

# Texas Commission on Environmental Quality

## Interoffice Memorandum

**To:** Commissioners **Date:** June 12, 2015

**Thru:** Bridget C. Bohac, Chief Clerk  
Richard A. Hyde, P.E., Executive Director

**From:** L'Oreal W. Stepney, P.E., Deputy Director  
Office of Water

**Docket No.:** 2014-0615-RUL

**Subject:** Commission Approval for Rulemaking Adoption  
Chapter 290, Public Drinking Water  
HB 1600, §2.96, and SB 567, §§1, 4, 95, and 96; Federal Revisions; and  
Staff-Initiated Rule Efficiencies  
Rule Project No. 2013-046-290-OW

### **Background and reason(s) for the rulemaking:**

This rulemaking adopts changes to Chapter 290:

- for consistency with Texas Water Code (TWC), §12.013 and Chapter 13, as amended during the 83rd Legislature, 2013, by §2.96 of House Bill (HB) 1600, authored by Representative Byron Cook, and §§1, 4, 95, and 96 of Senate Bill (SB) 567, sponsored by Senators Kirk Watson and Robert Nichols, related to transfer of the utilities and rates program to the Public Utility Commission of Texas (PUC);
- to implement federal changes to the lead and *Escherichia Coli* (*E. coli*) thresholds; and
- to provide clarification on and streamlining of existing rules, including:
  - desalination;
  - chloramination;
  - plan review submittal process;
  - enforceability of exceptions; and
  - other drinking water matters.

### **Scope of the rulemaking:**

#### **A.) Summary of what the rulemaking will do:**

*State statutes* – HB 1600 and SB 567 amended TWC, §12.013 and Chapter 13, transferring the utilities and rates program from the Texas Commission on Environmental Quality (TCEQ) to the PUC, effective September 1, 2014. This rulemaking removes a requirement for the submission of Certificate of Public Convenience and Necessity (CCN) information in existing §290.39(j)(3) as the TCEQ no longer has jurisdiction over CCNs. The majority of the rule changes to implement HB 1600 and SB 567 will occur under Rule Project No. 2013-057-291-OW.

#### *Federal regulations*

*Reduction of Lead in Drinking Water Act* – The federal requirement for lead content of pipes, pipe fittings, and plumbing fittings and fixtures was reduced from 8.0% to 0.25%, effective January 4, 2014, as announced in 2011 to allow time for manufacturers to change their products. TCEQ's public drinking water rules only apply to public water systems

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(PWSs) and include allowable lead content requirements that must be revised to maintain consistency with applicable federal law. PWSs will now need to procure plumbing fixtures that comply with the allowable lead level, but because the federal act applies to all manufacturers, there should only be products that meet the criteria on the market.

*E. coli Threshold* – The federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2) required PWSs with surface water, or groundwater under the influence of surface water, sources to monitor for *Cryptosporidium*. The United States Environmental Protection Agency (EPA) gave states the discretion to allow small PWSs — those with a population less than 10,000 — to monitor for *E. coli* instead. The TCEQ adopted the alternate monitoring process and established an *E. coli* trigger level of 50 *E. coli*/100 milliliters or 10 *E. coli*/100 milliliters based on the water source. Subsequent federal guidance established an *E. coli* trigger level of 100 *E. coli*/100 milliliters, no matter the water's source. By raising the TCEQ's *E. coli* trigger level, fewer small PWSs have monitored for *Cryptosporidium* because the higher level is more commonly achieved.

*Additional staff recommendations* – The staff-initiated changes to Chapter 290 are necessary to formalize existing procedures into the rules, while also clarifying requirements and streamlining existing agency practices. The items that will formalize existing procedures include: adding the requirements of existing well design standards to the rule, and changing the tank design requirements to clarify tank types. To clarify the rules, the TCEQ adopts additional criteria to help PWSs find all of the criteria within a rule while also incorporating the necessary elements into the design, rather than adding the criteria at a later date. To ensure consistency in the pipe encasement design, the TCEQ's water and wastewater requirements for water distribution pipe crossings will be expanded to include other subsections of the rule. The remainder of the adopted staff-initiated changes streamlines existing practices on: the process for submitting plans; TCEQ's ability to cite a violation for failure to comply with a condition of a granted exception; allowing the use of chloramines without an exception; allowing the use of desalination technology without an exception; and adding additional options for overflow pipe outlets without an exception.

**B.) Scope required by federal regulations or state statutes:**

*State statutes* – This adopted rulemaking implements HB 1600 and SB 567 by removing a requirement in existing §290.39(j)(3) as the TCEQ no longer has jurisdiction over CCNs.

*Federal regulations*

*Reduction of Lead in Drinking Water Act* – This adopted rulemaking amends §§290.41, 290.44, 290.46, and 290.47 for consistency with the federal reduction in the lead content of pipes, pipe fittings, and plumbing fittings and fixtures from 8.0% to 0.25%.

*E. coli Threshold* – The TCEQ has been applying the revised *E. coli* trigger level since it was released by the EPA in 2010. This adopted rulemaking amends §290.111 to be consistent

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with federal guidance and continue providing additional monitoring cost savings to small PWSs.

C.) Additional staff recommendations that are not required by federal rule or state statute: *Process for Approving Desalination Technology* – This adopted rulemaking amends §§290.38, 290.39, 290.42, 290.45, and 290.46 to allow the use of desalination technologies for chemical removal without an exception request, which has been required when approving the use of innovative/alternate treatment technologies. The use of reverse osmosis membranes and other desalination technologies for water treatment has been in use for decades. Over 15,000 desalination plants were in use worldwide in 2002. Following extensive input from the regulated community and interested stakeholders, this adopted rulemaking establishes design, operation, maintenance, monitoring, and reporting standards.

*Chloramine Disinfection Criteria* – As the use of chloramines has become a common practice among PWSs, this adopted rulemaking amends §§290.39, 290.41 - 290.43, 290.46, 290.47, 290.110, 290.111, and 290.116 to allow the use of chloramines without requiring an exception review by including the design, operation, maintenance, monitoring, and documentation criteria within the rules to simplify the process for the TCEQ and PWSs. In the proposal, the executive director's staff sought public comment on the placement of sample taps in relation to chloramine chemical injection. Written comments were received and have been addressed in the Response to Comments section of the rulemaking.

*Modification of the Plan Review Submittal Process* – Existing §290.39 instructs PWSs to first notify the TCEQ of significant changes and then submit plans and specifications upon the TCEQ's request. This adopted rulemaking amends §290.39 by: requiring PWSs to submit plans and specifications for significant changes. Simplifying the criteria for a change to be considered significant will reduce confusion in the regulated community and reduce staffs' processing time currently spent issuing requests for the submission of plans and specifications.

*Enforceability of Exceptions* – Under existing §290.39(l)(2), if a PWS does not meet the requirements of a granted exception, the exception can be revoked and a violation subsequently issued in a time-consuming, cumbersome process. To streamline this process and ensure that PWSs follow the conditions established in the granted exception, this adopted rulemaking clarifies that failing to follow the conditions of a granted exception is a violation.

*Clarification for Well Construction Review Process* – This adopted rulemaking amends §290.41 by incorporating language from an existing standard into the rule and providing specific cementing requirements for PWS wells in order to consolidate the requirements in one location, thus making them more accessible to the PWSs.

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*Alternative Appurtenances for Overflow Devices* – The existing rule requires a "gravity-hinged and weighted cover" at the end of the overflow pipe on water storage tanks. Other designs have also proven to be effective in preventing backflow and the entrance of contaminants; however, a PWS has been required to apply for a case-by-case exception to use other devices. This adopted rulemaking amends §290.43, streamlining the process for PWSs to use other devices and reduces staffs' time currently spent reviewing these exception requests.

*Water Storage* – This adopted rulemaking amends §290.43 to remove the sentence referencing American Water Works Association (AWWA) Standard D103. A rule petition which in part raised AWWA Standard D103 as an issue was denied during the April 23, 2013, agenda; at that agenda, staff was directed to consider amending the rule during a subsequent rulemaking.

*Water Distribution Crossings* – During a rule change in 1995, language applicable to waterlines crossing under wastewater lines was added into §290.44 which created potential conflict with the requirement for wastewater lines in 30 TAC §217.53. This adopted rulemaking amends §290.44 for consistency with §217.53 to be protective of public health.

*Appendices* – The amended rule removes three figures, or appendices, in existing §290.47. Based upon the revision of federal law regarding the lead content in pipes, fittings, and fixtures, the commission proposed amending Figure: 30 TAC §290.47(b). During its amendment of Figure: 30 TAC §290.47(b), the commission revisited the other figures in existing §290.47 and proposed the removal of Figures: 30 TAC §290.47(c), (d), and (f) to allow PWSs an editable form that can be modified without retyping the figure.

**Statutory authority:**

TWC, §§5.102, 5.103, 5.105, 12.013 and Chapter 13; and Texas Health and Safety Code, Chapter 341.

**Effect on the:**

**A.) Regulated community:**

The TCEQ regulates approximately 7,000 PWSs, including PWSs owned by units of local, state and federal government, as well as for profit businesses or individually owned PWSs. This rulemaking does not create a new group of affected persons.

*State statutes* – There will be no fiscal impact on the regulated community from the adopted amendment implementing the transfer of the CCN program to the PUC.

*Federal regulations*

*Reduction of Lead in Drinking Water Act* – PWSs with an existing stockpile of plumbing materials that do not meet the 0.25% lead level will not be able to install these materials. The Reduction of Lead in Drinking Water Act was enacted in January 2011, and PWSs were

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given advance notice of the federal change, allowing them the opportunity to use their stockpiled materials. Because of this advance notice, any impact from this adopted rulemaking upon the regulated community is expected to be minimal.

*E. coli Threshold* – There is no impact anticipated upon the regulated community as the TCEQ has followed the federal guidance since its issuance.

*Additional staff recommendations*

*Process for Approving Desalination Technology* – Placing the desalination requirements in the rule may reduce expenses and construction time for PWSs.

*Chloramine Disinfection Criteria* – By allowing the use of chloramines without an exception request, the regulated community can save time and effort currently spent on requesting the exception from the TCEQ.

*Modification of the Plan Review Submittal Process* – The adopted rule will provide a more efficient submittal process for the regulated community and will clarify the criteria constituting a "significant change," which has caused confusion in the past for the regulated community.

*Enforceability of Exceptions* – The adopted rule will allow a PWS to provide the corrective action for a specific violation, instead of reapplying for a revoked exception.

*Clarification for Well Construction Review Process* – By placing the PWS well construction requirements in the rule, PWSs will have one location to find information about well design, thus making the requirements more accessible to the PWSs.

*Alternative Appurtenances for Overflow Devices* – Allowing the use of alternative appurtenances will permit PWSs to use these designs without requesting an exception, which will save such PWSs time and expense.

*Water Storage* – PWSs will be allowed more flexibility when designing water storage tanks by allowing tanks of other materials approved by the AWWA. The adopted rule will also reduce confusion in the regulated community by removing the reference to one specific AWWA Standard, D103.

*Water Distribution Crossings* – This adopted rule will align the TCEQ's water and wastewater requirements for water distribution pipe crossings and provide PWSs with consistency in the TCEQ's applicable rules which will also help PWSs protect public health by ensuring that wastewater lines are not located over waterlines.

*Appendices* – By moving some appendices to forms, the regulated community can save time and effort currently spent on potentially retyping the appendices to customize the forms for PWS use.

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**B.) Public:**

*State statutes* – The adopted amendment will not impact the public.

*Federal regulations* – Any costs or cost avoidance experienced by the PWSs may be passed on to the public. The impact of this adopted rulemaking upon the public is anticipated to be minimal.

*Additional staff recommendations* – Any cost savings experienced by the PWSs are anticipated to be minimal and may be passed on to the public.

**C.) Agency programs:**

*State statutes* – No impact is anticipated from the adopted amendment.

*Federal regulations* – There will be minimal impact to the TCEQ's programs. Staff may receive questions from PWSs about the federal changes.

*Additional staff recommendations* – The staff-initiated rule efficiencies will save TCEQ staff resources by removing, clarifying, and streamlining TCEQ processes, while affording staff the opportunity to concentrate their efforts on other, more complex innovative treatment reviews. There will be minimal impact to the TCEQ's programs. Staff may receive questions from PWSs about the changes.

**Stakeholder meetings:**

On May 9 and June 3, 2014, the TCEQ met with interested stakeholders, including representatives of PWSs, government agencies, design engineers, membrane vendors, and other interested participants, to solicit input on the proposed rule change for approving desalination technology without obtaining an exception as required under existing §290.42(g) in addition to other proposed rule revisions. With the exception of treatment for pathogen control and the treatment of seawater (both of which have unique challenges), the stakeholder process developed a path for PWSs and their design engineers to use rule-based criteria to demonstrate that the desalination process would be effective, reliable and safe. With that goal in mind during the stakeholder meetings, TCEQ staff presented a discussion outline that included plant design, engineering report, capacity requirements, operator licensing, operating records and reports, and instrument calibration. As a result of the stakeholder meetings, TCEQ staff received sufficient feedback supporting the development of the proposed rule for desalination to meet the majority of the regulated community's concerns while remaining protective of public health.

**Public comment:**

The comment period began on February 6, 2015, and closed on March 10, 2015. A public hearing was held on February 26, 2015, in Austin, Texas, and no oral testimony occurred. The commission received timely written comments from the South Central Membrane

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Association with the support of the American Membrane Technology Association and two individuals.

The comments focused on the reverse osmosis and nanofiltration requirements and the chloramination requirements. The comments on reverse osmosis and nanofiltration included questions on: a reverse osmosis and nanofiltration definition; the water sources that may be treated by reverse osmosis and nanofiltration; when a plan review and a baseline study is required; the location of conductivity samples; the use of historical classes for training requirements; the maintenance of records; when a module must be replaced; and, the calibration interval for instruments. The comments on chloramination included questions on: when a nitrification action plan is required; where the nitrification action plan samples can be taken; disinfection sample collection; mixing requirements, drain requirements; sample accuracy limits; and, color comparators. The comments have been summarized in the Response to Comments section of the preamble.

**Significant changes from proposal:**

None, though in response to comment, some proposed rules were revised.

**Potential controversial concerns and legislative interest:**

The legislature, interested stakeholders, and the regulated community continue to express interest in using desalination to treat water and produce a new drinking water source without undertaking an exception process.

**Does this rulemaking affect any current policies or require development of new policies?**

This adopted rulemaking merely formalizes existing policies into Chapter 290; no additional policies are planned for development.

*State statutes* – Without approval, Chapter 290 will be inconsistent with existing state statutes. If not adopted within this rulemaking, the removal of a requirement in existing §290.39(j)(3) related to CCNs could be addressed in Rule Project No. 2013-057-291-OW.

*Federal regulations* – The TCEQ could attempt to implement both federal changes, lead content and LT2 sampling, directly from the federal law or guidance. However, TCEQ investigators are authorized to enforce state law, not federal, and the state rules governing lead content without amendment would be inconsistent with and less stringent than the federal law.

*Additional staff recommendations* – Instead of adopting design, operation, maintenance, and recordkeeping rules, the TCEQ could continue requiring the submission of exception requests which can be supported by computer models instead of physical studies for desalination that meets primary drinking water standards.

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**Key points in the adoption rulemaking schedule:**

<b><i>Texas Register</i> proposal publication date:</b>	February 6, 2015
<b>Anticipated <i>Texas Register</i> adoption publication date:</b>	July 17, 2015
<b>Anticipated effective date:</b>	July 23, 2015
<b>Six-month <i>Texas Register</i> filing deadline:</b>	August 6, 2015

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**Attachments**

HB 1600, §2.96

SB 567, §§1, 4, 95, and 96

Federal Regulations for Lead and *E. coli*

EPA's *Summary of the Reduction of Lead in Drinking Water Act*, located at:

<http://water.epa.gov/drink/info/lead/upload/epa815s13003.pdf>

cc: Chief Clerk, 2 copies  
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