

# Texas Commission on Environmental Quality Cross-Connection Control Subcommittee

June 4, 2014

Building F, Room 2210

Time: 9:00 – 3:00

## Meeting Summary

### Introduction

Mr. Al Fuentes

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The remaining meeting dates for the rest of 2014 are: 09/03, 12/03.

Mr. Fuentes asked for any comments on the meeting summary from the previous meeting. After incorporating some minor changes, the vote to adopt the meeting summary was unanimous. It will be posted to the TCEQ Website in the near future.

### ABPA Conference Follow-up

Mr. Troy Baird

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The May 2014 conference was held in Pittsburgh, PA. Many excellent technical sessions were presented which provided thorough and detailed information on topics relevant to backflow prevention and cross-connection control programs. Highlights on the following topics were presented:

Mr. Darrell Osterhoudt discussed the Federal Rules and Their Effect on Cross-Connection Control Programs. Of particular interest are the new lead requirements. There is currently no change to the Code of Federal Regulations §1417, however guidance is provided through a Frequently Asked Questions document on the Environmental Protection Agency website.

Ms. Patti Fauver discussed the revised total coliform rule (RTCR), which is effective April 1, 2016. Her presentation included the definition in the RTCR of cross-connections as “sanitary defects” or “significant deficiencies.” Approved Cross-Connection Control Programs are considered “additional barriers” and can allow for a reduced monitoring schedule.

Ms. Ray Ann Brammer discussed the legal liability associated with water distribution. She provided information on the current limit of a Public Water Supplier’s (PWS) authority which stops at the meter. Because people on the other side of the meter are often vulnerable to the hazards on-site, she recommended that, at a minimum, a PWS should educate the individuals on the other side of the meter on the hazards of backflow. She went on to state that legal precedence has shown that failure to maintain gauge test certificates and T&M forms that contain dates and times can lead to unfavorable verdicts in court.

Mr. Randy Engle discussed the concerns associated with electronic field test reports. To ensure that testers complete their duties according to the regulations, the effort must be made to confirm that the tester actually went on site to conduct the test. This could include providing test notices that exclude the values for the serial numbers. Unauthorized users, password longevity, and lost passwords are all issues of strong concern. It is recommended, that when a test is completed, confirmation that the form was accepted by the computer program is sent to the tester, the PWS, and the customer.

Mr. Julius Ballanco discussed potential hazards in residential plumbing. Hose bib vacuum breakers (HBVB) have a 93% failure rate after 5-10 years. This is significant because they are usually installed so that the homeowner would have to replace the entire valve when the HBVB malfunctions. Grey water systems with potable makeup line and submerged ball-cocks in the toilet tanks continue to be prominent issues.

For more information on the conference, please go to: [www.abpa.org/](http://www.abpa.org/)

Mr. Russ Gardner, TCEQ Occupational Licensing (OL) section, provided an overview of the process used when taking an enforcement action against an individual's license. For the most part, the discussion centered on the Backflow Prevention Assembly Tester's (BPAT) License. The process usually begins with a complaint from the customer or the local water purveyor. This leads to:

- An investigation by the TCEQ regional investigator;
- A notice to the licensee who has an opportunity to respond;
- An administrative hearing;
- Review by alternative dispute lawyers;
- Review and recommendation by an administrative law judge;
- And recommendation from the TCEQ commissioners.

This process could take up to two (2) years during which, the BPAT's license is "frozen" in its current status. For example, if at the time this process was begun, the BPAT's license was expired, then the BPAT will not be able to renew his license until a determination is made.

Recidivist activities, falsified applications, and examination fraud will trigger the license revocation process directly from the OL section, as opposed to going through the above mentioned process, which will reduce the amount of time needed for suspension or revocation. Another challenge that the OL section is faced with is the activities of unlicensed persons.

An influencing factor on the determination to suspend or revoke an individual's license is the action taken by the local public water supplier. A PWS's actions (i.e., not accepting the records from that BPAT or disallowing him from working in their service area) could lend support to the OL.

Mr. Gardner provided additional information on general licensing questions posed by the subcommittee. The requirement for the Criminal Background check has increased the amount of time needed to obtain a license or renewal. If the licensees do not begin the renewal process when the notice is received they may be without a license until their renewal is processed. Criminal Background checks are less extensive as licensees seek renewals with no changes in their criminal histories. The OL focuses on crimes that impact applicant current positions, such as, thefts, sex crimes, and other felonies

It should be noted that a licensed individual may begin accruing continuing education credits (CEUs) upon getting their license and should not wait until they receive the renewal notice, 90 days prior to the expiration date. Also, the renewal application can be submitted online where the original license application cannot. The OL is currently working to streamline the application and renewal process.

### **Financial Assistance for Cross-Connection Control (CCC) Programs**

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It can be challenging for public water suppliers to implement an effective and comprehensive cross-connection control program. Many of the programs are lacking guidance, educational tools, and funding. There are a few programs available that can provide financial and technical assistance such as:

- The Texas Water Infrastructure Coordination Committee (TWICC) provides financial, managerial and technical assistance to water and wastewater service providers. Funding for backflow prevention assemblies, software, computers, and other tools to help a water provider may be pursued. TWICC meets every other month in the Stephen F. Austin building in downtown Austin. For more information please go to: <http://www.twicc.org/>
- TCEQ additionally provides Financial/Managerial/Technical (FMT) Assistance to assist water providers. Ms. Stacey Foster, TCEQ F/M/T Assistance Program, provided some valuable information on this program. FMT has the ability to provide a broad range of assistance without having to document any non-compliance however, the information obtained while receiving FMT assistance is not confidential. Additionally, the FMT program does not provide engineering services or legal advice. For more information please go to: <http://www.tceq.texas.gov/utilities/fmt>

Mr. Kenneth Dykes lead the discussion on possible voluntary assistance for Cross-Connection Control Programs from the subcommittee. Many members are already providing assistance to PWSs consistently. The prime host of expertise and information exists on the CCC Subcommittee. It would be helpful to water providers to have a list of contacts available in their area to act as a resource when they need help with their program. Some options the committee suggested include:

- Create a list of volunteers that are strategically located to provide advice and direction;
- Offer a packet of educational documents that is accessible electronically & hardcopy;
- Recommend TWICC and/or FMT assistance (see above).

The primary concern among members was the lack of consistency that exists and ways to correct mis-information. It was the consensus of the subcommittee to further explore this idea.

**CCC Programs for Smaller Communities****Mr. Larry Bell**

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Mr. Larry Bell, Texas Rural Water Association, discussed the challenges of running successful cross-connection control programs for smaller communities (e.g. population <10,000). Among the challenges discussed by Mr. Bell were:

- These smaller systems do not experience much growth so they employ contractors to conduct the initial Customer Service Inspection (CSI) as opposed to having a licensed individual on staff. Often times, this is due to the PWS not having complete knowledge of the CSI regulation which requires the CSI for new construction but, also when the plumbing has been modified and when the PWS suspects there is a possible contamination hazard.
- Most small communities do not have the funds to attract enough manpower to efficiently run the CCC programs. It is common to see one (1) operator doing a majority of the work for the PWS.
- Small communities are also challenged in having the appropriate authority to require CSIs, backflow preventers, and testing of those backflow preventers. Often absent in this authority are provisions for enforcement up to and including termination of service.
- An issue that seems prevalent in smaller communities is the lack of recognition of the PWSs authority by other local enforcement agencies like the local police or sheriff's office. An example was provided in which, due to a contamination hazard and noncompliance with the backflow regulations, the water purveyor removed the meter from a site. Sometime later, the PWS was forced to reinstall the meter and provide water service by the local sheriff's office. The sheriff was not aware of the hazards of cross-connections and backflow.

Some possible solutions to face these challenges are to provide the TCEQ's regulatory guidance documents to assist PWSs in obtaining full knowledge of the regulations, contact TWICC or FMT for funding options (see above), review their local customer service agreements and make any necessary changes so that the PWS has the authority to run the CCC Program, and to communicate with local officials on the requirements of the CCC Program.

**Backflow Prevention Questions****Mr. Buddy Heuberger**

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Mr. Buddy Heuberger, WSH Company Inc., posed the following questions to the subcommittee:

- TCEQ's requirements allow for a Reduced Pressure Principle Backflow Prevention Assembly (RP) to be installed to protect against a health hazard. This also means that the RP must be tested annually to make sure it is working correctly.  
Mr. Heuberger's question was; if a situation occurs where an RP is installed without a health hazard being present, is annual testing still required? It was concluded by the subcommittee that in situations where an RP is installed with no hazard present, annual testing is **not** required.
- Another question posed by Mr. Heuberger was; where should an RP installed to protect from copper poisoning in a carbonated beverage dispenser be located? After some discussion, the subcommittee concluded that the RP should be installed such that the water acidified by the carbon dioxide does not come in contact with any copper plumbing should backflow occur. Some carbonated beverage dispensers are made with plastic plumbing to eliminate the copper poisoning hazard, in this case, it would be appropriate to install the RP at the transition from copper plumbing to the plastic plumbing of the carbonated beverage dispenser.

## **Backflow Prevention at Cattle Troughs**

**Mr. Al Fuentes**

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Backflow prevention at cattle troughs has proven challenging. The current consensus from the subcommittee is that an air gap is the best solution and potentially achieved by the modification of a float valve to create the necessary gap. Hose Bibb Vacuum Breakers (HBVB) are not designed to hold constant pressure for long periods of time; therefore they are not an acceptable solution. There was one alternative use of an HBVB on a timer which would turn on long enough to keep the trough full and then shut off. This meant that the HBVB was not under constant pressure and would function correctly.

## **Challenges of Electronic Record-Keeping**

**Mr. Al Fuentes/Ms. Amanda Farley**

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Mr. Al Fuentes, TCEQ Cross-Connection Control Program, and Ms. Amanda Farley, TCEQ Water Supply Division, lead the discussion on the challenges they face when evaluating requests to keep records electronically. Current TCEQ rules require that any CSI or BPAT forms which differ from those provided in TCEQ regulations receive approval from the executive director before being placed into use. The current trend is to comply with TCEQ's record keeping requirements by using the available wireless electronic technology. Some of the challenges faced are:

- Will the software identify when values that are out of acceptable parameters are entered?
- Will the software alert the tester that a backflow preventer has failed a test?
- Will the software record that a backflow preventer failed a test, was repaired, and passed the test after repair?
- What precautions are taken when the tester has successfully tested a backflow preventer and, for some reason, the software is not available (malfunction, user error, etc.)?
- In the case where an unscrupulous individual is misusing the software, does the software have the ability to confirm that the tester actually went on site to conduct the test?

Some suggestions provided during the discussion were to make sure the electronic forms have sufficient space so that the tester can provide any additional pertinent information, make temporary passwords available when a tester forgets his password, record the time that the tester filled out the form, use GPS technology to confirm that the tester was on site, the use time stamped photos, and send a notice to the customer, PWS, and tester that a test has been conducted and the form was accepted by the software.

Requests for approval of alternate formats are reviewed on a case-by-case basis. The following is a list of typical items that are necessary to complete the review of a request:

- Precautions taken to prevent data loss;
- Precautions taken to ensure data integrity (fraud prevention, consistency with USC test procedures);
- Compliance with the Record retention requirements (BPAT retention is 3 years, CSI retention is 10 years or indefinitely);
- Any deviations from the form provided in TCEQ regulations.

Many of the challenges faced with electronic record keeping are the same as those faced when a tester uses a hardcopy form to record test results. Ultimately, reliance on an individual's integrity and credibility will continue to assure that the information entered on a form is accurate.

## **BPAT Practical Test Procedures**

**Ms. Linda Saladino**

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Ms. Linda Saladino, TCEQ Occupational Licensing Section, conducted a meeting with just those members of the subcommittee which were involved in the creation of the new BPAT test. They discussed exam proctoring. The following are some of the highlights from their discussion:

- Consideration is being given to use the American Society of Sanitary Engineers (ASSE) form as a template for scoring the practical exam. The forms will be modified to reflect the USC test procedures.
- The difficulties of assigning values for steps of the test, or deducting for mistakes, or how to score the

malfunctioning assembly test were discussed.

- How many assemblies should the applicant test and how many malfunctions should be built in? Consensus was test all four types of backflow preventers functioning correctly and set-up one with a malfunction to test the applicant on trouble shooting.
- The applicant must complete the TCEQ Test & Maintenance Report form in the TCEQ regulations with only slight modifications for the practical test.

#### Proctor Qualifications:

- Consideration is being given for proctor qualifications to include instruction of at least a minimum number of courses (yet to be determined) and complete proctor training using the TCEQ forms to proctor a mock BPAT exam.
- It was clarified again that existing qualified instructors who have taught at least a minimum number of courses and administered the practical test, should meet TCEQ proposed proctor qualifications. They may still need to successfully complete the online video course to ensure they are able to implement the TCEQ process.

#### Goal:

- Have Proctor Qualification and Practical Skills Testing guidance by the next Cross-Connection Control Subcommittee meeting. If the process results in passing only those candidates who successfully test all devices, and it is clearly documented to those who fail why they failed, it is a win-win.

#### Other topics:

- Mr. Roy Dillard, ABPA, reminded us that once the written exam is created, it must be validated by periodically analyzing the performance of the questions; TCEQ has this capability for current licensing exams.
- Assistance to be provided by the hiring of a summer intern to help with input of questions for the written exam into TCEQ's database.
- Questions about implementation discussed again.

#### Action item for SME's:

- How many courses with practical examinations should the current instructors have completed to meet proctor qualifications?
- How many courses with practical examinations should new instructors/providers have completed by an "outside" qualified proctor before administering the exam themselves?