

Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

June 3, 2015

Meeting Summary

Commencement

Mr. Simon Arends, TCEQ Cross-Connection Control Program, introduced himself as the new Program Coordinator to TCEQ's Cross Connection Control Program while Mr. Al Fuentes will continue to have oversight over the program.

The members of the subcommittee each introduced themselves.

A motion was made to adopt the meeting summary from the previous meeting. No objections were raised and a second motion was made. The vote to adopt was unanimous.

HB 1902

Mr. Fred Baird

Mr. Fred Baird, Bac-Flo Unlimited, Inc., provided a brief update on current legislature which could affect Cross-Connection Control and Backflow Prevention. Mr. Baird discussed:

House Bill 1902 – permits the use of greywater for the use of irrigation and toilet flushing among other uses.

Mr. Baird described real-world examples such as a system in Houston that uses a dual line system to catch greywater for reuse. There are current plumbing codes that require reclaimed greywater to be chlorinated to eliminate pathogens and dyed to make identification easier and less likely to accidentally contaminate the potable water supply at that site.

Chemical Additives and Hose Bibbs

Mr. Fred Baird

Mr. Baird also led the discussion on chemical additives and hose bibbs. There are several commercial products in the market today that have the potential to contaminate the potable water supply by means of direct attachments to a potable water-line, such as a garden hose or to the actual hose bibb itself. These attachments contain chemical additives with purposes that range from herbicides to insecticides to fertilizing plants. Some of these products will come with a Hose Bibb Vacuum Breaker (HBVB) in an attempt to provide backflow prevention, however the HBVB does not provide sufficient protection against backpressure. Therefore, it is still plausible for a backflow event to occur which will introduce these chemicals into the plumbing on site, especially if these products are left attached for long periods of time. For example, quality complaints have been encountered due to thermal expansion of garden hoses allowing "hose water" to enter the internal plumbing system. Current backflow prevention included with household injection systems does not prevent backflow when these systems are under constant pressure.

One of the ideas discussed was to approach national organizations such as the American Backflow Prevention Association (ABPA) for their assistance.

PWS Responsibility of Unaccounted Assemblies

Mr. Doug Goodwin

There are instances in which backflow prevention assemblies are discovered during customer service inspections (CSI). Mr. Doug Goodwin, VEPO, led the discussion on the responsibility of a public water system once these unaccounted assemblies are discovered. Often, an entity which installs a piece of water using equipment may also install a backflow prevention assembly on the supply line to that piece of equipment without alerting the public

water system. As stated previously, these are then discovered during a CSI. TCEQ regulations stipulate that a public water system (PWS) conduct or require to have conducted a customer service inspection for new construction, after any material improvement, correction, or addition to the private water distribution facilities, or when the PWS has reason to believe that there is a possible contamination hazard on site. Typically the CSI would then account for all assemblies and cross-connections on the premises. The CSI would also show if there are any health hazards on site which would require the annual testing of the backflow prevention assembly by a certified backflow prevention assembly tester (BPAT). This is specified in the following regulation:

§290.46(j) Customer service inspections. A customer service inspection certificate shall be completed prior to providing continuous water service to new construction, on any existing service either when the water purveyor has reason to believe that cross-connections or other potential contaminant hazards exist, or after any material improvement, correction, or addition to the private water distribution facilities. Any customer service inspection certificate form which varies from the format found in §290.47(d) of this title must be approved by the executive director prior to being placed in use.

Mr. Goodwin discussed a couple of issues with unaccounted assemblies. First, there is a lack of understanding of the proper actions and responsibility of the PWS with newly discovered assemblies. Many PWSs are not aware of the need to protect the people within a facility. For example, a shopping center with several large businesses protected by one assembly accounted for at the meter of the shopping center still has the potential to contaminate the potable water supply within that shopping center. Education of hazards posed to the people on the other side of the meter when the backflow prevention assembly is installed at the meter will greatly help in protecting the public health. Another challenge posed are those PWSs that do not track assemblies due to lack of financial or staff resources.

Backflow Prevention Assembly (BPA) Protection

Mr. Fred Baird

Mr. Fred Baird led the discussion on protection of BPAs. The lack of protection on backflow prevention assemblies leaves them vulnerable to theft, tampering, and the weather. TCEQ regulations do not address protection of assemblies. However, if the public water system chooses, it may address this issue in the local rules.

If a device is at risk of being stolen or being damaged due to the outside elements, and it is on a site that presents and health hazard, then the PWS should work with the entity at that site to protect the backflow preventer.

Fire Suppression System Maintenance

Mr. Simon Arends

The presenter for this topic was not available to attend and provide information on the is topic. Mr. Simon Arends clarified that this topic had to do with repair of water lines which entailed depressurization of the line and what effect that had on fire suppression systems. Issues such as creating an “air lock” on the fire suppression system when the supply line was repressurized or the hazard posed by the stagnant water in the fire suppression system were briefly discussed.

USC Cross-Connection Control Program Specialist Course

Mr. Simon Arends

TCEQ hosted the University of Southern California’s Foundation for Cross-Connection Control course titled Cross-Connection Control Program Specialist Course on the week of April 20th. The course was a week long and included a substantial amount of useful information for starting and maintaining a cross-connection control program. The course included a site visit to Austin’s Surface Water Treatment Plant No. 4 where we performed a practice customer service inspection. The course also awarded 12 Continuing Education Units (CEU) to CSI, water operators, landscape irrigators, and water treatment specialists that completed the course and passed the course’s final exam. This course also awarded 32 hours of CEUs to BPATs who successfully completed the course for licensing requirements.

Regulatory Guidance (RG) Document 478, RG-206, and New Rule Package Update

Mr. Kenneth Dykes

In regards to RG-206 A *Public Water System Guide to Customer Service Inspections*, Mr. Kenneth Dykes discussed how licensed customer service inspectors, plumbing inspectors, and water supply protection specialists are the only individuals that can make a hazard determination and someone like a licensed irrigator cannot. This is especially important when installing an irrigation system.

In accordance with rule §290.46(j) ... *the customer service inspector shall report any violations immediately to the local entity's plumbing inspection department*. If the CSI identifies a hazard then it is imperative that the building/plumbing inspection department and/or the water utility address it.

RG-478, *Establishing and Managing an Effective Cross-Connection Control Program*, is currently in review and did not have any updates.

The new TCEQ rule package will take effect July 30. The new rules are part of the “Desal Rule Package.” In regards to Cross-Connection Control, the new rule package will lower the amount of allowable lead in plumbing from 8% to 0.25% to be in line with the EPA requirements. As a result, the fourth option in the compliance and non-compliance section of the approved TCEQ Customer Service Inspection Certification form found in §290.47(d) Appendix D will be updated to reflect this. Below is what option 4 on the new form will look like:

“No pipe or pipe fitting which contains more than 0.25% lead exists in private water distribution facilities installed on or after January 4, 2014.”

Labeling of Non-Potable Gauges

Mr. Bill Hamrick

At our previous meeting from March 3, 2015, Mr. Fred Baird led a similar conversation on testing backflow prevention assemblies (BPA) on lines carrying non-potable water. The following is an excerpt from that meeting summary:

The issue was the contamination hazard posed by using test gauges on a BPA installed on a potable water line which were previously used on a BPA installed on a non-potable water line. The test gauges may contain pathogens from the water in the BPA on the non-potable water line which would then be transferred to the BPA on the potable water line. It is important to note that if pathogens are introduced into the potable water supply, they could proliferate, either in the plumbing or when ingested, and result in disease. A confusing factor arises when the BPA is supplied by potable water, but then that same line supplies water for non-potable use. Typically, if the water is non-potable or for non-potable use, the pipe must be color-coded purple.

Mr. Bill Hamrick led a discussion at this meeting about the wording on the labels of non-potable water gauges. Mr. Hamrick suggested using the phrase, “Use only for non-potable supplied assemblies,” instead of using the phrase, “Non-Potable In.” It is important to clearly label these gauges as to prevent confusion and accidentally mixing use the gauges for a non-potable water line on a potable water line.

Mr. Troy Baird led the discussion about the American Backflow Prevention Association's (ABPA) 31st annual meeting, which took place May 18-20, 2015 in Nashville, Tennessee. Some of the highlights presented are outlined below:

- Some states (i.e. Nevada, Utah) are requiring facilities doing legionella treatment to be regulated as public water systems.
- ASHRAE (formerly the American Society of Heating, Refrigeration, and Air Conditioning Engineers) Standard 188P relating to prevention of Legionellosis will be requiring inspections of cooling towers, evaporator/condensers, misters, and other water containing units. This may lead to a higher demand for proper backflow prevention assemblies to be installed on any potential sources of contamination.
- Most municipalities in the nation do not require specific types of security protection of backflow prevention assemblies. However, some do require a manufactured cover or enclosure on an exposed device.

Ms. Linda Saladino gave a brief update on TCEQ's Backflow Prevention Assembly Tester (BPAT) Licensing Exam and the Customer Service Inspector (CSI) Licensing Exam. Proctor requirements for the practical exam were discussed. The written exam will consist of 100 questions in 9 categories. The categories that will comprise the bulk of the exam are Cross-Connection Control (15 questions) and Testing and Troubleshooting (45 questions). The length of time to be allowed for administration of the BPAT written exam will be 3 hours.