

Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

June 6, 2012

Building F, Room 2210

Meeting Summary

Welcome/Introductions/Announcements:

Al Fuentes

Tentative meeting dates for last two meetings of 2012 are: 9/4, 12/4.

Vote to adopt minutes from the last meeting:

Mr. John Jordan, Houston Area Plumbing Joint Apprenticeship Committee (HAPJAC), requested to include the American Society of Sanitary Engineering (ASSE) in the list of organizations that might provide supporting information for the proposed guidance document concerning irrigation systems.

Regulatory Guidance Document for irrigation systems

Al Fuentes

Mr. Al Fuentes, TCEQ Cross-Connection Control Program and Mr. Joel Klumpp, Technical Review and Oversight Team, discussed with Water Supply Division-level management the request from this subcommittee for a Regulatory Guidance (RG) document regarding the testing of backflow preventers on irrigation systems. It was decided that an RG is not a good option because it could contradict regulations, however they were able to receive approval for a General Information (GI) document which would cover a much broader area of backflow prevention on irrigation systems.

Those members of the subcommittee who volunteered to create the guidance document are: Fred Baird, Mike Aldrup, Roy Dillard, Bob Moore, Jerry Lewis, Danny Lytle, and Byron Hardin. After the 1st draft has been completed, it will be made available to the Subcommittee for review.

The following comments were made on this subject:

1. There is a strong need for statistical information regarding failure rates, backflow events, etc. in regards to irrigation systems.
2. Texas University in San Antonio who has 104 connections, the majority of which are for irrigation systems might be a good option for a study regarding backflow on irrigation systems.
3. Another source for information regarding failure rates of backflow prevention assemblies is a presentation from College Station given to this subcommittee

- approximately 2 years ago.
4. It would be beneficial to describe several examples of irrigation systems to examine different plumbing scenarios and backflow assemblies.
 5. The plumbing codes and national organizations should be referenced.
 6. The subject of verifying correct installation and it being an enforcement issue should be covered.
 7. The language in the plumbing code that talks of monitoring (as opposed to testing) backflow preventers should be included.

Developments in Corpus Christi's Testing Requirements

Al Fuentes

Mr. Al Fuentes provided an update on Corpus Christi's local rule, in which all backflow preventers on irrigation systems require annual testing. The City council entertained the notion of eliminating the annual testing requirement. Al spoke to James Pendleton and Amy Carranza, Backflow Program for Corpus Christi, who stated that the testing issue has been tabled and there are no expected changes to Corpus Christi's testing requirement. Biannual testing was an option, but was not considered.

Update on testing for BPAT License

Joseph Hildenbrand

Mr. Joseph Hildenbrand, TCEQ Occupational Licensing, presented an update outlining the process of developing a standardized examination for the backflow prevention assembly tester (BPAT) license. This is meant to establish an objective independent measurement of competency consistent with job task analysis outcomes under TCEQ oversight. A letter will be sent to qualified subject matter experts (training providers, regulatory agencies, field personnel, public water suppliers), asking them to submit résumés expressing interest to be involved in this process and outlining their qualifications. Three meetings will be held with a successively smaller number and more focused group of attendants at each meeting. At this point, the meetings will be as follows:

Meeting 1: This workgroup meeting will consist of updating a list of tasks created in 2004 which are performed by BPATs, determine which tasks are critical to the license, and make any necessary changes. To ensure the task list and criticality assessment is representative of the industry tasks, qualified BPAT core training providers and instructors should attend this first workgroup meeting. Representatives from the State Fire Marshal's Office, Texas State Board of Plumbing Examiners, and utilities may also attend.

Meeting 2: This workgroup meeting will be to select exam questions from a question bank to create the exam. It is preferable to create multiple exams from this question bank. Questions selected should include references to the core training materials indicating where the material of

each question is discussed, and the answer provided. Due to the sensitive nature of the examination materials to be discussed at this meeting, only qualified individuals who currently teach the BPAT core training course and/or are responsible for developing BPAT examinations should attend this meeting.

Meeting 3: This workgroup meeting is to establish uniform procedures for training providers to proctor and evaluate with consistency the BPAT practical skills examination. To assist with developing procedures for the practical examination, individuals currently administering and/or developing procedures for the BPAT practical skills examination should attend this meeting. Other important issues to discuss at this meeting are: What is considered failing the BPAT exam? How many times can someone retake the test? etc.

HBVB for pool fills on a float with a submerged inlet

Bruce Rathburn

Mr. Bruce Rathburn, San Antonio Water System, discussed the issue of people using a Hose Bib Vacuum Breaker (HBVB) on the fill line for a swimming pool with a float valve. This puts the HBVB under continuous pressure which makes it the incorrect backflow preventer for this hydraulic condition, and can cause the device to fail. Referral to the ASSE Standard for the correct use of a HBVB shows that it cannot be under constant pressure.

Detecting % lead with Lead Test Kits

Al Fuentes

A Customer Service Inspector (CSI) posed the question: Are there kits out there that detect % lead or only the presence or absence of lead? It is assumed that if the test is negative then either there is no lead present or if lead is present, the levels are below 8% for the pipes and fittings and 0.2% for the solder and flux. The committee did recommend that a CSI takes several tests.

According to the manufacturer's specifications, the Lead Check Swabs will react with any lead content over 1% and turn red, therefore they cannot be used for determining the lead content in brass, pipes, or fittings due to these fixtures having a lead content more than 1%. They are specified for lead-free (<0.2%) solder & metal alloys only.

It was also stated that if the water is allowed to run for a short period of time, then there is not enough contact time to allow the water to leach any lead from the plumbing and so the water will be lead free.

Containment as backflow prevention for irrigation systems?

Al Fuentes

The following question was raised: At a location with an irrigation system, if a backflow preventer is installed at the meter then does it comply with the regulation requiring that an irrigation system have a backflow preventer? This issue is currently on hold pending information from Ms. Candy Garrett, TCEQ Landscape Irrigation Program. The committee raised the following issues: thermal expansion must be considered, plumbing codes must be referenced, and the drop in pressure must be considered.

Drip-line irrigation

Larry Spain w/Toro

Ms. Deborah Phillips, TORO Area Business Manager, and Mr. Larry Spain, TORO Business Development Manager, presented to the subcommittee information on the use of Treflan as a root inhibitor in the TORO Drip Irrigation systems and how it should not be considered a health hazard requiring a reduced pressure backflow prevention assembly. Mr. Spain was referring to TCEQ regulation 30 TAC 344.51(c) *Irrigation system components with chemical additives induced by aspiration, injection, or emission system connected to any potable water supply must be connected through a reduced pressure principle backflow device.*

During the manufacture process, Treflan is embedded in the plastic that makes up the emitter. The Treflan is discharged in a vapor form around a small diameter of the emitter. In this form, Treflan does not dissolve into water. Mr. Spain presented a letter from the United States Environmental Protection Agency signed by Ms. Joanne I. Miller giving a Treated Article Exemption to the Treflan impregnated emitters. Mr. Spain also presented information stating that Treflan is a non-toxic herbicide which poses an extremely low hazard to birds, animals, and insects.

During further discussion, it was determined that:

- Treflan is used primarily in landscape irrigation with little use in agricultural applications.
- In a typical installation, there is one emitter per foot of water line.
- The flow of the vapor is multidirectional meaning the vapor flows away from the emitter toward the surrounding soil and also toward the inside of the water line.

No determination was made by this subcommittee regarding any changes to the required appropriate backflow preventer for systems using Treflan-embedded components. It should be noted that, per TCEQ regulations, irrigation system components with chemical additives connected to any potable water supply must be connected through a reduced pressure principle backflow device.

Using in-line booster pumps past a customer's meter

Al Fuentes

Mr. Al Fuentes presented the issue of using in-line booster pumps past a customer's meter when the use of a backflow preventer or proximity to elevated storage results in a loss of pressure. When the booster pumps engage, they cause a pressure drop in the main water line increasing the chance of backflow from surrounding connections. The subcommittee stated that:

- These pumps are used primarily on irrigation systems and they come on at night minimizing the loss of pressure in the main water line.
- Use of these pumps is not allowed per the Uniform Plumbing Code and the need to use them is usually addressed on a case-by-case basis.
- Section 290.44(d)(3) states that service connections that require booster pumps taking suction from the PWS lines must be equipped with automatic pressure cut-off devices so that the pumping units become inoperative at a suction pressure of less than 20 psi (thereby preventing a backsiphonage condition).
- If backflow is occurring then the pumps should be removed and a GST and pump installed.