

Texas Commission on Environmental Quality Cross-Connection Control Subcommittee

March 4, 2021

Microsoft Teams Webinar

Time: 9:00 – 12:30

Commencement

Ms. Katherine McGlaughlin

The meeting commenced on time with the general announcements and introductions by meeting participants.

The motion was then made to adopt the meeting summary. A second to the motion was heard and the vote to adopt was unanimous.

The next meeting of this Subcommittee will be held on June 3, 2021.

Update from Cross-Connection Control Program

Ms. Katherine McGlaughlin

Ms. Katherine McGlaughlin, TCEQ Cross-Connection Control Program, provided program updates.

Cross-Connection Control Program surveys continue at public water systems that have been identified by TCEQ regional investigators as benefitting from this form of technical assistance. At this time, there are 4 candidates identified that would benefit from program surveys. Suggestions for systems to receive surveys can be submitted to the TCEQ for issues such as: staff turnover, customer complaints, a lack of a Cross Connection Control Program, and others.

Regulatory guidance (RG) documents are in the process of being revised. The program will be reaching out to the previously established RG revision teams.

Mr. Charles Middleton, TCEQ Cross-Connection Control Program, provided follow-up information from a previous meeting topic. Previous meeting discussions revolved around certain testers utilizing nonpotable gauges on potable lines that led to fire suppression systems, as well as public water suppliers using mislabeled pipe for potable water. An email was issued with the assistance of the Occupational Licensing (OL) Division to communicate with trainers and licensed backflow prevention assembly testers (BPATs) to inform that gauges are determined by the type of water supplying the backflow prevention assembly. The OL is researching the ability to send this information directly to public water supply contacts and operators to further educate customers.

Update from Landscape Irrigation

Ms. Chelsea Atkinson

Ms. Chelsea Atkinson, TCEQ Office of Compliance and Enforcement, provided an update on the Landscape Irrigation Program (LIP).

The LIP continues to receive a high volume of calls and emails. Specifically, the program fielded 14 new complaints focused mainly around Central Texas and metropolitan areas. Mr. Abel stressed the importance of utilizing Landscape Irrigation General Complaint Form (TCEQ Form 10380). The form streamlines the investigation process and provides information regarding the complaint process. TCEQ Form 10380 is available on the TCEQ LIP website or directly at:

- tceq.texas.gov/assets/public/compliance/compliance_support/regulatory/irrigation/forms_li/10380.pdf

The next Irrigation Advisory Council (IAC) meeting is scheduled for May 6, 2021. The previous The IAC meeting for February was cancelled due to the recent winter storm.

Update from Occupational Licensing

Ms. Tamara Calhoun

Ms. Tamara Calhoun, TCEQ Occupational Licensing (OL), provided an update from the OL section.

In the 2nd Quarter (December 1, 2020 - February 28, 2021), 141 new Backflow Prevention Assembly Tester (BPAT) license applications were received along with 378 renewal applications. Out of the 141 tests administered, 65 passed., resulting in a 46.1% passing rate. This brings the total number of BPAT licenses in the State of Texas to 5,520.

In the 2nd Quarter, OL Received 45 new Customer Service Inspector (CSI) applications and 96 renewal applications. 78 tests were administered with 37 having passed, resulting in a 47.4% pass rate. This brings the number of total licensed CSIs to 2,117.

At this time, the OL Section is still handling exceptions and temporary license requirement changes. For a backflow prevention tester license, 24 hours of training still needed, but 8 hours hands on waived as certain classes continue to be remote.

Data Capture Workgroup Updates

Mr. Byron Hardin

Mr. Byron Hardin, Hardin and Associates, LLC, provided an update on the previously established workgroup. The workgroup generated a list of questions and comments that can be asked to help gather information, including:

- Tracking Failures by Assembly Type
 - Data capture should differentiate between “compliant”, “failed testable”, and “failed untestable”. This would warrant the need to train testers on why a backflow prevention assembly can fail.
 - The Workgroup noted that most public water suppliers only test assemblies protecting against health hazards. This may skew any data tracking to RPBA's, PVB's, and SVB's. In addition, there is no requirement for water suppliers to track failure rates, so water suppliers may be unable to supply this information. Third-party recordkeeping companies can use their resources to track this rate as tests are entered into software.
- Tracking Failure Causes
 - There are a variety of failure causes, such as missing test handles, missing test ports, incorrect installation, and others. The workgroup noted this needs to be expanded on – for example, if a tester cannot shut off the water supply for the backflow assembly test, the failure is caused by testing conditions, and not the backflow prevention assembly failure.
 - Tests can be recorded as “failed” with a list of reasons, such as:
Inoperable/missing/leaking shut off valve(s), missing test cock(s), water not on the system, cannot locate/no longer exists, noncompliance with local requirements, inaccessible test cocks or shut-offs, wrong shut-off valve for the connection (for

example, non-rising stem, NRS on shut-off valves for fire systems), assembly is buried in valve box, or not installed in accordance with code.

- As part of the data capture process, verbiage should encourage the tester should do everything possible to test backflow and confirm its operation. This process will differentiate failed tests caused by nonfunctioning assemblies and those that cannot be tested.
- Backflow Events related to Assembly Failure
 - At this time, the subcommittee group has no known instances of a complete assembly failure that is directly linked with a backflow event. As a result, confusion remains as to what constitutes a failure. The workgroup indicated a stricter definition of failure, or to expand on what a failed test really means. The workgroup noted that:
 - Data integrity, current remarks section is way too broad. Different testers will use different, ununified language to note the same or similar observations. Unified language or a drop down can help remove confusion.
 - Access to the data is currently broad and unprotected. Data must be protected from alteration and have validation to have integrity, meaning limited means of accessible people to change proven data. This is usually an issue for the water purveyor, in both paper or electronic formats.
 - Some testers possess confusion over a 10 day rule to submit a report that is not consistent across cross connection rules. This allows a tester to hold onto a report, failed or otherwise, for any amount of time. If an assembly fails, they are less likely to write it up that way when they turn the report days, weeks or months later. This also delays purveyor prevention and reaction times.
 - Some confusion exists over the “installed as per manufacturer recommendations and local codes” question across all spectrums. Does a “no” result in a failed test?
 - Paper forms have no restrictions to collect data, and can be too vague to support observations. Current Electronic Platforms follow paper guidelines, which are better for collecting specific data, but remain too vague to be specific/proven.
 - Water purveyors to lean on knowledgeable staff to enforce remarks or collect viable proven data of failed or passed assemblies.
 - The subcommittee should consider refine or expanding on what tester fraud is.
- Tracking current failures with Third Party Software
 - At this time, there are no regulations to require tracking failure rates. Filters can be applied to test results to ID what assemblies have failed. Certain third-party companies have already begun tracking this information with filtering options.
- Extracting Failure Information from Online Submittals
 - A public water supplier would need to request this information from the third-party recordkeeping vendor. This process would be voluntary as there are no requirements

to collect data from the TCEQ at this time. The workgroup would need a list of water suppliers with approval, then send notices requesting assistance in tracking failure information.

- Extracting Failure Information from Hard Copy Submissions
 - The workgroup noted this would be difficult information to collect. Public water suppliers would need to be convinced to voluntarily record the number of failures monthly/annually. A rule change in Texas Administrative Code to require this tracking would support cooperation through the state.
- TCEQ Tracking and Recording Failure Rates
 - A rule change in Texas Administrative Code Chapter 290 would be required to develop the failure tracking process on the state level. While potential rule changes are explored, local water suppliers can come up with a quarterly report to send into TCEQ from an approved filter that will work with all online platforms.
- Should the PWS be required to submit failed BPAT results?
 - At this time, there is nothing in current regulations requiring a PWS to track failed BPAT results, and there shouldn't be. Since public water suppliers vary regarding testing requirements, the resulting data would not be consistent from system to system.
 - The State can ask or audit anytime as part of an investigation or a cross connection control program survey. This could be part of a potential reporting system in the future.
- Additional Items or Changes needed on the TCEQ BPAT form
 - The workgroup explored potential changes to the TCEQ's backflow test and maintenance form to help track failed backflow prevention assemblies. There's already a box for PASS / FAIL on the form. Educating tester's to include fail information if they perform an onsite repair should be stressed (As Mr. Baird suggests in his email). This will aid in tracking a PASS / FAIL rate
 - In regards to why a backflow prevention assembly failed, no additional changes to the BPAT form would be needed. The "repairs and materials used" field is already on the form. For example, if the #1 check was replaced, then the old check failed. If the tester flushed and re-tested, then there was debris in the assembly. The % of repair rate is also an excellent indicator to they "why" a backflow preventer failed.
- Additional Evaluations to Improve Tracking BPA Issues
 - The workgroup explored ways to improve failure reporting with training across the form submission process. These methods included:
 - Create additional explanation regarding installation issues and what constitutes a correct installation.
 - Train testers on the verbiage in classes and what each most common failure represents.

- Confirm “No” on manufacturer installation question as a failure, even if values pass. This way the water purveyor can decide next steps, and tester can expand on what Failed on the test.
- Expand or confirm the 10 day rule across all rules so that the purveyor has the best chance to receive Failed information. At this time, only landscape irrigation backflow prevention assemblies are subject to this 10 day rule.
- Train water purveyor staff on reasons backflow assembly fail.
- Make additional comments or remarks optional, only after one of the main options from a dropdown is chosen.
- Electronic recordkeeping companies can require tester to choose a reason for failure either as an option or restriction. Electronic platforms have the means to have choices be tabulated for industry information.
- Require gauge calibration companies to notate potable or non-potable at each calibration on the form.
- Assign fire backflow testers to identify a fire license type associated with the assembly location. Improperly licensed individuals are testing fire backflow and cannot correctly determine a failed status.
- Outline tester fraud protection options for water purveyors, and train testers on how fraud is defined.
- Encourage feedback from testers and instructors to continue to refine the tracking process.

Research continues on this topic, and how these suggestions can be implemented with third-party tracking software.

CSI Training Workgroup Update

Mr. Adam Smith

This topic was tabled for future discussion.

Current Events Discussion

Group Discussion

Mr. Kenneth Dykes, Response and Capacity Development Team, introduced the topic by discussing previous backflow events. The Response and Capacity Development team is frequently asked to assist and provide technical assistance in the State during disasters. Mr. Dykes, having observed and provided technical assistance on site during previous events, shared observations with the subcommittee on common issues he observes. Some of these noted observations included that, to some extent, these events are preventable. Often times, some water purveyors adopt third-party recordkeeping software to make up the bulk of their program, with little enforcement or follow through. The subcommittee noted that recordkeeping software, while effective at generating and tracking information quickly, is a tool for parts of the program. Some water purveyors have an adopted plumbing code, but because they lack enforcement powers, are not enough to enact a cross connection control program. In addition, often times the responsibility for the backflow prevention program falls onto plumbing inspectors, who are already busy with enforcing plumbing rules. Roping in other departments can lighten this load and get more staff assisting with operating the program. Several items were proposed to add to regulatory guidance documents:

- Train additional staff to be knowledgeable in backflow prevention.
- Communicate, coordinate, and cooperate with other departments to support a cross connection control program.
- Emphasize that recordkeeping software is not the only part of a backflow prevention program.
- Develop an emergency response plan for potential backflow events.
- Emphasize education with customers and amongst water supplier staff.
- Ensure local rules grant the water purveyor enforcement powers.
- Note that adopted plumbing codes are not enough to constitute local rule requirements.

Following the end of this discussion, the subcommittee noted resources are available to water purveyors. Technical assistance is available through the TCEQ with analyzing cross connection control programs. Communication, and not generalizations and assumptions, between departments can improve backflow response. Follow-ups to CSIs and potential hazards that exceed TCEQ's minimum rule requirements are useful to improving a cross connection control program. Active enforcement and follow-through is a necessary part of having an effective cross connection control program that can prevent future backflow events from occurring.

Mrs. Katherine McGlaughlin, Response and Capacity Development Team, spoke in regards to the February 2021 Winter Freeze event. Temperatures across the state of Texas plunged for several days straight, resulting in frozen water lines and low-pressure events, amongst other impacts. She noted that the TCEQ received a variety of customer calls with concerns over their backflow preventers that were not winterized, resulting in bursts, leaks, and potential backflow conditions. Mrs. McGlaughlin has added this as a potential topic to further improve RG-478 "Establishing and Managing an Effective Cross Connection Control Program", emphasizing the importance of winterizing backflow preventers. Following this discussion, Mrs. McGlaughlin inquired as to the public water response to the winter event as it related to backflow prevention.

Mr. James Cantrell, San Antonio Water Supply (SAWS) indicated a voluntary boil water notice was issued. A notice to temporarily suspend backflow testing was also attempted. The subcommittee noted this would need to be separate from the boil water notice and present in a local rule/regulation. Since this is not expressed in Texas Administrative Code, this will allow local purveyors to be flexible with enforcing this type of potential testing suspension rule. Members of the subcommittee expressed water purveyors may be hesitant to go beyond the rule requirements in boil water notices like this. Mr. James Garvin, New Braunfels Utilities, noted that storage tanks were drained quickly due to recommendations to drip faucets to prevent frozen lines. He also observed that the freeze was intense enough to freeze both lines and the body of the backflow prevention assembly.

Possible Topics for Next Meeting

Suggested topic for the following Subcommittee meeting were discussed. The Subcommittee members expressed interest in discussing ongoing legislative issues, and what proposed bills during the legislative session may impact backflow.