

290 citations for Emergency Preparedness Plans: 290 Subchapter D

DEFINITIONS

290.38 (1) - Affected utility--A retail public utility (§291.3 of this title (relating to Definitions of Terms)), exempt utility (§291.3 of this title), 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 400,000 or more adjacent to a county with a population of 3.3 million or more.

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

290.38 (27) - Extended power outage--a power outage lasting for more than 24 hours

GENERAL REQUIREMENTS

290.39 (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), Chapter 13, Subchapter E, §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.

290.39 (c)(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(1) 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 J 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 that is 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.

290.39 (o)- Emergency Preparedness Plans for Affected Utilities.

(1) Each public water system that is also an affected utility and that exists as of December 1, 2009 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 J of §290.47 of this title or another emergency preparedness plan that meets the requirements of this subchapter no later than March 1, 2010. 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 July 1, 2010, 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.

WATER DISTRIBUTION

290.44(d) -Minimum pressure requirement. The system must be designed to maintain a minimum pressure of 35 psi at all points within the distribution network at flow rates of at least 1.5 gallons per minute per connection. When the system is intended to provide fire fighting capability, it must also be designed to maintain a minimum pressure of 20 psi under combined fire and drinking water flow conditions. The distribution system of public water systems that are also affected utilities must be designed to meet the requirements of §290.45(h) of this title (relating to Minimum Water System Capacity Requirements).

CAPACITY REQUIREMENTS

290.45(a)(7)- If a public water system that is an affected utility fails to provide a minimum of 35 psi throughout the distribution system during emergency operations as soon as it is safe and practicable following the occurrence of a natural disaster, a revised emergency preparedness plan or justification regarding pressure drop shall be submitted for review and approval within 180 days of the date normal power is restored. Based on the review of the revised emergency preparedness plan, the executive director may require additional or alternative auxiliary emergency facilities.

290.45(b)(3)- Any community public water system that is an affected utility shall have an emergency preparedness plan approved by the executive director and must meet the requirements for emergency operations contained in subsection (h) of this section. This

includes any affected utility that provides 100 gallons of elevated storage capacity per connection.

290.45(c)(3)- A noncommunity public water system that is an affected utility shall meet the requirements of subsection (h) of this section.

290.45(d)(4)- A noncommunity public water system that is an affected utility shall meet the requirements of subsection (h) of this section.

290.45(e)(4)- A wholesaler that is an affected utility must meet the requirements specified in subsection (h) of this section.

290.45(g)(5)(A)(iv)- A public water system that is an affected utility must conduct the modeling requirements contained in clauses (i) - (iii) of this subparagraph using the requirements specified in subsection (h) of this section.

290.45(g)(5)(B) Emergency power facilities must be maintained and provided with necessary appurtenances to assure immediate and dependable operation in case of normal power interruption. A public water system that is an affected utility must meet the requirements specified in subsection (h) of this section.

290.45(h)- Affected utilities. This subsection applies to all affected utilities and is in addition to any other requirements pertaining to emergency power requirements found in this subchapter.

(1) Affected utilities must provide one of the following options of sufficient power to meet the capacity requirements of paragraph (1) or (2) of this subsection, whichever is applicable, and in accordance with the affected utility's approved emergency preparedness plan:

(A) The maintenance of automatically starting auxiliary generators;

(B) The sharing of auxiliary generator capacity with one or more affected utilities;

(C) The negotiation of leasing and contracting agreements, including emergency mutual aid agreements with other retail public utilities, exempt utilities, or providers, or conveyors of potable or raw water service, if the agreements provide for coordination with the division of emergency management in the governor's office;

(D) The use of portable generators capable of serving multiple facilities equipped with quick-connect systems;

(E) The use of on-site electrical generation or electrical distributed generation facilities;

(F) Hardening of the electric transmission and electric distribution system against damage from natural disasters during an extended power outage;

(G) For existing facilities, the maintenance of direct engine or right angle drives; or

(H) Any other alternative determined by the executive director to be acceptable.

(2) Each affected utility that supplies, provides, or conveys surface water to wholesale customers shall install and maintain 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) Emergency generators used as part of an approved emergency preparedness plan must be maintained, tested, and operated in accordance with the manufacturer's specifications.

(4) An affected utility may adopt and is encouraged to enforce limitations on water use while the utility is providing emergency operations.

(5) As soon as safe and practicable following the occurrence of a natural disaster, an affected utility must operate in accordance with its approved emergency preparedness plan, which may include using elevated storage. An affected utility may meet the requirements of Texas Water Code, §13.1395, including having a currently approved emergency preparedness plan, in lieu of any other rules regarding elevated storage requirements, provided that, under normal operating conditions, the affected utility continues to meet the pressure requirements of §290.46(r) of this title (relating to Minimum Acceptable Operating Practices for Public Drinking Water Systems) and the production, treatment, total storage and service pump capacity requirements of this subchapter.

(6) An affected utility must maintain on-site, or make readily available during emergency operations, an amount of fuel necessary to operate any required emergency power equipment necessary to maintain emergency operations.

Appendix J: Emergency Preparedness Plan Template

This appendix contains information to assist an affected utility in preparing an emergency preparedness plan. A comprehensive guide and shell form, TCEQ Form No. 20536, for preparing a plan is available from the executive director upon request. A cover letter containing the name of the affected utility and, if applicable, public water system identification number (PWS ID), district number and water certificate of convenience and necessity (CCN) must be included with the plan submittal. Also, the letter must include the affected utility representative's name, title and contact telephone number.

Information provided by an affected utility relating to its emergency preparedness plan is confidential and is not subject to disclosure under Texas Government Code, Chapter 552.

Rules. All of 30 TAC Chapter 291, Subchapter L applies to affected utilities that are not public water systems. The following commission rules apply to affected utilities that are public water systems:

Definitions: §290.38(1), (26), and (28)

General Provisions: §290.39(c)(4)(A)-(E) and (o)(1)-(5)

Water Distribution: §290.44(d)

Minimum Water System Capacity Requirements: §290.45(a)(7), (b)(3), (c)(3), (d)(4), (e)(4), (g)(5)(A)(iv), (g)(5)(B), and (h).

Minimum Acceptable Operating Practices for Public Drinking Water Systems: §290.46(f)(5) and (r).

Appendix J: Emergency Preparedness Plan Template: §290.47(j)

Plan Options

A submitted emergency preparedness plan must include one of the following:

(1) Auxiliary generators equipped with automatic starting generators and switch over equipment. This equipment must have the ability to detect the failure of normal power from the electric grid; automatically start the generator; isolate necessary water equipment from the normal power grid; and switch the running generator's power to power the necessary water equipment to maintain the required minimum pressure.

(2) Two or more affected utilities may propose the sharing of auxiliary generator power. Necessary electrical and/or water connections equipped with automatic switch over and

opening valves must be presented in the plan to demonstrate how one or more affected utilities will be able to maintain the required minimum pressure. Describe which equipment will share the auxiliary generator power and which equipment, if any, would receive power from only a single affected utility's auxiliary power equipment.

(3) Copies of negotiated leasing and contract agreements for emergency power equipment and any necessary fuel. This includes mutual aid agreements with other retail public utilities, exempt utilities, or providers or conveyors of potable or raw water service if the agreements provide for coordination with the division of emergency management in the governor's office. Consideration must be given to the location of where the other water supplier(s) are located as they may also be affected by the same natural disaster. In addition, when entering into a contract for leasing of emergency power equipment and necessary fuel, the contractual commitments of the supplier to other water suppliers and businesses within an area subject to the same natural disaster event must be taken into consideration.

(4) Use of portable generators capable of serving multiple facilities. The portable generator(s) and the necessary water equipment must be pre-equipped with quick-connect, mating electrical connectors to facilitate the rapid implementation of the emergency preparedness plan. The plan must address whether there is an adequate number of portable generators to operate all of the necessary water equipment in order to maintain the required minimum pressure in multiple pressure plans or at multiple systems, if affected by the same natural disaster event.

(5) In lieu of generators, alternative on-site electrical generation, or distributed electrical generation facilities, may be used. This may include the use of wind, solar or other power as a means of providing sufficient emergency power to operate the necessary water equipment to maintain the required minimum pressure.

(6) Hardening of the electric transmission and distribution system serving the affected utility. One alternative is to relocate electric transmission lines for the system from overhead to underground and protect them from flooding. Another alternative is to replace overhead transmission lines, poles, and related appurtenances with ones that can withstand historical hurricane-force wind velocities, and trim or remove any trees next to and above the overhead transmission lines. Either alternative must include documentation on the ability of applicable power plant(s) and station(s) to withstand hurricane-force winds.

(7) Engines equipped with direct or right angle drives can be used as auxiliary power sources. Each pump or other equipment must be equipped with appropriate mechanical fittings to facilitate the use of engines. The plan must address the operation of chemical feed pumps using a generator(s).

(8) Any other alternative determined by the executive director to be acceptable.

Plan Contents

An emergency preparedness plan must provide for any applicable production, treatment, transfer and service pumps at an adequate flow rate and at a minimum pressure of 35 psi in the far reaches of an affected distribution system, including multiple pressure planes. If applicable, provide the following information:

- Contact information, including names, emergency telephone and pager numbers, and email addresses.
- List all ground, surface, and purchased water sources, with locations and individual capacities.
- List all interconnections with other water providers; whether normally open or closed; size; whether wholesale, purchase, or both; available capacity; and any other pertinent information. Include the names of each interconnection and their contact information, including names, titles, telephone and pager numbers, and email addresses.
- List the capacity and power requirements of all treatment equipment.
- For each chemical, list the type of storage, volume, and volume required per day during emergency operations.
- Provide a copy of all water distribution and transmission piping maps.
- Provide the maximum and average daily demands. If the emergency preparedness plan is for a proposed affected utility, the minimum specified capacities in §290.45 of this subchapter shall be used for the maximum daily demand.
- List all primary electrical power sources.
- List all equipment necessary to provide water to customers at the required minimum pressure and adequate flow rate, and the power requirements for each piece of equipment.
- List the size, location and fuel requirement in gallons per hour at the load necessary to maintain emergency operations for all on-site manual and automatic auxiliary power equipment, and provide information as to how the affected utility determined the necessary fuel quantity.
- Provide documentation as to how the affected utility will ensure that it maintains an adequate supply of fuel during emergency operations.
- List the size, location, fuel requirement in gallons per hour at the load necessary to maintain emergency operations, and the name of the system sharing the equipment for all shared auxiliary power equipment. Include the other system's contact persons with their emergency telephone and pager numbers and email addresses.

- Provide a copy of any leasing and contracting agreements, including mutual aid agreements with other retail public utilities, exempt utilities, or providers or conveyors of potable or raw water service, if the agreements provide for coordination with the division of emergency management in the governor's office. If leasing, include the vendor's name, location, and contact information.
- List all portable generators' power, phase, type of quick-connect, fuel type, and fuel demand in gallons per hour.
- Provide specifications, a description, and detailed capacity information for all on-site electrical generation or distributive generation equipment. Include all fuel demands for this equipment.
- List all direct or right angle drive emergency power equipment with the name, type of engine, fuel type, and fuel demand in gallons per hour.
- Provide details for any other proposed alternative.
- For each fuel tank, provide the location, volume, name of fuel suppliers, contact names, titles, telephone and pager numbers, and email addresses.
- List all local and state emergency responders and their emergency contact telephone and pager numbers. Include medical facilities.
- List all priority water users, such as hospitals and nursing homes, and their emergency contact names, titles, telephone and pager numbers, and email addresses.
- List any bulk water haulers that could be used, including contact names, telephone and pager numbers, and email addresses.
- Provide the system's designated media spokesperson with a list of local media contact names, titles, type of media, telephone and pager numbers, and email addresses.
- Provide the water restrictions that the system will implement during an emergency response.
- Provide a proposed time frame for full implementation of the emergency preparedness plan.

291 citations for Emergency Preparedness Plans: 291 Subchapter L

PURPOSE

291.160 - Texas Water Code, Chapter 13, Subchapter E, §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. This subchapter sets forth requirements and implementation of emergency operation planning of affected utilities as defined in this subchapter. Public water systems must comply with the emergency operations requirements as defined in Chapter 290, Subchapter D of this title (relating to Rules and Regulations for Public Water Systems).

DEFINITION

291.161 - For the purposes of this subchapter, the following definitions apply.

(1) Affected utility--Any retail public utility, exempt utility, 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 400,000 or more adjacent to a county with a population of 3.3 million or more.

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

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

(4) Population--The population shown by the most recent federal decennial census.

REQUIREMENTS

291.162-(a) An affected utility shall adopt and submit to the executive director for its approval an emergency preparedness plan that demonstrates the utility's ability to provide emergency operations.

(b) The executive director shall review an emergency preparedness plan submitted by an affected utility. 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.

(c) An emergency preparedness plan shall provide for one of the following:

(1) the maintenance of automatically starting auxiliary generators;

(2) the sharing of auxiliary generator capacity with one or more affected utilities;

(3) the negotiation of leasing and contracting agreements, including emergency mutual aid agreements with other retail public utilities, exempt utilities, or providers or conveyors of potable or raw water service, if the agreements provide for coordination with the division of emergency management in the governor's office;

(4) the use of portable generators capable of serving multiple facilities equipped with quick-connect systems;

(5) the use of on-site electrical generation or distributed generation facilities;

(6) hardening the electric transmission and distribution system serving the water system;

(7) for existing facilities, the maintenance of direct engine or right angle drives; or

(8) any other alternative determined by the executive director to be acceptable.

(d) Each affected utility that supplies, provides, or conveys surface water to wholesale customers shall include in its emergency preparedness plan 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.

(e) The affected utility may use the template in Appendix J of §290.47 of this title (relating to Appendices) to assist in preparation of the plan.

(f) An emergency generator used as part of an approved emergency preparedness plan must be operated and maintained according to the manufacturer's specifications.

(g) The executive director may grant a waiver of the requirements of this section 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.

(h) An affected utility may adopt and is encouraged to enforce limitations on water use while the utility is providing emergency operations.

(i) Information provided by an affected utility under this subchapter is confidential and is not subject to disclosure under Texas Government Code, Chapter 552.

(j) Affected utilities that are existing as of December 1, 2009, shall submit the emergency preparedness plan to the executive director no later than March 1, 2010.

(k) Affected utilities which are established after the effective date of this rule must have emergency preparedness plans approved and implemented prior to providing water to customers.

(l) 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 subchapter to submit the affected utility's emergency preparedness plan or the date the affected utility is required to implement the plan.

(m) If an affected utility fails to provide a minimum of 35 pounds per square inch throughout the distribution system during emergency operations as soon as it is safe and practicable following the occurrence of a natural disaster, a revised emergency

preparedness plan shall be submitted for review and approval within 180 days of the date normal power is restored. Based on the review of the revised emergency preparedness plan, the executive director may require additional or alternative auxiliary emergency facilities.