

Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

December 6, 2011

Meeting Summary

Welcome/Introductions/Announcements:

- Mr. Sean Scaff was introduced as the next person in-training for the TCEQ Cross-Connection Control Program
- The tentative dates for the 2012 Cross-Connection Control Subcommittee meetings are: 3/7, 6/6, 9/4, and 12/4

Vote to adopt minutes from last meeting:

The meeting summary from the September 6, 2011 meeting was adopted.

Recap of HBVB use against health hazards

Mr. Al Fuentes, TCEQ Cross-Connection Control Program, asked whether a hose bib vacuum breaker (HBVB) would be adequate backflow prevention at an RV park. The issue being that when flushing the blackwater tanks on many RVs, a direct connection can be made to the potable water system. The following points were made in the general discussion:

- According to TCEQ regulations, when flushing a blackwater tank the HBVB is considered adequate protection.
- It is preferred to utilize an Atmospheric Vacuum Breaker (AVB) or a Reduced Pressure Zone Backflow Prevention Assembly (RP) at the meter instead of the HBVB.
- Some RV Parks will have a common drop station where all the RVs will go to flush their blackwater tanks. In this case, it is more important that the potable water supply be protected with an appropriate backflow assembly. Because there is only one location, it becomes more feasible to install an AVB or an RP.
- Other RV parks have individual parking spots at which the blackwater tank can be connected to the potable water supply line to flush the tank.
- An existing Regulatory Guidance document, RG-206, addressed this topic in the following way:

Inspections of RVs and Mobile Homes

How can a water supplier protect against backflow at a recreational vehicle (RV) park?

When owners of RVs flush and clean the waste from the plumbing system of RVs, a potential threat to the potable water supply may be created. Many RVs are sold today with a “sewer flusher” connection which allows the blackwater tank to be flushed.

Most RVs have two types of waste holding tanks: one holds the waste from the toilet (blackwater tank) and the other holds the waste from the bath tub/shower, wash basin, and kitchen sink (graywater tank).

According to manufacturers of devices used to flush blackwater tanks, these devices address the problem of solids build-up. However, the device allows

for the direct connection between the blackwater tank and the public water supply. While most of these devices come with some form of backflow protection, 290.47(i) **prohibits** the connection of a public water supply to a sewer pipe. Since the blackwater tank of an RV holds the same materials as a sewer pipe, devices that allow connection between the public water supply and blackwater tanks are a threat to the potable water distribution systems of the RV park and the public water supplier.

Public water suppliers should:

- perform periodic inspections of RV parks that are within their service area;
- educate managers of RV parks about blackwater tank flushing devices;
- encourage managers of RV parks to inspect every RV that enters their park, especially when the RV owner is connecting the RV to the RV park's potable water distribution system. Managers of RV parks should prohibit the use of "Y Hose Adapters," which enable an RV owner to establish connections from a potable water hose bibb to both the RV's potable water system and sewer flusher connection at the same time.
- at a minimum, require premises isolation at the master meter by the installation of a reduced-pressure-principle backflow prevention assembly at every RV park within their service area.

For those public water systems that include numerous RV parks in their service area, it may be necessary to adopt specific language (and/or requirements) in a backflow prevention ordinance that addresses the unique hazards that may be found at RV parks.

What are the requirements for customer service inspections at mobile home parks?

Water suppliers are *not* required to conduct a customer service inspection for a mobile home entering a mobile home park *unless* a cross connection or potential contamination hazard is suspected. This standard also applies to mobile homes placed on an individual lot.

However, manufactured homes are required to comply with proper plumbing standards under the Manufactured Housing Construction and Safety Standards that are enforced by the Federal Department of Housing and Urban Development. These standards, which became effective on June 15, 1976, prohibit lead and cross connections within the home.

ABPA National Exam Process including the proctoring of Practical Exams

Mr. Roy Dillard, American Backflow Prevention Association (ABPA) gave a presentation on the development and proctoring of the ABPA national exam. The exam was established in 1994 due to the lack of national certification. The exam focuses on two distinct ideas:

- **Training-** The ability to understand the material well enough to teach it to someone (i.e. textbook knowledge).
- **Certification-** Involves the testing of book-based knowledge and backflow assemblies.
 - 3 levels of knowledge discussed:
Nice to know- Personal experience working with the equipment and in the industry in general;

Should Know- Case histories, and reasons for failures of the different assemblies;

Need to know- Includes knowledge of hydraulics, the theory of backflow, local, state and federal codes, the assemblies themselves, agency responsibilities, and how the equipment works.

The ABPA Exam contains two parts:

- **Written exam-** Contains 100 questions which are selected from a bank of 600 questions (must be passed before moving on to the hands-on section). The questions are drawn from sources such as: EPA, AWWA, USC 9th and 10th editions, and TREEO Manuals
- **Hands-on exam-**This involves demonstrating proper test method techniques on the 4 different backflow prevention assemblies. This section is observed and graded by a proctor one-on-one.

In order for an applicant to be eligible to take the exam, they must have either completed a 40-hour backflow course, or have at least 2 years of working backflow experience. Applicants must fill out the application and submit an \$85 fee to take the exam. The exam is given once a month and, if passed, the applicant receives a certification number and a card. Certifications last for a 3 year period. If the applicant passes the written exam, but fails the hands-on section, his/her written exam results are kept on file for 1 year.

All exams are given by ABPA-certified proctors. The proctors must pass an 8 hour course and pass a proctoring exam.

New BPAT Exam

Mr. Joe Hildenbrand, TCEQ's Occupational Licensing Section, discussed the need to create a new BPAT exam which will be administered by the agency. Currently, approved training providers administer both a written and hands-on exam at the end of a TCEQ-approved 40-hour course. Review of the testing procedures and training materials from a number of training providers revealed the following discrepancies:

- The exams cover different material and difficulty levels vary;
- There is a strong potential for a conflict of interest if a training provider can generate more business by having his/her students pass his exam;
- The current testing procedures do not provide testing data, i.e. pass/fail rates;
- There is a tendency for trainers to only teach the material that will be covered on the exam;
- Having the TCEQ administer the written test is consistent with other regulating authorities;

Some of the issues and considerations voiced by members of the Committee were:

- Having TCEQ administer the written exam in-house would result in better practices;
- The exams could be taken at the TCEQ Regional Offices and existing testing and licensing centers with a TCEQ proctor;

- The training providers would continue administering the hands-on portion of the exam;
- Applicants would need to complete a 40-hour training course before being eligible to take the exam. The applicant would pass the hands-on portion before taking the written exam.
- The job analysis conducted in 2004 generated 75 new questions which could be incorporated into the new exam. Input from current training providers, cross-connections specialists, Fire Marshall's Office, industry professionals, and Cross-Connection Control Manuals would be needed to generate more exam questions.

Mr. Hildenbrand suggested potentially forming another subcommittee to discuss the new exam criteria.

Home Inspections as Approved Experience for BPAT License

Mr. Byron Hardin, Hardin and Associates Consulting, LLC inquired recently about the experience that Home Inspectors get as qualifying experience toward getting a Customer Service Inspection (CSI) License. At the time, the Committee and members of the Occupational Licensing Section decided to review any available information and take the matter under consideration.

If you have any questions, please contact Al Fuentes by email at Alfonso.Fuentes@tceq.texas.gov or by phone at (512) 239-1407.