require a person who prepares and submits geoscientific information to the agency to be a licensed professional geoscientist.

PUBLIC COMMENT

A public hearing was not held on this rulemaking and one comment was received from the Texas Board of Professional Geoscientists during the comment period which closed June 16, 2003.

RESPONSE TO COMMENT

The Texas Board of Professional Geoscientists stated that the proposed rules add needed clarification to commission rules as the rules relate to the role of professional geoscientists.

The commission appreciates the support from the Texas Board of Geoscientists.

SUBCHAPTER A: GENERAL PROVISIONS

§312.8

STATUTORY AUTHORITY

The amendment is adopted under Texas Water Code, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its power and duties under this code and other laws of this state; §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; and Texas Civil Statutes, Article 3271b, the Act, which authorizes the public practice of geoscience in the State of Texas.

§312.8. General Definitions.

The following words and terms, when used in this chapter, have the following meanings.

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

(2) **Active sludge unit** - A sludge unit that has not closed and/or is still receiving sewage sludge.

(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 (AMU)** - 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 pollutant (dry weight basis) that can be applied to a unit area of land during a 365-day period.

(9) **Annual whole sludge application rate** - The maximum amount of sewage sludge that can be applied to a unit area of land during a 365-day period.

(10) **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) **Aquifer** - A geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding groundwater to wells or springs.

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

(13) **Beneficial use** - Placement of sewage sludge onto land in a manner which complies with the requirements of Subchapter B of this chapter (relating to Land Application for Beneficial Use and Storage at Beneficial Use Sites), and does not exceed the agronomic need or rate for a cover crop, or any metal or toxic constituent limitations which the cover crop may have. Placement of sewage sludge on the land at a rate below the optimal agronomic rate will be considered a beneficial use.

(14) **Bulk sewage sludge** - Sewage sludge that is not sold or given away in a bag or other container for application to the land.

(15) **CFR** - Code of Federal Regulations.

(16) **Class A sewage sludge** - Sewage sludge meeting one of the pathogen reduction requirements in §312.82(a) of this title (relating to Pathogen Reduction).

(17) **Class B sewage sludge** - Sewage sludge meeting one of the pathogen reduction requirements in §312.82(b) of this title.

(18) **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.

(19) **Cover** - Soil or other material used to cover sewage sludge placed on an active sludge unit.

(20) **Cover crop** - Grasses or small grain crop, such as oats, wheat, or barley, not grown for harvest.

(21) **Cumulative metal loading rate** - The maximum amount of an inorganic pollutant (dry weight basis) that may be applied to a unit area of land.

(22) **Density of microorganisms** - The number of microorganisms per unit mass of total solids (dry weight basis) in the sewage sludge.

(23) **Displacement** - The relative movement of any two sides of a fault measured in any direction.

(24) **Disposal** - The placement of sewage sludge on the land for any purpose other than beneficial use. Disposal shall 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.

(25) **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.

(26) **Domestic sewage** - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

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

(28) **Experimental use** - Non-routine beneficial use land application or reclamation projects where sewage sludge is added to the soil for research purposes, in pilot projects, feasibility studies, or similar projects.

(29) **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.

(30) **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.

(31) **Feed crops** - Crops produced primarily for consumption by domestic livestock, such as swine, goats, cattle, or poultry.

(32) **Fiber crops** - Crops such as flax and cotton.

(33) **Final cover** - The last layer of soil or other material placed on a sludge unit at closure.

(34) **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.

(35) **Food crops** - Crops consumed by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

(36) **Forest** - Land densely vegetated with trees and/or underbrush.

(37) **Grit trap waste** - Includes waste from interceptors 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.

(38) **Groundwater** - Water below the land surface in the saturated zone.

(39) **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.

(40) **Industrial wastewater** - Wastewater generated in a commercial or industrial process.

(41) **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.

(42) **Land application** - The spraying or 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 so that the sewage sludge can either condition the soil or fertilize crops or vegetation grown in the soil.

(43) **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.

(44) **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.

(45) **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 sludge unit.

(46) **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.

(47) **Liner** - Soil or synthetic material that has a hydraulic conductivity of 1×10^{-7} centimeters per second or less. Soil liners shall 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 shall be a membrane with a minimum thickness of 20 mils and include an underdrain leak detection system.

(48) **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.

(49) **Metal limit** - A numerical value that describes the amount of a metal allowed per unit amount of sewage sludge (e.g., milligrams per kilogram of total solids); the amount of a pollutant that can be applied to a unit area of land (e.g. kilograms per hectare); or the volume of a material that can be applied to a unit area of land (e.g., gallons per acre).

(50) **Monofill** - A landfill or landfill trench in which sewage sludge is the only type of solid waste placed.

(51) **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 management; or a designated and approved management agency under 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 Clean Water Act, §201(e), as amended, that has as one of its principal responsibilities the treatment, transport, use, or disposal of sewage sludge.

(52) **Off-site** - Property which cannot be characterized as "on-site."

(53) **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 shall be by crossing the right-of-way or the right-of-way shall be under the control of the person.

(54) **Operator** - The person responsible for the overall operation of a facility or beneficial use site.

(55) **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.

(56) **Owner** - The person who owns a facility or part of a facility.

(57) **Pasture** - Land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, forbs, or stover.

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

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

(60) **Place sewage sludge or sewage sludge placed** - Disposal of sewage sludge on a surface disposal site.

(61) **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.

(62) **Process or processing** - For the purposes of this chapter, these terms shall have the same meaning as “treat” or “treatment.”

(63) **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.

(64) **Range land** - Open land with indigenous vegetation.

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

(66) **Runoff** - Rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off the land surface.

(67) **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.

(68) **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 generated during preliminary treatment of domestic sewage in a treatment works.

(69) **Sewage sludge debris** - Solid material such as rubber, plastic, glass, or other trash which may pass through a wastewater treatment process or sludge process or 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.

(70) **Sludge lagoon** - An existing surface impoundment located on-site at a wastewater treatment plant for the storage of sewage sludge. Any other type impoundment shall be considered an active sludge unit, as defined in this section.

(71) **Sludge unit** - Land on which only sewage sludge is placed for disposal. A sludge unit shall be used for sewage sludge. This does not include land on which sewage sludge is either stored or treated.

(72) **Sludge unit boundary** - The outermost perimeter of a surface disposal site.

(73) **Source separated yard waste** - For purposes of this chapter, shall have the same definition as found in Chapter 332 of this title (relating to Composting).

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

(75) **Staging** - Temporary holding of sewage sludge at a beneficial use site, for up to a maximum of seven calendar days, prior to the land application of the sewage sludge.

(76) **Store or storage** - The placement of sewage sludge on land for longer than seven days.

(77) **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).

(78) **Three hundred sixty-five day period** - A running total which covers the period between sludge application to a site and the nutrient uptake of the cover crop.

(79) **Total solids** - The materials in sewage sludge that remain as residue if the sewage sludge is dried at 103 degrees Celsius to 105 degrees Celsius.

(80) **Transporter** - Any person who collects, conveys, or transports sewage sludge, water treatment plant sludges, grit trap waste, grease trap waste, chemical toilet waste, and/or septage by roadway, ship, rail, or other means.

(81) **Treat or treatment of sewage sludge** - The preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

(82) **Treatment works** - Either a federally owned, publicly owned, or 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.

(83) **Unstablized solids** - Organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

(84) **Unstable area** - Land subject to natural or human induced forces that may damage the structural components of an active sewage sludge unit. This includes, but is not limited to, land on which the soils are subject to mass movement.

(85) **Vector attraction** - The characteristic of sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

(86) **Volatile solids** - The amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550 degrees Celsius in the presence of excess oxygen.

(87) **Water treatment sludge** - 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).

(88) **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.

SUBCHAPTER B: LAND APPLICATION FOR BENEFICIAL USE

AND STORAGE AT BENEFICIAL USE SITES

§312.50

STATUTORY AUTHORITY

The amendment is adopted under Texas Water Code, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its power and duties under this code and other laws of this state; §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; and Texas Civil Statutes, Article 3271b, the Act, which authorizes the public practice of geoscience in the State of Texas.

§312.50. Storage and Staging of Sludge at Beneficial Use Sites.

(a) Except as provided in subsection (b) of this section, storage of sludge at a beneficial land application 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 storm water or wastewater which has come into contact with sewage sludge is prohibited. The storage area shall be designed to collect such runoff.

Any runoff collected during the storage of 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 public health and the environment.

(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 1×10^{-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 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 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 animals.

(7) Berms or dikes shall be constructed to contain the waste without leakage.

(8) Liquid sludge must be stored in an enclosed vessel.

(9) Processing of sludge is prohibited unless a permit is obtained from the commission.

(b) Up to an additional 90 days of storage will be allowed with the prior approval of the appropriate Texas Commission on Environmental Quality regional office, for reasons associated with application area flooding, saturated soils, or frozen soils.

(c) Staging of sewage sludge on-site, prior to land application, is allowable without executive director approval. Staging of sewage sludge may only occur for a maximum of seven calendar days.

SUBCHAPTER C: SURFACE DISPOSAL

§312.64

STATUTORY AUTHORITY

The amendment is adopted under Texas Water Code, §5.103, which provides the commission with the authority to adopt rules necessary to carry out its power and duties under this code and other laws of this state; §5.105, which authorizes the commission to establish and approve all general policy of the commission by rule; and Texas Civil Statutes, Article 3271b, the Act, which authorizes the public practice of geoscience in the State of Texas.

§312.64. Management Practices.

(a) Sewage sludge shall not be placed on an active 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 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 sludge unit in that site shall be designed to withstand the maximum recorded horizontal ground-level acceleration.

(d) An active sludge unit shall be located 60 meters or more from a fault that has displacement in Holocene time, unless otherwise approved by the commission.

(e) An active sludge unit shall not be located in an unstable area.

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

(g) Runoff from an active 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 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 sludge unit that has a liner and leachate collection system shall be operated and maintained during the period the sludge unit is active and for three years after the sludge unit closes.

(i) Leachate from an active 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 sludge unit is active and for three years after the sludge unit closes.

(j) When a cover is placed on an active 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 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 sludge unit is active. When a final cover is placed on a 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 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 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 sludge unit, unless the owner/operator of the surface disposal site demonstrates to the commission that through additional management practices, public health and the environment are protected from any reasonably anticipated adverse effects of metals in sewage sludge when crops are grown.

(l) Animals shall not be grazed on an active sludge unit, unless the owner/operator of the surface disposal site demonstrates to the commission that through additional management practices, public health and the environment are protected from any reasonably anticipated adverse effects of metals in sewage sludge when 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 sludge unit and for a period of three years after the last active 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 placed on an active 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 placed on an active 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.