

Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

Wednesday, March 6, 2013

Building F, Room 2210

Time: 9:00 – 3:00

Meeting Summary

Announcements & Introductions

Kenny Dykes

The meeting date for the next Cross-Connection Control Subcommittee meeting is June 5, 2013. A motion was made to adopt the minutes from the previous meeting of December 5, 2012. A second motion was made and the vote was in favor of adopting. The minutes will be available on the TCEQ website.

Irrigation General Information Document-results from IAC meeting **Fred Baird**

Mr. Fred Baird, Bac-Flo Unlimited, Mr. Troy Baird, Bac-Flo Unlimited, and Mr. Al Fuentes, TCEQ Water Supply Division, presented the General Information (GI) document on Irrigation, currently being developed by this Subcommittee, to the Irrigation Advisory Council (IAC). The IAC was in favor of the document but recommended that it be further simplified so that the homeowner could better understand it.

As part of the general discussion the following points were made:

- The subcommittee would like the opportunity to review the GI after editing from TCEQ publications.
- Make sure to keep the Drinking Water Advisory Workgroup (DWAAG) advised of the progress.

The work group members responsible for creating this document will make the necessary changes. The Work group members are: Mr. Fred Baird, Mr. Byron Hardin, Mr. Danny Lytle, Mr. Michael Aldrup, Mr. Roy Dillard, Mr. Jerry Lewis, and Mr. Bob Moore

Statistics on failure rates for backflow devices

Paul McDowell

Mr. Paul McDowell and Mr. Robert Brown with Benbrook Water Authority provided data on testing and failure rates of backflow prevention assemblies in their distribution system. The following numbers were provided of backflow prevention assemblies which were not functioning correctly when tested:

2010 – 72 or 5.5%
2011 – 111 or 6.1%
2012 – 142 or 6.6%

Each occasion represents a source of contamination in the event of backflow. These failure rates are considerably more significant in those systems which have many more water customers. The risk of contamination is further exacerbated by those systems which choose to eliminate testing of backflow prevention assemblies on irrigation systems. Benbrook Water Authority is proactively requiring testing of backflow prevention assemblies on an annual basis. Some of the reasons for a backflow assembly failing a test are:

- It had been frozen the winter before and this is the first test of the spring.
- Mineral deposits on the check valves prevent them from sealing.
- Normal wear-and-tear.
- Rust particles from upstream of the assembly have become lodged in the check valve.
- Other debris from the plumbing system is blocking the check valve from closing.
- Water hammer (surging water pressure) has damaged the assembly internally.

Mr. Danny Lytle, City of Austin, Mr. Bruce Rathburn, San Antonio Water System (SAWS), and Mr. Byron Hardin, Hardin & Associates will be contacted to provide similar data so that failure rates can be determined for their distribution systems.

Privatized CSI Forms / Electronic BPAT Forms

Byron Hardin

When a backflow prevention assembly tester (BPAT) tests a backflow prevention assembly, he is required to record the results of the test on an official form, the Test & Maintenance Report form in TCEQ regulations. Any form which varies from the form in Appendix F of the TCEQ regulations must receive prior approval before being placed into use.

Mr. Byron Hardin, Hardin & Associates Inc., spoke of the challenges private testers face in using approved forms for different Public Water Suppliers (PWS). He asked if TCEQ could provide approval of forms for private testers so that those forms could be used at any PWS throughout the state. Mr. Al Fuentes replied that TCEQ only has jurisdiction over PWSs and so providing approval letters to private testers is not an option. He further stated that each PWS must have its own approval letter for its own form(s).

There was also a general discussion of private companies who develop software to keep the forms used for testing backflow prevention assemblies electronically. At issue is, once TCEQ has approved this form of record keeping:

- How would there be assurance that the software would not be changed when needed which would require further TCEQ approval?
- How would the forms be made available to a TCEQ investigator during a Comprehensive Compliance Inspection?
- Is the option available for TCEQ to develop a database and an electronic version of the form which could be provided to PWSs?

Engineered Air Gaps

Byron Hardin

Mr. Hardin led the discussion on using engineered air gaps on chemical dispensing units. An air gap is the unobstructed distance between the outlet of the pipe conveying water and the overflow

rim of the receptacle. This distance must be at least twice the diameter of the conveyance pipe but not less than one inch. An engineered air gap, as observed during the meeting, is usually small and one which has small extensions from the water outlet to the receiving receptacle which fixes the air gap distance and prevents the water outlet and the receptacle from moving relative to each other. An engineered air gap does not meet the definition of an air gap in TCEQ regulations.

Mr. Hardin provided 3 examples of engineered air gaps which are used typically on chemical dispensing units for cleaning maintenance of different facilities. He stated that only the type of engineered air gap which actually provides over an inch of space (provided example) should be allowed.

San Antonio Water System (SAWS) Cross-Conn Program

Frank Snyder

Mr. Frank Snyder requested input from the subcommittee on the way SAWS verifies that there is no cross-connection at a location which has two different plumbing systems: one for the irrigation system which uses reclaimed water and one for the potable water. Typically, ink is injected into the irrigation system and then the water is turned off. Then the potable water system is flushed to see if any of the ink shows up in that system. The reverse is also carried out to see if the ink shows up in the irrigation system.

Of concern is the need to temporarily turn the potable water supply off. As an example Mr. Snyder mentioned the need to do this at a large apartment complex and at a location which provided housing to older people. Turning the water off could cause problems to the inhabitants needing to use the potable water.

The subcommittee responded that the risk posed by using reclaimed water justified the inconvenience of temporarily turning of the potable water supply to verify that no cross-connections were present.

BPAT Exam

Barbara Mendieta

Ms. Barbara Mendieta, TCEQ Occupational Licensing Section, provided the below summary on the initiative to develop a standard test for individuals wishing to acquire a Backflow Prevention Assembly Tester (BPAT) License:

The formal mission of the BPAT exam project is to develop a standardized written license exam to establish an independent impartial measurement of competency consistent with job task analysis and administered by TCEQ staff. A workgroup of internal and external Subject Matter Experts (SMEs) have been tasked to develop the written exam and also to develop uniform standard procedures and protocols for administering the practical skills field testing exam.

The workgroup had their first meeting January 24. We began by reviewing the most recent (2004) BPAT job task analysis and edited tasks for clarity, added tasks, and reordered tasks according to criticality including making a determination whether any tasks could be dropped from this list as not meriting a place in the curriculum.

We wanted to determine whether the task list categories appropriately correlated to the curriculum topics and exam categories and whether the percentage of questions corresponding to each category accurately reflected what we thought the composition of the exam should be.

We determined the number of questions to have on the written exam (100) and the amount of time allotted to complete the exam (3 hours).

The next workgroup meeting agenda (March 28) includes old business (further adjustments to task list) – With the addition of a NIIO (Notify, Identify, Inspect, Observe) category, we still need to adjust rankings, adjust percentages of categories, move tasks from one category to another, and clarify some of the task descriptions.

New business includes creating the exam question item bank (from existing TCEQ job task analysis as well as exam contributions from participating training providers), identifying & removing unacceptable questions & answer choices as well as identifying & documenting training material reference citations.

GI – 411**Al Fuentes**

Mr. Al Fuentes provided to the subcommittee members copies of General Information document #411 (GI-411) titled, “A Consumer’s Guide to Backflow Prevention in Texas.” There are only limited free copies of this very helpful document until the next fiscal year.

Review: Code of Ethics – Where do we go from here.**Byron Hardin**

Mr. Hardin presented the latest draft of the, “Code of Ethics for TCEQ Licensed BPATs.” Some recommendations were made for minor changes to the language. Mr. Hardin will incorporate those changes and provide the Code to Mr. Kenny Dykes for TCEQ review. Some possible uses for this code are:

- Provide to training providers for distribution
- Distribute to applicants when testing for a BPAT License
- Publish on the TCEQ Website

This topic will be further developed and put on the agenda for the next subcommittee meeting.

Discussion on HB 2179**Al Fuentes**

Mr. Al Fuentes provided copies of House Bill #2179 (HB2179) to subcommittee for discussion. HB2179 transfers the licensing of BPATs from the TCEQ to the Texas State Board of Plumbing Examiners (TSBPE) which will have a large effect on all concerned. Members of the subcommittee will monitor the progress of this bill and provide input when and where an opportunity is presented.

Submitting Agenda Topics for future meetings**Kenny Dykes**

Mr. Kenny Dykes, TCEQ Cross-Connection Control Program, suggested to the group that we use our working lunch time to discuss future topics and agenda items. One of the reasons for this change is to involve more members of the subcommittee in putting together agendas for future meetings. The subcommittee was in favor of this suggestion and it will be used at our next meeting.