

# Texas Commission on Environmental Quality

## Cross-Connection Control Subcommittee

### March 4, 2015

#### Meeting Summary

##### Commencement

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Mr. Al Fuentes, TCEQ Cross-Connection Control Program, introduced Mr. Simon Arends as the new assistant to TCEQ's Cross Connection Control Program.

The members of the subcommittee each introduced themselves.

A motion was made to adopt the meeting summary from the previous meeting. Mr. Jerry Lewis, Sundance Training, requested to also include the Pressure Vacuum Assembly (PVB) in the section titled, *Testing Insulated Backflow Prevention Assemblies*. No objections were raised and a second motion was made to adopt the meeting summary with the added change. The motion was seconded and the vote to adopt was unanimous.

##### HB 848 & HB 1192

Mr. Byron Hardin

Mr. Byron Hardin, Hardin & Associates, provided a brief update on current legislature which could affect Cross-Connection Control and Backflow Prevention. Mr. Hardin discussed:

House Bill 848 – seeks to eliminate needed relevant experience in order to obtain the Backflow Prevention Assembly Testers license.

House Bill 1192 – seeks to expand the use of graywater in a residence.

Mr. Hardin described the cross-connection and backflow concerns with these Bills and recommended calling the Bill representatives office to voice any opinions or concerns.

##### Filling out the T&M Report

Mr. Fred Baird & Mr. Byron Hardin

Mr. Fred Baird, Bacflo Unlimited, lead the discussion on Backflow Prevention Assembly Testers (BPAT) filling the Backflow Prevention Assembly Test & Maintenance Report (T&M). There have been incidences, recently and in the past, in which someone other than the BPAT filled out the T&M report. A couple of examples given were:

- the form was filled out ahead of time and then the BPAT signed it, or;
- the test results were phoned-in and an administrative assistant then filled out the form.

This is in direct contradiction to the way the BPATs are trained when acquiring the BPAT license. BPATs are taught to take the blank form with them in the field and fill the form out on-site during or after the test of the backflow prevention assembly. Mr. Baird stated that he tells the BPATs in his training classes that he wants to see the “Mud and Blood” on the forms.

TCEQ regulations require that the BPAT fill out the Test & Maintenance Report. This is specified in:

**290.44(h)(4)(C)** *A test report must be completed by the recognized backflow prevention assembly tester for each assembly tested. The signed and dated original must be submitted to the public water supplier for recordkeeping purposes. Any form which varies from the format specified in Appendix F located in §290.47(f) of this title must be approved by the executive director prior to being placed in use.*

The role of the BPAT is critical in protecting the public water supply. To further exemplify this, in order to obtain the BPAT License, the BPAT must take an intensive **40 hr.** course and must pass a Practical Hands-on test as well as an extensive Written test. During that training, the BPAT is taught that he must take the T&M Form out with him when he is testing backflow prevention assemblies and fill the form out completely. When submitted to the water system, the T&M form provides information on what the BPAT encountered when he was on the site and whether the assembly was functioning correctly. Administrative staff don't have that level of training.

For these reasons, a BPAT is required to fill out the form completely. It is not advisable to have administrative staff fill out any part of the form as this could lead to complacency on behalf of the system or the BPAT, which could result in misinformation and mistakes on the form. The BPAT's responsibility for protecting public health is such that the field procedures as well as the regulations must be strictly adhered to.

#### Revisiting the Irrigation Systems General Information document

Mr. Fred Baird

Mr. Fred Baird recommended revitalizing the attempt to develop a general information/educational document which addresses irrigation systems, the challenges posed by irrigation systems, and the backflow requirements. A draft of this document was previously created, but was put on hold in order to work on revisions of current Regulatory Guidance documents. It was the general consensus of the subcommittee to revisit this document and create a final draft for publication.

#### Code of Ethics for BPATs

Mr. Fred Baird

In 2013, the subcommittee developed a Code of Ethics for backflow prevention assembly testers. The Code of Ethics was created to provide some guidance to BPATs when confronted with challenges to their honesty and integrity. Some of the subjects covered in the Code are:

- falsifying reports;
- inappropriate use of their license;
- employer's inappropriate use of the license number;
- neglect of needed corrections to plumbing;
- bribery;
- proficiency;
- confidentiality.

The Code of Ethics is provided when individuals are training to obtain the BPAT license. Mr. Baird recommended reviewing the Code for any necessary improvements and asked that any recommendations be provided to him for consideration to be included in the Code.

#### NSF Certification of Backflow Prevention Assemblies

Mr. Al Fuentes

Mr. Al Fuentes, TCEQ Cross-Connection Control Program, provided information on a question which was posed to him: Does TCEQ require NSF International certification of backflow prevention assemblies installed on the customer's side of the meter?

The answer is: No, the NSF requirements apply to water treatment and water distribution. Per the definition:

**290.38(21) 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.*

The customer's side of the meter is excluded from the NSF certification requirement for backflow preventers.

This leads to the question: Does TCEQ require NSF International certification of backflow preventers installed on the PWS distribution system?

The answer is: Yes, NSF certification is required per:

*290.44(a)(1) All newly installed pipes and related products must conform to American National Standards Institute/National Sanitation Foundation (ANSI/NSF) Standard 61 and must be certified by an organization accredited by ANSI.*

#### Form Approvals (new lead free requirements)

Mr. Simon Arends

Public Water Systems (PWS) are encouraged to use the TCEQ form approval process to update their Customer Service Inspection Certificates (CSI) to reflect the new Environmental Protection Agency (EPA) lead free requirements. The new definition of lead free allows 0.25% lead of the wetted surface. Previously the lead free definition allowed 8% lead content.

There are a couple of options in which CSI forms can be updated. Each CSI must have the compliance option saying, "No pipe or pipe fitting which contains more than 8.0% lead exists in private water distribution facilities on or after July 1, 1988." One option is to simply change the lead percentage to 0.25% and the date to January 4<sup>th</sup>, 2014. Another option is to add another compliance option on the form that is identical to the sentence mentioned, but with the new lead percentage and date.

In regards to the Backflow Prevention Assembly Test & Maintenance (T&M) Reports, there has been a recent trend in alternate T&M report form approval requests to also ask for electronic record-keeping approval. If a public water system has intentions of moving to an electronic record-keeping system, the public water system must request approval.

#### USC Cross-Connection Control Program Specialist Course

Mr. Al Fuentes

Efforts are being made for TCEQ to host the University of Southern California's Foundation for Cross-Connection Control course titled Cross-Connection Control Program Specialist. If this comes to fruition, the subcommittee will be notified for participation.

#### Backflow Prevention and Cruise Lines

Mr. Byron Hardin

Mr. Byron Hardin provided a presentation on Backflow Prevention and Cruise Lines. Among the many things covered in the presentation, included were:

- Backflow events on cruise ships which lead to the passengers getting sick;
- The hazards posed to the land-based potable water distribution system when a cruise ship connects to it;
- Types of potable water use on a cruise ship and their connections;
- Where backflow preventers are needed;
- Information available to the potential passenger when booking a cruise.

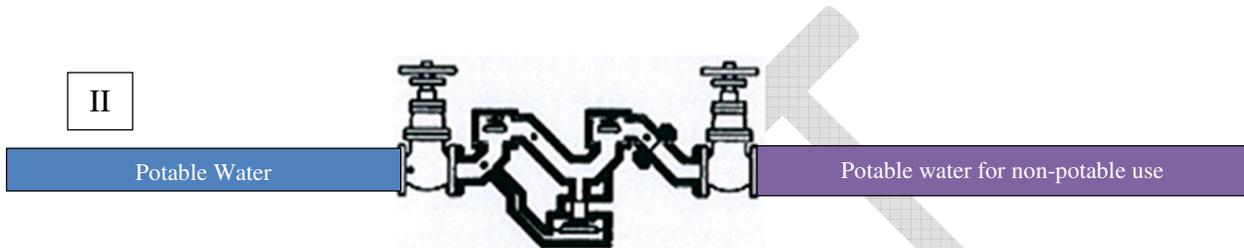
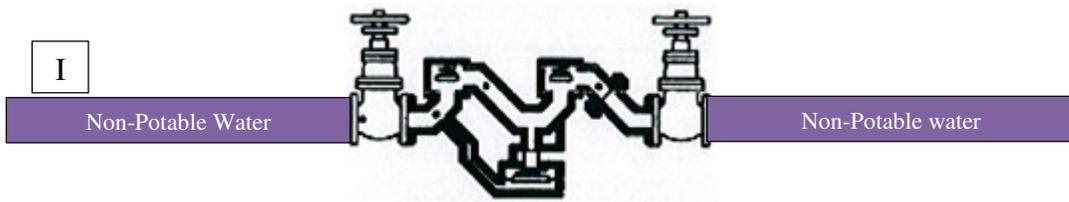
#### Using "Non-Potable" Gauges

Mr. Fred Baird

Mr. Fred Baird lead the conversation on testing backflow prevention assemblies (BPA) on lines carrying non-potable water. At issue is 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.

Two scenarios have been encountered:



In scenario I it is clear that the non-potable water is the contamination hazard and dedicated gauges appropriately labeled such as, “Use Only for Non-Potable Supplied Assemblies,” must be used.

In scenario II, the appropriate gauges to use are the **potable water** gauges. Use of the non-potable gauges could result in contamination of the potable water supply.

Mr. Hardin, who currently serves on the AWWA M-14 Rewrite committee and one of the contributors to the 4<sup>th</sup> edition, provided an update on the new AWWA M-14 Backflow Prevention and Cross-Connection Control Recommended Practices 4<sup>th</sup> edition manual. This manual is intended to serve as guidance to all professionals working with the potable water supply on the recommended procedures and practices for developing, operating, and maintaining an efficient and effective cross-connection control program.