The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes amendments to §290.38 and §290.39.

Background and Summary of the Factual Basis for the Proposed Rules

The proposed rules are intended to implement statutory changes made by House Bill (HB) 1600 and Senate Bill (SB) 567 of the 83rd Texas Legislature, 2013, and SB 1842 of the 85th Texas Legislature, 2017.

The Public Utility Commission of Texas (PUC) Sunset Legislation, HB 1600 and SB 567 transferred from the TCEQ to the PUC the functions relating to the economic regulation of water and wastewater utilities. The specific intent of the proposed rulemaking is to amend TCEQ rules in Chapter 290 resulting from the proposed repeal of rules in 30 TAC Chapter 291.

SB 1842 amended Texas Health and Safety Code (THSC), §341.035(d) to include a Class A utility, as defined by Texas Water Code (TWC), §13.002, among the entities exempt from the requirement to file a business plan for a public drinking water supply system with the TCEQ. The Class A utility is required to have applied for or been granted an amendment of a certificate of convenience and necessity (CCN) under TWC, §13.258 for the area in which the construction of the public drinking water supply system will operate.

Concurrent with this proposal, and published in this issue of the *Texas Register*, the commission is proposing revisions to 30 TAC Chapter 35, Emergency and Temporary Orders

and Permits; Temporary Suspension or Amendment of Permit Conditions; Chapter 37, Financial Assurance; Chapter 50, Action on Applications and Other Authorizations; Chapter 55, Requests for Reconsideration and Contested Case Hearings; Public Comment; Chapter 80, Contested Case Hearings; Chapter 281, Applications Processing; Chapter 291, Utility Regulations; and Chapter 293, Water Districts.

Section by Section Discussion

In addition to the proposed revisions associated with this rulemaking, the proposed rulemaking also includes various stylistic, non-substantive changes to update rule language to current *Texas Register* style and format requirements. Such changes include appropriate and consistent use of acronyms, section references, rule structure, and certain terminology. Where paragraphs are proposed, subsequent paragraphs are renumbered accordingly. These changes are non-substantive and generally not specifically discussed in this preamble.

§290.38, Definitions

The commission proposes to amend the definition of "Affected utility" in §290.38(1) to update the cross-reference to exempt utility in amended §291.103. Additionally, the commission proposes to modify to correct the alphabetization of definitions in paragraphs (45) and (46) and paragraphs (64) and (65).

§290.39, General Provisions

The commission proposes §290.39(g)(4) to include a Class A utility, as defined by TWC, §13.002, among the entities exempt from the requirement to file a business plan for a

public drinking water supply system with the TCEQ. The Class A utility is required to have applied for or been granted an amendment of a CCN under TWC, §13.258 for the area in which the construction of the public drinking water supply system will operate.

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 rules are is in effect, no fiscal implications are anticipated for the agency or for other units of state or local government as a result of administration or enforcement of the proposed rules.

The rulemaking is proposed in order to amend rules for a program transferred to PUC through the passage of HB 1600 and SB 567. Effective September 1, 2014, HB 1600 and SB 567 transferred the responsibility for regulating water and wastewater rates, services, and CCNs from the commission to the PUC.

Staff, fees, and functions relating to the economic regulation of water and wastewater utilities were transferred from the TCEQ to the PUC in Fiscal Year 2015. The agency transferred $1,429,818 out of Water Resource Management Account Number 153 funds and 20.0 full-time employees (FTEs) to the PUC. In addition, there was also a transfer of $184,000 to the PUC to cover the cost of the contract with the State Office of Administrative Hearings for water and wastewater utility contested case hearings. The Office of Public Utility Counsel was appropriated $499,680 in Water Resource Management Account Number 153 funds and 5.0 FTEs in Fiscal Year 2015 to represent water and wastewater utility

customers as provided by the provisions of HB 1600 and SB 567.

For Fiscal Year 2016, the legislature increased the appropriation to the PUC and the Office of Public Utility Counsel; the total cost to the Water Resource Management Account Number 153 for Fiscal Years 2016 and 2017 was $3,567,824 and $3,567,824. The total cost to the Water Resource Management Account Number 153 for Fiscal Year 2018 was $3,470,453.

Since the transfer of the administration and regulation of water and wastewater rates, services, and CCNs has already taken place, there are no fiscal implications anticipated for the agency, PUC, or for other units of state or local government as a result of the implementation or administration of the proposed rules.

The proposed rulemaking also implements changes made by SB 1842, which exempts certain Class A utilities from the requirements to file a business plan for a public drinking water system with the commission. No fiscal implications to the state or local government are expected from this proposed amendment.

Public Benefits and Costs

Ms. Bearse also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rules will be compliance with state law and clear rules for the administration and regulation of water and wastewater rates, services, and certificates of convenience and necessity.

The proposed rules are not expected to result in fiscal implications for businesses or individuals.

The amendments would modify rules as a result of the transfer of the responsibility for the economic regulation of water and wastewater utilities to the PUC. Staff and fees associated with the implementation of the program have been transferred from the TCEQ to the PUC.

The proposed rulemaking also implements changes made by SB 1842, which exempts certain Class A utilities from the requirements to file a business plan for a public drinking water system with the commission.

Local Employment Impact Statement

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

Rural Community Impact Assessment

The commission reviewed this proposed rulemaking and determined that the proposed rules do not adversely affect rural communities in a material way for the first five years that the proposed rules are in effect. The amendments 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 rules for the first five-year period the proposed rules are in effect. The proposed rulemaking modifies current rules to reflect the transfer of the regulation of water and wastewater rates, services, and CCNs to the PUC. The proposed rulemaking also implements changes made by SB 1842, which exempts certain Class A utilities from the requirements to file a business plan for a public drinking water system with the commission.

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 rules do not adversely affect a small or micro-business in a material way for the first five years the proposed rules are 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; will not require an increase or decrease in future legislative appropriations to the agency; require the creation of new employee positions nor eliminate current employee positions; nor will it require an increase or decrease in fees paid to the agency. The proposed rulemaking does not create or expand an existing regulation, but it does limit a regulation and may decreased the number of individuals affected by the regulation by exempting a Class A utility from having to submit a business plan for a public drinking

water supply system to the commission. During the first five years that the proposed rules are in effect, the proposed rules 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. Texas Government Code, §2001.0225 applies to a "Major environmental rule" which is defined in Texas Government Code, §2001.0225(g)(3) as a rule with a specific intent "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."

First, the proposed rulemaking does not meet the statutory definition of a "Major environmental rule" because its specific intent is not to protect the environment or reduce risks to human health from environmental exposure. The PUC Sunset Legislation, HB 1600 and SB 567, transferred from the TCEQ to the PUC the functions relating to the economic regulation of water and wastewater utilities. SB 1842 amends THSC, §341.035(d) to exempt a Class A utility, as defined by TWC, §13.258 from the requirement to file a business plan for a public drinking water supply system with the TCEQ. The Class A utility is required to have applied for or been granted an amendment of a CCN under TWC, §13.258 for the area in which the construction of the public drinking water supply system will operate. The specific

intent of the proposed rulemaking is to amend Chapter 290 relating to the economic regulation of water and wastewater utilities and to include certain Class A utilities among the entities exempt from the requirement to file a business plan for a public drinking water system with the TCEQ. Therefore, the intent is not to protect the environment or reduce risks to human health from environmental exposure, but instead to amend rules relating to economic regulation of water and wastewater utilities as those functions were transferred to the PUC and to exempt certain Class A utilities from the requirement to file a business plan with the TCEQ.

Second, the proposed rulemaking does not meet the statutory definition of a "Major environmental rule" because the proposed rules would not 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. It is not anticipated that the cost of complying with the proposed rules will be significant with respect to the economy as a whole or with respect to a sector of the economy; therefore, the proposed amendments will not adversely affect in a material way the economy, a sector of the economy, competition, or jobs.

Finally, the proposed rulemaking does not meet any of the four applicability requirements for a "Major environmental rule" listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225 only applies to a major environmental rule, 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. This proposed rulemaking does not meet any of the four preceding applicability requirements because this rulemaking: 1) does not exceed any standard set by federal law for the economic regulation of water or wastewater utilities; 2) does not exceed any express requirements of TWC, Chapter 11, 12, or 13, which relate to the economic regulation of water and wastewater utilities or THSC, Chapter 341 relating to the minimum standards of sanitation and health protection measures; 3) 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; and 4) is not proposed solely under the general powers of the agency.

Since this proposed rulemaking does not meet the statutory definition of a "Major environmental rule" nor does it meet any of the four applicability requirements for a "Major environmental rule" this rulemaking is not subject to Texas Government Code, §2001.0225.

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 this proposed rulemaking and performed a preliminary

assessment of whether these proposed rules constitute a taking under Texas Government Code, Chapter 2007.

The commission proposes these rules for the following purposes: 1) to amend TCEQ rules in Chapter 290 relating to the economic regulation of water and wastewater utilities as those functions have transferred from the TCEQ to the PUC; and 2) to exempt certain Class A utilities from the requirement to file a business plan for a public drinking water system with the TCEQ.

The commission's analysis indicates that Texas Government Code, Chapter 2007, does not apply to the amendment in Chapter 290 relating to the economic regulation of water and wastewater utilities based upon an exception to applicability in Texas Government Code, §2007.003(b)(5). Texas Government Code, §2007.003(b)(5) provides an exemption for the discontinuation or modification of a program or regulation that provides a unilateral expectation that does not rise to the level of a recognized interest in private real property. The proposed rulemaking is a discontinuance of the economic regulation of water and wastewater utilities within the TCEQ, which, if it provides any unilateral expectation, provides a unilateral expectation that does not rise to the level of a recognized interest in private real property. Because the amendments of TCEQ rules in Chapter 290 relating to the economic regulation of water and wastewater utilities falls within an exception under Texas Government Code, §2007.003(b)(5), Texas Government Code, Chapter 2007 does not apply to this portion of the proposed rulemaking.

Further, the commission determined that amending TCEQ rules in Chapter 290 relating to

the economic regulation of water and wastewater utilities and exempting certain Class A utilities from the requirement to file a business plan with the TCEQ for a public drinking water system would be neither a statutory nor a constitutional taking of private real property. Specifically, there are no burdens imposed on private real property under the rules because the proposed rules neither relate to, nor have any impact on, the use or enjoyment of private real property, and there would be no reduction in property value as a result of these rules. The specific intent of the proposed rulemaking is to amend TCEQ rules relating to the economic regulation of water and wastewater utilities and to exempt certain Class A utilities from the requirement to file a business plan for a public drinking water system with the TCEQ. Therefore, the proposed rules would not constitute a taking under Texas Government Code, Chapter 2007.

Consistency with the Coastal Management Program

The commission reviewed the proposed rules and found that they are neither identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(b)(2) or (4), nor will they affect any action/authorization identified in Coastal Coordination Act implementation rules, 31 TAC §505.11(a)(6). Therefore, the proposed rules are not subject to the Texas Coastal Management Program.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on August 7, 2018, at 2:00 p.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 Ms. Kris Hogan, 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 2013-057-291-OW. The comment period closes on August 13, 2018. 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 Dickey, Water Supply Division, Plan and Technical Review Section at (512) 239-0963.

SUBCHAPTER D: RULES AND REGULATIONS FOR PUBLIC WATER SYSTEMS

§290.38, §290.39

Statutory Authority

The amendments are proposed under Texas Water Code (TWC), §5.102, concerning General Powers, which provides the commission with the general powers to carry out its duties under the TWC; and TWC, §5.103, concerning Rules, which provides the commission with the authority to adopt any rules necessary to carry out its powers and duties under the provisions of the TWC and other laws of this state.

The proposed amendments implement House Bill 1600 and Senate Bill 567 passed by the 83rd Texas Legislature, 2013. Additionally, the proposed amendments implement Senate Bill 1842 passed by the 85th Texas Legislature, 2017.

§290.38. Definitions.

The following words and terms, when used in this chapter shall have the following meanings, unless the context clearly indicates otherwise. If a word or term used in this chapter is not contained in the following list, its definition shall be as shown in 40 Code of Federal Regulations (CFR) §141.2. Other technical terms used shall have the meanings or definitions listed in the latest edition of *The Water Dictionary: A Comprehensive Reference of Water Terminology,* prepared by the American Water Works Association.

(1) Affected utility--A retail public utility (§291.3 of this title (relating to Definitions of Terms)), exempt utility (§291.103[(d)(1)] of this title (relating to Certificates Not Required)), or provider or conveyor of potable or raw water service that furnishes water service to more than one customer:

(A) in a county with a population of 3.3 million or more; or

(B) in a county with a population of 550,000 or more adjacent to a county with a population of 3.3 million or more.

(2) Air gap--The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water to a tank, fixture, receptor, sink, or other assembly and the flood level rim of the receptacle. The vertical, physical separation must be at least twice the diameter of the water supply outlet, but never less than 1.0 inch.

(3) American National Standards Institute (ANSI) standards--The standards of the American National Standards Institute, Inc.

(4) American Society of Mechanical Engineers (ASME) standards--The standards of the ASME.

(5) American Water Works Association (AWWA) standards--The latest edition of the applicable standards as approved and published by the AWWA.

(6) Approved laboratory--A laboratory approved by the executive director to analyze water samples to determine their compliance with certain maximum or minimum allowable constituent levels.

(7) ASTM International standards--The standards of ASTM International (formerly known as the American Society for Testing and Materials).

(8) Auxiliary power--Either mechanical power or electric generators which can enable the system to provide water under pressure to the distribution system in the event of a local power failure. With the approval of the executive director, dual primary electric service may be considered as auxiliary power in areas which are not subject to large scale power outages due to natural disasters.

(9) Bag filter--Pressure-driven separation device that removes particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to the outside.

(10) Baseline performance--In reference to a membrane treatment facility, the detailed assessment of observed operational conditions at the time the membrane facility is

placed in service for the purpose of tracking changes over time and determining when maintenance or service is required. Examples of parameters where baseline performance data is collected include: net driving pressure, normalized permeate flow, salt rejection, and salt passage.

(11) Cartridge filter--Pressure-driven separation device that removes particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

(12) Certified laboratory--A laboratory certified by the commission to analyze water samples to determine their compliance with maximum allowable constituent levels. After June 30, 2008, laboratories must be accredited, not certified, in order to perform sample analyses previously performed by certified laboratories.

(13) Challenge test--A study conducted to determine the removal efficiency (log removal value) of a device for a particular organism, particulate, or surrogate.

(14) Chemical disinfectant--Any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone added to the water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogenic microorganisms.

(15) Community water system--A public water system which has a potential to serve at least 15 residential service connections on a year-round basis or serves at least 25 residents on a year-round basis.

(16) Connection--A single family residential unit or each commercial or industrial establishment to which drinking water is supplied from the system. As an example, the number of service connections in an apartment complex would be equal to the number of individual apartment units. When enough data is not available to accurately determine the number of connections to be served or being served, the population served divided by three will be used as the number of connections for calculating system capacity requirements. Conversely, if only the number of connections is known, the connection total multiplied by three will be the number used for population served. For the purposes of this definition, a dwelling or business which is connected to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection if:

(A) the water is used exclusively for purposes other than those defined as human consumption (see human consumption);

(B) the executive director determines that alternative water to achieve the equivalent level of public health protection provided by the drinking water standards is provided for residential or similar human consumption, including, but not limited to, drinking and cooking; or

(C) the executive director determines that the water provided for residential or similar human consumption is centrally treated or is treated at the point of entry by a provider, a pass through entity, or the user to achieve the equivalent level of protection provided by the drinking water standards.

(17) Contamination--The presence of any foreign substance (organic, inorganic, radiological, or biological) in water which tends to degrade its quality so as to constitute a health hazard or impair the usefulness of the water.

(18) Cross-connection--A physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process.

(19) Direct integrity test--A physical test applied to a membrane unit in order to identify and isolate integrity breaches/leaks that could result in contamination of the filtrate.

(20) Disinfectant--A chemical or a treatment which is intended to kill or inactivate pathogenic microorganisms in water.

(21) Disinfection--A process which inactivates pathogenic organisms in the water by chemical oxidants or equivalent agents.

(22) Distribution system--A system of pipes that conveys potable water from a treatment plant to the consumers. The term includes pump stations, ground and elevated storage tanks, potable water mains, and potable water service lines and all associated valves, fittings, and meters, but excludes potable water customer service lines.

(23) Drinking water--All water distributed by any agency or individual, public or private, for the purpose of human consumption or which may be used in the preparation of foods or beverages or for the cleaning of any utensil or article used in the course of preparation or consumption of food or beverages for human beings. The term "drinking water" shall also include all water supplied for human consumption or used by any institution catering to the public.

(24) Drinking water standards--The commission rules covering drinking water standards in Subchapter F of this chapter (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems).

(25) Elevated storage capacity--That portion of water which can be stored at least 80 feet above the highest service connection in the pressure plane served by the storage tank.

(26) Emergency operations--The operation of an affected utility during an extended power outage at a minimum water pressure of 35 pounds per square inch.

(27) Emergency power--Either mechanical power or electric generators which can enable the system to provide water under pressure to the distribution system in the event of a local power failure. With the approval of the executive director, dual primary electric service may be considered as emergency power in areas which are not subject to large scale power outages due to natural disasters.

(28) Extended power outage--A power outage lasting for more than 24 hours.

(29) Filtrate--The water produced from a filtration process; typically used to describe the water produced by filter processes such as membranes.

(30) Flux--The throughput of a pressure-driven membrane filtration system expressed as flow per unit of membrane area. For example, gallons per square foot per day or liters per hour per square meter.

(31) Grantee--For purposes of this chapter, any person receiving an ownership interest in a public water system, whether by sale, transfer, descent, probate, or otherwise.

(32) Grantor--For purposes of this chapter, any person who conveys an ownership interest in a public water system, whether by sale, transfer, descent, probate, or otherwise.

(33) Groundwater--Any water that is located beneath the surface of the ground and is not under the direct influence of surface water.

(34) Groundwater under the direct influence of surface water--Any water beneath the surface of the ground with:

(A) significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia* or *Cryptosporidium;*

(B) significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH which closely correlate to climatological or surface water conditions; or

(C) site-specific characteristics including measurements of water quality parameters, well construction details, existing geological attributes, and other features that are similar to groundwater sources that have been identified by the executive director as being under the direct influence of surface water.

(35) Health hazard--A cross-connection, potential contamination hazard, or other situation involving any substance that can cause death, illness, spread of disease, or has a high probability of causing such effects if introduced into the potable drinking water supply.

(36) Human consumption--Uses by humans in which water can be ingested into or absorbed by the human body. Examples of these uses include, but are not limited to drinking, cooking, brushing teeth, bathing, washing hands, washing dishes, and preparing foods.

(37) Indirect integrity monitoring--The monitoring of some aspect of filtrate water quality, such as turbidity, that is indicative of the removal of particulate matter.

(38) Innovative/alternate treatment--Any treatment process that does not have specific design requirements in §290.42(a) - (f) of this title (relating to Water Treatment).

(39) Interconnection--A physical connection between two public water supply systems.

(40) International Fire Code (IFC)--The standards of the International Code Council.

(41) Intruder-resistant fence--A fence six feet or greater in height, constructed of wood, concrete, masonry, or metal with three strands of barbed wire extending outward from the top of the fence at a 45 degree angle with the smooth side of the fence on the outside wall. In lieu of the barbed wire, the fence must be eight feet in height. The fence must be in good repair and close enough to surface grade to prevent intruder passage.

(42) L/d ratio--The dimensionless value that is obtained by dividing the length (depth) of a granular media filter bed by the weighted effective diameter "d" of the filter media. The weighted effective diameter of the media is calculated based on the percentage of the total bed depth contributed by each media layer.

(43) Licensed professional engineer--An engineer who maintains a current license through the Texas Board of Professional Engineers in accordance with its requirements for professional practice.

(44) Log removal value (LRV)--Removal efficiency for a target organism, particulate, or surrogate expressed as $\log_{10}$ (i.e., $\log_{10}$ (feed concentration) - $\log_{10}$ (filtrate concentration)).

[(45) Maximum daily demand--In the absence of verified historical data or in cases where a public water system has imposed mandatory water use restrictions within the past 36 months, maximum daily demand means 2.4 times the average daily demand of the system.]

45 [(46)] Maximum contaminant level (MCL)--The MCL for a specific contaminant is defined in the section relating to that contaminant.

(46) Maximum daily demand--In the absence of verified historical data or in cases where a public water system has imposed mandatory water use restrictions within the

past 36 months, maximum daily demand means 2.4 times the average daily demand of the system.

(47) Membrane filtration--A pressure or vacuum driven separation process in which particulate matter larger than one micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test; includes the following common membrane classifications microfiltration (MF), ultrafiltration (UF), nanofiltration (NF), and reverse osmosis (RO), as well as any "membrane cartridge filtration" (MCF) device that satisfies this definition.

(48) Membrane $LRV_{C\text{-}Test}$--The number that reflects the removal efficiency of the membrane filtration process demonstrated during challenge testing. The value is based on the entire set of log removal values (LRVs) obtained during challenge testing, with one representative LRV established per module tested.

(49) Membrane module--The smallest component of a membrane unit in which a specific membrane surface area is housed in a device with a filtrate outlet structure.

(50) Membrane sensitivity--The maximum log removal value that can be reliably verified by a direct integrity test.

(51) Membrane unit--A group of membrane modules that share common valving, which allows the unit to be isolated from the rest of the system for the purpose of integrity testing or other maintenance.

(52) Milligrams per liter (mg/L)--A measure of concentration, equivalent to and replacing parts per million in the case of dilute solutions.

(53) Monthly reports of water works operations--The daily record of data relating to the operation of the system facilities compiled in a monthly report.

(54) National Fire Protection Association (NFPA) standards--The standards of the NFPA.

(55) NSF International--The organization and the standards, certifications, and listings developed by NSF International (formerly known as the National Sanitation Foundation) related to drinking water.

(56) Noncommunity water system--Any public water system which is not a community system.

(57) Nonhealth hazard--A cross-connection, potential contamination hazard, or other situation involving any substance that generally will not be a health hazard, but will constitute a nuisance, or be aesthetically objectionable, if introduced into the public water supply.

(58) Nontransient, noncommunity water system--A public water system that is not a community water system and regularly serves at least 25 of the same persons at least six months out of the year.

(59) Pass--In reference to a reverse osmosis or nanofiltration membrane system, stages of pressure vessels in series in which the permeate from one stage is further processed in a following stage.

(60) Peak hourly demand--In the absence of verified historical data, peak hourly demand means 1.25 times the maximum daily demand (prorated to an hourly rate) if a public water supply meets the commission's minimum requirements for elevated storage capacity and 1.85 times the maximum daily demand (prorated to an hourly rate) if the system uses pressure tanks or fails to meet the commission's minimum elevated storage capacity requirement.

(61) Plumbing inspector--Any person employed by a political subdivision for the purpose of inspecting plumbing work and installations in connection with health and safety laws and ordinances, who has no financial or advisory interest in any plumbing company, and who has successfully fulfilled the examinations and requirements of the Texas State Board of Plumbing Examiners.

(62) Plumbing ordinance--A set of rules governing plumbing practices which is at least as stringent and comprehensive as one of the following nationally recognized codes:

(A) the International Plumbing Code; or

(B) the Uniform Plumbing Code.

(63) Potable water customer service line--The sections of potable water pipe between the customer's meter and the customer's point of use.

[(64) Potable water service line--The section of pipe between the potable water main and the customer's side of the water meter. In cases where no customer water meter exists, it is the section of pipe that is under the ownership and control of the public water system.]

64 [(65)] Potable water main--A pipe or enclosed constructed conveyance operated by a public water system which is used for the transmission or distribution of drinking water to a potable water service line.

(65) Potable water service line--The section of pipe between the potable water main and the customer's side of the water meter. In cases where no customer water meter exists, it is the section of pipe that is under the ownership and control of the public water system.

(66) Potential contamination hazard--A condition which, by its location, piping or configuration, has a reasonable probability of being used incorrectly, through carelessness, ignorance, or negligence, to create or cause to be created a backflow condition by which contamination can be introduced into the water supply. Examples of potential contamination hazards are:

(A) bypass arrangements;

(B) jumper connections;

(C) removable sections or spools; and

(D) swivel or changeover assemblies.

(67) Process control duties--Activities that directly affect the potability of public drinking water, including: making decisions regarding the day-to-day operations and maintenance of public water system production and distribution; maintaining system pressures; determining the adequacy of disinfection and disinfection procedures; taking routine microbiological samples; taking chlorine residuals and microbiological samples after repairs or installation of lines or appurtenances; and operating chemical feed systems, filtration, disinfection, or pressure maintenance equipment; or performing other duties approved by the executive director.

(68) psi--Pounds per square inch.

(69) Public drinking water program--Agency staff designated by the executive director to administer the Safe Drinking Water Act and state statutes related to the regulation of public drinking water. Any report required to be submitted in this chapter to the executive director must be submitted to the Texas Commission on Environmental Quality, Water Supply Division, MC 155, P.O. Box 13087, Austin, Texas 78711-3087.

(70) Public health engineering practices--Requirements in this chapter or guidelines promulgated by the executive director.

(71) Public water system--A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, which includes all uses described under the definition for drinking water. Such a system must have at least 15 service connections or serve at least 25 individuals at least 60 days out of the year. This term includes: any collection, treatment, storage, and distribution facilities under the control of the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Two or more systems with each having a potential to serve less than 15 connections or less than 25 individuals but owned by the same person, firm, or corporation and located on adjacent land will be considered a public water system when the total potential service connections in the combined systems are 15 or greater or if the total number of individuals served by the combined systems total 25 or greater at least 60 days out of the year. Without excluding other meanings of the terms "individual" or

"served," an individual shall be deemed to be served by a water system if he lives in, uses as his place of employment, or works in a place to which drinking water is supplied from the system.

(72) Quality Control Release Value (QCRV)--A minimum quality standard of a non-destructive performance test established by the manufacturer for membrane module production that ensures that the module will attain the targeted log removal value demonstrated during challenge testing.

(73) Reactor Validation Testing--A process by which a full-scale ultraviolet (UV) reactor's disinfection performance is determined relative to operating parameters that can be monitored. These parameters include flow rate, UV intensity as measured by a UV sensor and the UV lamp status.

(74) Resolution--The size of the smallest integrity breach that contributes to a response from a direct integrity test in membranes used to treat surface water or groundwater under the direct influence of surface water.

(75) Sanitary control easement--A legally binding document securing all land, within 150 feet of a public water supply well location, from pollution hazards. This document must fully describe the location of the well and surrounding lands and must be filed in the county records to be legally binding. For an example, see commission Form 20698.

(76) Sanitary survey--An onsite review of a public water system's adequacy for producing and distributing safe drinking water by evaluating the following elements: water source; treatment; distribution system; finished water storage; pump, pump facilities, and controls; monitoring, reporting, and data verification; system management, operation and maintenance; and operator compliance.

(77) Sensitivity--The maximum log removal value (LRV) that can be reliably verified by a direct integrity test in membranes used to treat surface water or groundwater under the direct influence of surface water; also applies to some continuous indirect integrity monitoring methods.

(78) Service line--A pipe connecting the utility service provider's main and the water meter, or for wastewater, connecting the main and the point at which the customer's service line is connected, generally at the customer's property line.

(79) Service pump--Any pump that takes treated water from storage and discharges to the distribution system.

(80) Significant deficiency--Significant deficiencies cause, or have the potential to cause, the introduction of contamination into water delivered to customers. This may include defects in design, operation, or maintenance of the source, treatment, storage, or distribution systems.

(81) Stage--In reference to a reverse osmosis or nanofiltration membrane system, a set of pressure vessels installed in parallel.

(82) System--Public water system as defined in this section unless otherwise modified (i.e., distribution system).

(83) Transfer pump--Any pump which conveys water from one point to another within the treatment process or which conveys water to storage facilities prior to distribution.

(84) Transient, noncommunity water system--A public water system that is not a community water system and serves at least 25 persons at least 60 days out of the year, yet by its characteristics, does not meet the definition of a nontransient, noncommunity water system.

(85) Vessel--In reference to a reverse osmosis or nanofiltration membrane system, a cylindrical housing unit where membrane modules are placed in a series to form one unit.

(86) Wastewater lateral--Any pipe or constructed conveyance carrying wastewater, running laterally down a street, alley, or easement, and receiving flow only from the abutting properties.

(87) Wastewater main--Any pipe or constructed conveyance which receives flow from one or more wastewater laterals.

(88) Water system--Public water system as defined in this section unless otherwise modified (i.e., distribution system).

§290.39. General Provisions.

(a) Authority for requirements. Texas Health and Safety Code (THSC), Chapter 341, Subchapter C prescribes the duties of the commission relating to the regulation and control of public drinking water systems in the state. The statute requires that the commission ensure that public water systems: supply safe drinking water in adequate quantities, are financially stable and technically sound, promote use of regional and area-wide drinking water systems, and review completed plans and specifications and business plans for all contemplated public water systems not exempted by THSC, §341.035(d). The statute also requires the commission be notified of any subsequent material changes, improvements, additions, or alterations in existing systems and, consider compliance history in approving new or modified public water systems. Texas Water Code (TWC), §13.1395, prescribes the duties of the commission relating to standards for emergency operations of affected utilities. The statute requires that the commission ensure that affected utilities provide water service as soon as safe and practicable during an extended power outage following the occurrence of a natural disaster.

(b) Reason for this subchapter and minimum criteria. This subchapter has been adopted to ensure regionalization and area-wide options are fully considered, the inclusion of all data essential for comprehensive consideration of the contemplated project, or improvements, additions, alterations, or changes thereto and to establish minimum standardized public health design criteria in compliance with existing state statutes and in accordance with good public health engineering practices. In addition, minimum acceptable financial, managerial, technical, and operating practices must be specified to ensure that facilities are properly operated to produce and distribute safe, potable water.

(c) Required actions and approvals prior to construction. A person may not begin construction of a public drinking water supply system unless the executive director determines the following requirements have been satisfied and approves construction of the proposed system.

(1) A person proposing to install a public drinking water system within the extraterritorial jurisdiction of a municipality; or within 1/2-mile of the corporate boundaries of a district, or other political subdivision providing the same service; or within 1/2-mile of a certificated service area boundary of any other water service provider shall provide to the executive director evidence that:

(A) written application for service was made to that provider; and

(B) all application requirements of the service provider were satisfied, including the payment of related fees.

(2) A person may submit a request for an exception to the requirements of paragraph (1) of this subsection if the application fees will create a hardship on the person. The request must be accompanied by evidence documenting the financial hardship.

(3) A person who is not required to complete the steps in paragraph (1) of this subsection, or who completes the steps in paragraph (1) of this subsection and is denied service or determines that the existing provider's cost estimate is not feasible for the development to be served, shall submit to the executive director:

(A) plans and specifications for the system; and

(B) a business plan for the system.

(4) Emergency Preparedness Plan for Public Water Systems that are Affected Utilities.

(A) Each public water system that is also an affected utility, as defined by §290.38 of this title (relating to Definitions), is required to submit to the executive director, receive approval for, and adopt an emergency preparedness plan in accordance with §290.45 of this title (relating to Minimum Water System Capacity Requirements) using

either the template in Appendix G of §290.47 of this title (relating to Appendices) or another emergency preparedness plan that meets the requirements of this section. Emergency preparedness plans are required to be prepared under the direction of a licensed professional engineer when an affected utility has been granted or is requesting an alternative capacity requirement in accordance with §290.45(g) of this title, or is requesting to meet the requirements of TWC, §13.1395, as an alternative to any rule requiring elevated storage, or as determined by the executive director on a case-by-case basis.

(B) Each affected utility that supplies, provides, or conveys surface water to wholesale customers shall include in its emergency preparedness plan under subparagraph (A) of this paragraph provision for the actual installation and maintenance of automatically starting auxiliary generators or distributive generation facilities for each raw water intake pump station, water treatment plant, pump station, and pressure facility necessary to provide water to its wholesale customers.

(C) The executive director shall review an emergency preparedness plan submitted under subparagraph (A) of this paragraph. If the executive director determines that the plan is not acceptable, the executive director shall recommend changes to the plan. The executive director must make its recommendations on or before the 90th day after the executive director receives the plan. In accordance with commission rules, an emergency preparedness plan must include one of the options listed in §290.45(h)(1)(A) - (H) of this title.

(D) Each affected utility shall install any required equipment to implement the emergency preparedness plan approved by the executive director immediately upon operation.

(E) The executive director may grant a waiver of the requirements for emergency preparedness plans to an affected utility if the executive director determines that compliance with this section will cause a significant financial burden on customers of the affected utility. The affected utility shall submit financial, managerial, and technical information as requested by the executive director to demonstrate the financial burden.

(d) Submission of plans.

(1) Plans, specifications, and related documents will not be considered unless they have been prepared under the direction of a licensed professional engineer. All engineering documents must have engineering seals, signatures, and dates affixed in accordance with the rules of the Texas Board of Professional Engineers.

(2) Detailed plans must be submitted for examination at least 30 days prior to the time that approval, comments or recommendations are desired. From this, it is not to be inferred that final action will be forthcoming within the time mentioned.

(3) The limits of approval are as follows.

(A) The commission's public drinking water program furnishes consultation services as a reviewing body only, and its licensed professional engineers may neither act as design engineers nor furnish detailed estimates.

(B) The commission's public drinking water program does not examine plans and specifications in regard to the structural features of design, such as strength of concrete or adequacy of reinforcing. Only the features covered by this subchapter will be reviewed.

(C) The consulting engineer and/or owner must provide surveillance adequate to assure that facilities will be constructed according to approved plans and must notify the executive director in writing upon completion of all work. Planning materials shall be submitted to the Texas Commission on Environmental Quality, Water Supply Division, MC 159, P.O. Box 13087, Austin, Texas 78711-3087.

(e) Submission of planning material. In general, the planning material submitted shall conform to the following requirements.

(1) Engineering reports are required for new water systems and all surface water treatment plants. Engineering reports are also required when design or capacity deficiencies are identified in an existing system. The engineering report shall include, at least, coverage of the following items:

(A) statement of the problem or problems;

(B) present and future areas to be served, with population data;

(C) the source, with quantity and quality of water available;

(D) present and estimated future maximum and minimum water quantity demands;

(E) description of proposed site and surroundings for the water works facilities;

(F) type of treatment, equipment, and capacity of facilities;

(G) basic design data, including pumping capacities, water storage and flexibility of system operation under normal and emergency conditions; and

(H) the adequacy of the facilities with regard to delivery capacity and pressure throughout the system.

(2) All plans and drawings submitted may be printed on any of the various papers which give distinct lines. All prints must be clear, legible and assembled to facilitate review.

(A) The relative location of all facilities which are pertinent to the specific project shall be shown.

(B) The location of all abandoned or inactive wells within 1/4-mile of a proposed well site shall be shown or reported.

(C) If staged construction is anticipated, the overall plan shall be presented, even though a portion of the construction may be deferred.

(D) A general map or plan of the municipality, water district, or area to be served shall accompany each proposal for a new water supply system.

(3) Specifications for construction of facilities shall accompany all plans. If a process or equipment which may be subject to probationary acceptance because of limited application or use in Texas is proposed, the executive director may give limited approval. In such a case, the owner must be given a bonded guarantee from the manufacturer covering acceptable performance. The specifications shall include a statement that such a bonded guarantee will be provided to the owner and shall also specify those conditions under which the bond will be forfeited. Such a bond will be transferable. The bond shall be retained by the owner and transferred when a change in ownership occurs.

(4) A copy of each fully executed sanitary control easement and any other documentation demonstrating compliance with §290.41(c)(1)(F) of this title (relating to

Water Sources) shall be provided to the executive director prior to placing the well into service. Each original easement document, if obtained, must be recorded in the deed records at the county courthouse. For an example, see commission Form 20698.

(5) Construction features and siting of all facilities for new water systems and for major improvements to existing water systems must be in conformity with applicable commission rules.

(6) For public water systems using reverse osmosis or nanofiltration membranes, the engineering report must include the requirements specified in paragraph (1)(A) - (H) of this subsection, and additionally must provide sufficient information to ensure effective treatment. Specifically:

(A) Provide a clear identification of the proposed raw water source.

(i) If the well has been constructed, a copy of the State of Texas Well Report according to 16 TAC Chapter 76 (relating to Water Well Drillers and Water Well Pump Installers), a cementing certificate (as required by §290.41(c)(3)(A) of this title), and a copy of the complete physical and chemical analysis of the raw water from the well as required by §290.41(c)(3)(G) of this title; or

(ii) If the well has not been constructed, the approximate longitude and latitude for the new well and the projected water quality.

(B) Provide a description of the pretreatment process that includes:

(i) target water quality of the proposed pretreatment process;

(ii) constituent(s) to be removed or treated;

(iii) method(s) or technologies used; and

(iv) operating parameters, such as chemical dosages, filter loading rates, and empty bed contact times.

(C) The design of a reverse osmosis or nanofiltration membrane system shall be based on the standard modeling tools of the manufacturer. The model must be run for both new membranes and end-of-life membranes. All design parameters required by the membrane manufacturer's modeling tool must be included in the modeled analysis. At a minimum, the model shall provide:

(i) system flow rate;

(ii) system recovery;

(iii) number of stages;

(iv) number of passes;

(v) feed pressure;

(vi) system configuration with the number of vessels per stage, the number of passes (if applicable), and the number of elements per vessel;

(vii) flux (in gallons per square foot per day) for the overall system;

(viii) selected fouling factor for new and end-of-life membranes; and

(ix) ion concentrations in the feed water for all constituents required by the manufacturer's model and the projected ion concentrations for the permeate water and concentrate water.

(D) In lieu of the modeling requirements as detailed in subparagraph (C) of this paragraph, the licensed professional engineer may provide either a pilot study or similar full-scale data in accordance with §290.42(g) of this title (relating to Water Treatment). Alternatively, for reverse osmosis or nanofiltration units rated for flow rates less than 300 gallons per minute, the design specifications can be based on the allowable operating parameters of the manufacturer.

(E) Provide documentation that the components and chemicals for the proposed treatment process conform to American National Standards Institute/NSF International (ANSI/NSF) Standard 60 for Drinking Water Treatment Chemicals and ANSI/NSF Standard 61 for Drinking Water System Components.

(F) Provide the details for post-treatment and re-mineralization to reduce the corrosion potential of the finished water. If carbon dioxide and/or hydrogen sulfide is present in the reverse osmosis permeate, include the details for a degasifier for post-treatment.

(G) For compliance with applicable drinking water quality requirements in Subchapter F of this chapter (relating to Drinking Water Standards Governing Drinking Water Quality and Reporting Requirements for Public Water Systems), provide the projected water quality at the entry point to the distribution system and the method(s) used to make the water quality projections.

(H) When blending is proposed, provide the blending ratio, source of the water to be blended, and the calculations showing the concentrations of regulated constituents in the finished water.

(I) Provide a description of the disinfection byproduct formation potential based on total organic carbon and other precursor sample results.

(J) Provide the process control details to ensure the integrity of the membrane system. The engineering report shall identify specific parameters and set points that indicate when membrane cleaning, replacement, and/or inspection is necessary.

(i) The parameters shall be based on one, or more of the following: increased salt passage, increased or decreased pressure differential, and/or change in normalized permeate flow.

(ii) Define the allowable change from baseline performance.

(7) Before reverse osmosis or nanofiltration membrane systems can be used to produce drinking water, but after the reverse osmosis or nanofiltration membrane system has been constructed at the water system, the licensed professional engineer must submit an addendum to the engineering report required by paragraph (6) of this subsection to the executive director for review and approval. The addendum shall include the following verification data of the full-scale treatment process:

(A) Provide the initial baseline performance of the plant. The baseline net driving pressure, normalized permeate flow, and salt rejection (or salt passage) must be documented when the reverse osmosis or nanofiltration membrane systems are placed online.

(B) Provide the frequency of cleaning or membrane replacement. The frequency must be based on a set time interval or at a set point relative to baseline performance of the unit(s).

(C) If modeling is used as the basis for the design, provide verification of the model's accuracy. If the baseline performance evaluation shows that the modeling projection in the engineering report were inaccurate, the licensed professional engineer shall determine if the deviation from the modeled projections resulted from incorrect water quality assumptions or from other incorrect data in the model. The model shall be considered inaccurate if the overall salt passage or the required feed pressure is 10% greater than the model projection. For any inaccurate model, provide a corrected model with the addendum to the engineering report.

(D) Provide verification of plant capacity. The capacity of the reverse osmosis and nanofiltration membrane facility shall be based on the as-built configuration of the system and the design parameters in the engineering report with adjustments as indicated by the baseline performance. Refer to paragraph (6)(C) of this subsection and §290.45(a)(6) of this title for specific considerations.

(E) Provide a complete physical and chemical analysis of the water. The analyses shall be in accordance with §290.41(c)(3)(G) of this title for the raw water (before any treatment), the water produced from the membrane systems, and the water after any

post-treatment. Samples must be submitted to an accredited laboratory for chemical analyses.

(8) The calculations for sizing feed pump(s) and chemical storage tank(s) must be submitted to demonstrate that a project meets chemical feed and storage capacity requirements.

(f) Submission of business plans. The prospective owner of the system or the person responsible for managing and operating the system must submit a business plan to the executive director that demonstrates that the owner or operator of the system has available the financial, managerial, and technical capability to ensure future operation of the system in accordance with applicable laws and rules. The executive director may order the prospective owner or operator to demonstrate financial assurance to operate the system in accordance with applicable laws and rules as specified in Chapter 37, Subchapter O of this title (relating to Financial Assurance for Public Drinking Water Systems [and Utilities]), or as specified by commission rule, unless the executive director finds that the business plan demonstrates adequate financial capability. A business plan shall include the information and be presented in a format prescribed by the executive director. For community water systems, the business plan shall contain, at a minimum, the following elements:

(1) description of areas and population to be served by the potential system;

(2) description of drinking water supply systems within a two-mile radius of the proposed system, copies of written requests seeking to obtain service from each of those drinking water supply systems, and copies of the responses to the written requests;

(3) time line for construction of the system and commencement of operations;

(4) identification of and costs of alternative sources of supply;

(5) selection of the alternative to be used and the basis for that selection;

(6) identification of the person or entity which owns or will own the drinking water system and any identifiable future owners of the drinking water system;

(7) identification of any other businesses and public drinking water system(s) owned or operated by the applicant, owner(s), parent organization, and affiliated organization(s);

(8) an operations and maintenance plan which includes sufficient detail to support the budget estimate for operation and maintenance of the facilities;

(9) assurances that the commitments and resources needed for proper operation and maintenance of the system are, and will continue to be, available, including

the qualifications of the organization and each individual associated with the proposed system;

(10) for retail public utilities as defined by TWC, §13.002:

(A) projected rate revenue from residential, commercial, and industrial customers; and

(B) pro forma income, expense, and cash flow statements;

(11) identification of any appropriate financial assurance, including those being offered to capital providers;

(12) a notarized statement signed by the owner or responsible person that the business plan has been prepared under his direction and that he is responsible for the accuracy of the information; and

(13) other information required by the executive director to determine the adequacy of the business plan or financial assurance.

(g) Business plans not required. A person is not required to file a business plan if the person:

(1) is a county;

(2) is a retail public utility as defined by TWC, §13.002, unless that person is a utility as defined by that section;

(3) has executed an agreement with a political subdivision to transfer the ownership and operation of the water supply system to the political subdivision; [or]

(4) is a Class A utility, as defined by TWC, §13.002, that has applied for or been granted an amendment of a certificate of convenience and necessity under TWC, §13.258, for the area in which the construction of the public drinking water supply system will operate; or

(5) [(4)] is a noncommunity nontransient water system and the person has demonstrated financial assurance under THSC, Chapter 361 or Chapter 382 or TWC, Chapter 26.

(h) Beginning and completion of work.

(1) No person may begin construction on a new public water system before receiving written approval of plans and specifications and, if required, approval of a business plan from the executive director. No person may begin construction of modifications to a public water system without providing notification to the executive

director and submitting and receiving approval of plans and specifications if requested in accordance with subsection (j) of this section.

(2) The executive director shall be notified in writing by the design engineer or the owner before construction is started.

(3) Upon completion of the water works project, the engineer or owner shall notify the executive director in writing as to its completion and attest to the fact that the completed work is substantially in accordance with the plans and change orders on file with the commission.

(i) Changes in previously approved plans and specifications. Any addenda or change orders which may involve a health hazard or relocation of facilities, such as wells, treatment units, and storage tanks, shall be submitted to the executive director for review and approval.

(j) Changes in existing systems or supplies. Public water systems shall notify the executive director prior to making any significant change or addition to the system's production, treatment, storage, pressure maintenance, or distribution facilities. Significant changes in existing systems or supplies shall not be instituted without the prior approval of the executive director.

(1) Public water systems shall submit plans and specifications to the executive director for the following significant changes:

(A) proposed changes to existing systems which result in an increase or decrease in production, treatment, storage, or pressure maintenance capacity;

(B) proposed changes to the disinfection process used at plants that treat surface water or groundwater that is under the direct influence of surface water including changes involving the disinfectants used, the disinfectant application points, or the disinfectant monitoring points;

(C) proposed changes to the type of disinfectant used to maintain a disinfectant residual in the distribution system;

(D) proposed changes in existing distribution systems when the change is greater than 10% of the number of connections, results in the water system's inability to comply with any of the applicable capacity requirements of §290.45 of this title, or involves interconnection with another public water system; and

(E) any other material changes specified by the executive director.

(2) Public water systems shall notify the executive director in writing of the addition of treatment chemicals, including long-term treatment changes, that will impact the corrosivity of the water. These are considered to be significant changes that require written approval from the executive director.

(A) Examples of long-term treatment changes that could impact the corrosivity of the water include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants, and switching corrosion inhibitor products. Long-term changes can include dose changes to existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.

(B) After receiving the notification, the executive director will determine whether the submittal of plans and specifications will be required. Upon request of the executive director, the water system shall submit plans and specifications in accordance with the requirements of subsection (d) of this section.

(3) Plans and specifications may not be required for changes that are specifically addressed in paragraph (1)(D) of this subsection in the following situations:

(A) Unless plans and specifications are required by Chapter 293 of this title (relating to Water Districts), the executive director will not require another state agency or a political subdivision to submit planning material on distribution line improvements if the entity has its own internal review staff and complies with all of the following criteria:

(i) the internal review staff includes one or more licensed professional engineers that are employed by the political subdivision and must be separate from, and not subject to the review or supervision of, the engineering staff or firm charged with the design of the distribution extension under review;

(ii) a licensed professional engineer on the internal review staff determines and certifies in writing that the proposed distribution system changes comply with the requirements of §290.44 of this title (relating to Water Distribution) and will not result in a violation of any provision of §290.45 of this title;

(iii) the state agency or political subdivision includes a copy of the written certification described in this subparagraph with the initial notice that is submitted to the executive director.

(B) Unless plans and specifications are required by Chapter 293 of this title, the executive director will not require planning material on distribution line improvements from any public water system that is required to submit planning material to another state agency or political subdivision that complies with the requirements of subparagraph (A) of this paragraph. The notice to the executive director must include a statement that a state statute or local ordinance requires the planning materials to be submitted to the other state agency or political subdivision and a copy of the written certification that is required in subparagraph (A) of this paragraph.

(4) Public water systems shall notify the executive director in writing of proposed replacement or change of membrane modules, which may be a significant change. After receiving the notification, the executive director will determine whether the submittal of plans and specifications will be required. Upon request of the executive director, the system shall submit plans and specifications in accordance with the requirements of subsection (d) of this section. In its notification to the executive director, the system shall include the following information:

(A) The membrane module make/type, model, and manufacturer;

(B) The membrane plant's water source (groundwater, surface water, groundwater under the direct influence of surface water, or other);

(C) Whether the membrane modules are used for pathogen treatment or not;

(D) Total number of membrane modules per membrane unit; and

(E) The number of membrane modules being replaced or changed for each membrane unit.

(k) Planning material acceptance. Planning material for improvements to an existing system which does not meet the requirements of all sections of this subchapter will not be considered unless the necessary modifications for correcting the deficiencies are included in

the proposed improvements, or unless the executive director determines that reasonable progress is being made toward correcting the deficiencies and no immediate health hazard will be caused by the delay.

(l) Exceptions. Requests for exceptions to one or more of the requirements in this subchapter shall be considered on an individual basis. Any water system which requests an exception must demonstrate to the satisfaction of the executive director that the exception will not compromise the public health or result in a degradation of service or water quality.

(1) The exception must be requested in writing and must be substantiated by carefully documented data. The request for an exception shall precede the submission of engineering plans and specifications for a proposed project for which an exception is being requested.

(2) Any exception granted by the commission is subject to revocation.

(3) Any request for an exception which is not approved by the commission in writing is denied.

(4) The executive director may establish site-specific requirements for systems that have been granted an exception. The requirements may include, but are not limited to: site-specific design, operation, maintenance, and reporting requirements.

(5) Water systems that are granted an exception shall comply with the requirements established by the executive director under paragraph (4) of this subsection.

(m) Notification of system startup or reactivation. The owner or responsible official must provide written notification to the commission of the startup of a new public water supply system or reactivation of an existing public water supply system. This notification must be made immediately upon meeting the definition of a public water system as defined in §290.38 of this title.

(n) The commission may require the owner or operator of a public drinking water supply system that was constructed without the approval required by THSC, §341.035, that has a history of noncompliance with THSC, Chapter 341, Subchapter C or commission rules, or that is subject to a commission enforcement action to take the following action:

(1) provide the executive director with a business plan that demonstrates that the system has available the financial, managerial, and technical resources adequate to ensure future operation of the system in accordance with applicable laws and rules. The business plan must fulfill all the requirements for a business plan as set forth in subsection (f) of this section;

(2) provide adequate financial assurance of the ability to operate the system in accordance with applicable laws and rules. The executive director will set the amount of the

financial assurance, after the business plan has been reviewed and approved by the executive director.

(A) The amount of the financial assurance will equal the difference between the amount of projected system revenues and the projected cash needs for the period of time prescribed by the executive director.

(B) The form of the financial assurance will be as specified in Chapter 37, Subchapter O of this title and will be as specified by the executive director.

(C) If the executive director relies on rate increases or customer surcharges as the form of financial assurance, such funds shall be deposited in an escrow account as specified in Chapter 37, Subchapter O of this title and released only with the approval of the executive director.

(o) Emergency Preparedness Plans for Affected Utilities.

(1) Each public water system that is also an affected utility and that exists as of November 1, 2011 is required to adopt and submit to the executive director an emergency preparedness plan in accordance with §290.45 of this title and using the template in Appendix G of §290.47 of this title or another emergency preparedness plan that meets the requirements of this subchapter no later than February 1, 2012. Emergency preparedness plans are required to be prepared under the direction of a licensed professional engineer

when an affected utility has been granted or is requesting an alternative capacity requirement in accordance with §290.45(g) of this title, or is requesting to meet the requirements of TWC, §13.1395, as an alternative to any rule requiring elevated storage, or as determined by the executive director on a case-by-case basis.

(2) Each affected utility that supplies, provides, or conveys surface water to wholesale customers shall include in its emergency preparedness plan under this subsection provisions for the actual installation and maintenance of automatically starting auxiliary generators or distributive generation facilities for each raw water intake pump station, water treatment plant, pump station, and pressure facility necessary to provide water to its wholesale customers.

(3) The executive director shall review an emergency preparedness plan submitted under this subsection. If the executive director determines that the plan is not acceptable, the executive director shall recommend changes to the plan. The executive director must make its recommendations on or before the 90th day after the executive director receives the plan. In accordance with the commission rules, an emergency preparedness plan must include one of the options listed in §290.45(h)(1)(A) - (H) of this title.

(4) Not later than June 1, 2012, each affected utility shall implement the emergency preparedness plan approved by the executive director.

(5) An affected utility may file with the executive director a written request for an extension not to exceed 90 days, of the date by which the affected utility is required under this subsection to submit the affected utility's emergency preparedness plan or of the date by which the affected utility is required under this subsection to implement the affected utility's emergency preparedness plan. The executive director may approve the requested extension for good cause shown.

(6) The executive director may grant a waiver of the requirements for emergency preparedness plans to an affected utility if the executive director determines that compliance with this section will cause a significant financial burden on customers of the affected utility. The affected utility shall submit financial, managerial, and technical information as requested by the executive director to demonstrate the financial burden.