

Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

December 2, 2009

Meeting Summary

Welcome and Introductions

Announcements

- Two new regulatory guidance documents have been published:
 - RG-476: A Public Water System Guide to Responding to a Backflow Incident; available online at:
http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/rg/rg-476.html
 - RG-477: A Public Water System Guide to Preparing a Backflow Incident Emergency-Response Plan; available online at:
http://www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/rg/rg-477.html
- Staff in the TCEQ Landscape Irrigation Program have determined that per 30 TAC 344.50(a), private potable water supplies (e.g. private wells) are subject to the backflow prevention requirements for landscape irrigation systems found in Chapter 344.
- The Cross-Connection Control Subcommittee will meet on the following dates in 2010:
 - Wednesday, March 3
 - Wednesday, June 2
 - Wednesday, September 1
 - Wednesday, December 1
- Amy Rivera will facilitate the March 3, 2010 meeting. Suggestions for agenda topics should be directed to her at (512) 239-1407 or arivera@tceq.state.tx.us.

Adoption of minutes from meeting held September 2, 2009

Minutes were adopted without discussion.

Update on Cross-Connection Control Rule Petitions

Elston Johnson, TCEQ Public Drinking Water Section Manager, announced that the Executive Director was recommending denial of the proposals in the rule petitions prepared by a subgroup of the subcommittee. Three petitions were presented to the Commission on October 20, 2009. The petitions proposed the following changes to the Chapter 290 regulations:

The petition concerning reporting of backflow incidents

1. Require public water systems to report all confirmed backflow incidents to the Commission.
2. Clarify language found in §290.46(j)(2) that authorizes public water systems to terminate a customer's water service based on the presence of a health hazard(s) at the customer's residence/facility.

The petition concerning recognition as a superior or approved public water system

1. Add a requirement to the existing criteria for the "Superior Public Water System" designation found in §290.47(a)(1). The new criterion would require a public water system to have an approved backflow prevention program in order to be eligible to be recognized as a "Superior Public Water System."

The petition concerning sample service agreement

1. Require all public water systems to adopt a customer service agreement and a state-approved plumbing code or regulations.
2. Define the term "customer" in the Sample Service Agreement found in §290.47(b) to extend the authority of the agreement to apply to all customers of a public water system.

The rule petitions will be considered by the Commissioners at the December 9, 2009 Commissioner's Agenda meeting.

Discussion of Proposed CSI/BPAT Safety Courses

Linda Saladino, TCEQ Operator Licensing Section, led a discussion of which objectives, or tasks, should be included in proposed continuing education (CE) safety courses for BPATs and for CSIs. Subcommittee members were asked to comment on the following:

- Are the tasks in the correct order (displayed most critical to least critical)?
- Were any tasks missing?

- Should some tasks be eliminated?
- How do some of the tasks relate to BPAT and CSI licensed activities today since the analysis was performed in 2004?
- How should the task be presented in a training course?

It was noted that most of the safety tasks, including entering confined spaces, were listed in the bottom 10% of the critical task list. This position and scoring reflects the relative importance the topic should have in any training course. Several of the safety related tasks were then discussed in detail, including confined space entry, lock-out or tag-out (LOTO) of equipment, and maintaining Material Safety Data Sheet records. In most cases the CSI or BPAT will not enter confined spaces, use a flag to direct traffic, use an atmospheric monitoring device, or report a spill or release. Meeting participants felt that training on the majority of these subjects should be on an “awareness level” only and that training materials should provide examples of when a CSI or BPAT would be in situations performing critical job tasks while experiencing the safety hazard.

Presentation on Fire Hydrant Safety/Protection of Potable Water Distribution Systems

Todd Warren, Dixie Utility Supply, gave a presentation on protection of potable water distribution systems. Specifically, Mr. Warren stated that many national organizations recognize that fire hydrants are the most visible and vulnerable component of potable water distribution systems. There are a variety of approaches to protecting fire hydrants from possible intentional/unintentional contamination.

A general discussion of fire hydrant protection methods followed. Topics covered include pressure loss in the hydrant as the result of installation of a check valve, cost of protection methods, operation and maintenance of devices used to protect hydrants, and cities which have already initiated a fire hydrant protection program.

The TCEQ does not endorse a particular manufacturer of backflow prevention devices for fire hydrant protection.

Reinspection of Facilities with Internal CCC Programs

Fred Baird, Bac-Flo Unlimited, spoke about the lack of a TCEQ regulation to require reinspection of facilities where the water provider has waived the requirement for premises isolation due to the presence of an adequate internal cross-connection control (CCC) program. While internal CCC programs ensure the greatest number of people are protected (by protecting the distribution system AND the people drinking water at the facility in question), changes made to the internal plumbing system can compromise the effectiveness of an internal program. For this reason, water providers should require a periodic reinspection of facilities where an internal CCC program is in place.

TCEQ staff will add information to an existing draft regulatory guidance document to address this topic. The following members of the subcommittee volunteered to review the draft language: Fred Baird, Bruce Rathburn (San Antonio Water System), Byron Hardin (Hardin & Associates Consulting, LLC), Robert Stricker (City of Cibolo), Steve Fain (Cross-Connection Control Institute), and Larry Bell (Texas Rural Water Association).

Assembly Certification: Industry Most-Stringent Standards

Sean Perry, Apollo Valves/Conbraco Industries, gave a presentation on the certification process for backflow prevention assemblies. Currently, the following organizations have a backflow prevention assembly certification process: American Society of Sanitary Engineering (ASSE), University of Southern California (USC), Underwriters Laboratories (UL), Factory Mutual (FM), American Water Works Association (AWWA), and the Canadian Standards Association (CSA). Typically, every backflow prevention assembly is certified by multiple organizations. This is done because different jurisdictions require different certifications. Multiple certifications are redundant, costly, and time-consuming.

An initiative is underway to standardize the certification process by creating one “industry most stringent” standard. This proposed standard would allow backflow prevention assembly manufacturers to utilize their own certified labs with independent third-party observation. The proposed standard would also establish differing water quality and field condition test locations.

A general discussion followed Mr. Perry’s presentation. Concerns were raised regarding the credibility of the proposed standard if manufacturers test the assemblies in their own labs.

Presentation on Fire Safety during the Holiday Season

Mark Redlitz, Texas Fire Marshal’s Office, gave a brief presentation on fire safety during the holiday season.

Installation of DCVAs and Wye Strainers Below Ground

Mike Aldrup, AAA Backflow Assembly Testing, raised awareness of issues with double check valve assemblies and wye strainers that are installed below grade in vaults. He noted that in many cases it would be beneficial to raise the assembly and strainer at least four inches in order to remove it from unsanitary conditions. The subcommittee agreed that while this is an issue, it may be best addressed by the water purveyor. One possible solution would be for testers to note any issues with assemblies that they find in the ‘remarks’ section of the Backflow Prevention Assembly Test and Maintenance (T&M) Report so that the water purveyor can address the issue on a case-by-case basis.

Rainwater Harvesting Systems- Licensing Requirements

Mr. John Kight, Texas Rainwater Catchment Association, raised the question of what licenses are required for each stage in rainwater harvesting system installations. The Texas Agrilife Extension is creating a two day course to accredit rainwater harvesting system installers. The American Rainwater Catchment Systems Association also has an accreditation course for rainwater harvesting system installers. Subcommittee members from both organizations asked that the subcommittee draft a document to clarify which licenses are required for installation of a rainwater harvesting system (including tying it into make-up water sources, irrigation systems, non-potable fixtures, etc.). Joel Klumpp, TCEQ, Lisa Hill, Texas State Board of Plumbing Examiners (TSBPE), Steve Fain, and John Kight agreed to contribute to the drafting of this document and to create a flow chart visual aid. The document will confirm and clarify the following statements that were made at the meeting: Ms. Hill commented that for any connection of a rainwater harvesting system to the plumbing inside the house, a plumbing license is needed. Mr. Aldrup noted that for any connection of a rainwater harvesting system to an irrigation system, an irrigator's license is required. The question remains as to what license is necessary to install a water treatment system (i.e. water softener or filtration system) to treat rainwater. Byron Hardin, Hardin and Associates, questioned whether the subcommittee is the proper forum for discussion of this topic. It was generally agreed that the subcommittee members represent all relevant groups, however, there was no consensus regarding whether the subcommittee should develop guidelines for rainwater harvesting in Texas.

Other Issues:

Backflow Protection at Tattoo Parlors

General discussion ensued regarding the backflow protection required at tattoo parlors. It was determined that the most likely equipment which would present a health hazard is an autoclave, which should be inspected to guarantee that it has internal backflow protection.

Backflow Protection for Domestic Heating Equipment

General discussion regarding TCEQ's requirement in Appendix I (30 TAC 290.47(i)) which requires a double-check valve backflow prevention assembly on domestic heating equipment. While domestic hot water heaters do not require backflow protection, hot water circulation systems may require backflow protection. These should be reviewed on a case-by-case basis. Solar water heaters with a median that circulates into the tank by means of a heat-exchanger require the heat-exchanger to be double-walled.

Written Policy Statement for Freeze-flow Hydrants

General discussion regarding how to document discussions and decisions at subcommittee meetings. The consensus of the group was to continue to rely on the meeting summary to document meeting content.