Texas Commission on Environmental Quality

Cross-Connection Control Subcommittee

December 1, 2010

Meeting Summary

Welcome/Introductions/Announcements:

- The subcommittee meetings in 2011 will take place on Tuesdays and will be held on March 1, June 7, September 6, and December 6.

Vote to adopt minutes from last meeting:

The meeting summary from the September 1, 2010 meeting was adopted without discussion.

Updates from last meeting:

Bypass Arrangements at Critical Facilities – Coordination with Councils of Government (COGs)

At the June 2, 2010 meeting, subcommittee members discussed the difficulties involved in shutting off the water to a critical facility during the test of a containment backflow prevention assembly if the facility has just one service connection and does not have a bypass arrangement for the backflow prevention assembly. Subsequent discussion on this topic identified increasing public awareness on this topic as one approach to addressing this issue.

Al Fuentes, TCEQ Water Supply Division, presented a summary of the organizations he has contacted regarding this topic. Mr. Fuentes spoke with the American Water Works Association (AWWA), Texas A&M University Engineering Department, and the International Association of Plumbing and Mechanical Officials (IAPMO). Personnel at AWWA and IAPMO are aware of this issue and recommend parallel installations at critical facilities. Additionally, Mr. Fuentes will contact the Texas Board of Professional Engineers and the Joint Commission.

Draft Guidance Document on Gauge Accuracy Checks/General Information on Regulatory Guidance Documents

The draft guidance document on gauge accuracy checks prepared by Mr. Bill Hamrick, ATB Services, Inc., and Mr. Charles Ansley, Metroplex Training, is currently under peer-review by TCEQ staff. TCEQ staff apologize for the delay in proceeding with the publication of this guidance document.

A brief presentation on regulatory guidance documents followed. The discussion included the following questions and answers:

- What is a regulatory guidance document (RG)? An RG is written to provide additional guidance to TCEQ regulations. It is not intended to substitute for the

regulations, nor does it establish requirements more stringent than what is found in the regulations.

- What weight does an RG hold? An RG should be considered as a recommendation, rather than a requirement in the sense that it includes procedures and such that help entities in following the rules, but do not supercede the rules.
- What ramifications does a public water system face if the recommendations found in an RG are not followed? TCEQ investigators may not issue alleged violations for failure to follow the procedures or other recommendations found in an RG. However, TCEQ staff hopes that RGs serve as useful tools for water system staff, rather than something to be ignored or avoided.
- What is the process for an RG to get created and published? RGs are prepared by TCEQ staff. A TCEQ staff member needs to initiate the process by completing the necessary Agency Communications (AC) forms and conferring with an account coordinator in AC. A draft of the RG must be created and peer-reviewed. Then the draft RG is submitted to AC and a technical editor is assigned. The editor works together with the author of the document to ensure it is grammatically correct and easily readable by the intended audience. The document is then sent out one last time by AC to all offices of the agency for review and comments. Once these comments have been addressed by the author and the editor, the document is ready for publication.

A discussion of the General Information (GI) document on backflow titled "A Consumer's Guide to Backflow Prevention in Texas" (GI-411) followed. The importance of public education on cross-connection control and backflow prevention was demonstrated in several examples.

Many comments were made regarding TCEQ requirements for backflow protection of irrigation systems. One example was referenced in detail: a cross-connection incident in Idaho that resulted in 5 people becoming sick. This incident was documented in Issue 53 of the Idaho Drinking Water Newsletter. Jerry Lewis, Sundance Training, raised the issue of chemical additives to drip irrigation systems and pointed out that more and more drip irrigation systems are being installed. A recommendation was made that the subcommittee revisit this issue at the next meeting and that a presentation be given on this topic.

Teaching University of Southern California (USC) 10th Edition Field Test Procedures

Barbara Mendieta, Program Specialist with TCEQ's Training Evaluation and Exam Development Program, spoke about TCEQ's policy that requires Backflow Prevention Assembly Tester (BPAT) training providers to teach USC 10th Edition Cross-Connection Control Manual Field Test Procedures. Ms. Mendieta clarified that TCEQ does not require BPAT training providers to provide the USC 10th Edition Manual to every student. However, if no manual is provided, information regarding how to acquire a USC 10th Edition manual must be provided. TCEQ Training Evaluation and Exam Development Program personnel caution all training providers to observe copyright laws and restrictions.

All BPAT training classes are required to be re-approved. BPAT training providers were required to submit information to the TCEQ regarding their classes. Training Evaluation and Exam Development Program personnel are preparing a letter to all BPAT training providers regarding the re-approval process.

A discussion regarding TCEQ evaluation of the reciprocity of licenses issued in other states followed.

Auxiliary Water Supplies and Premises Isolation

Danny Lytle, Water Protection Supervisor, City of Austin, gave a presentation on auxiliary water supplies and premises isolation. Mr. Lytle's presentation included information from the EPA Cross-Connection Control Manual regarding the responsibility of the water purveyor to ensure that water quality delivered to customers is in conformance with the EPA standards at the source. Mr. Lytle discussed the differences between a program which focuses on "fixture outlet protection" and one that focuses on "containment." Mr. Lytle presented the 13 items that the EPA manual identifies as being required for a complete cross-connection control program.

Mr. Lytle also discussed the TCEQ regulations for cross-connection control and backflow prevention found in Title 30 of the Texas Administrative Code, Chapter 290. Specifically, he focused on the water purveyor's responsibility to determine what an adequate internal cross-connection control program is. An inspection or survey must be performed in order to document the adequacy of an internal program.

Lastly, Mr. Lytle discussed some of the requirements of the City of Austin's Cross-Connection Control Program. The City of Austin requires all water customers with any auxiliary water system on site to have a containment backflow preventer at the water meter and to have the site tested periodically to confirm the potable and auxiliary water are not inter-connected. Auxiliary water is defined as any pressured water supply on or available to the premises other than the Austin Water Utility's approved public potable water supply. Mr. Lytle included tables from the Austin Water Utilities Criteria Manual which specifically identity the type of backflow prevention assemblies required at the meters and point of supply.

Discussion following the presentation included a suggestion that the City consider chemical testing of the water at sites where auxiliary water supplies are located. Other water purveyors have found that chemical testing for conductivity, total dissolved solids, and chlorine residual can also be a useful way to confirm the potable and auxiliary water are not inter-connected. Participants also discussed how incentives for water conservation are fueling the development of more auxiliary water supplies.

Summary of Sunset Advisory Commission Staff Report on the TCEQ

Joel Klumpp, TCEQ Water Supply Division, presented a summary of the Sunset Advisory Commission Staff Report on the TCEQ. His presentation included the following information from the report:

- TCEQ at a glance: information regarding the structure of the agency, number of staff, and funding.
- Issues and recommendations by the Sunset Advisory Commission:

  Issue 1: Texas Has a Continuing Need for the Texas Commission on Environmental Quality.

  Key Recommendations:

  - Continue the Texas Commission on Environmental Quality for 12 years.
  - Transfer the authority for making groundwater protection recommendations regarding oil and gas activities from TCEQ to the Railroad Commission.

Issue 2: TCEQ's Public Assistance Efforts Lack Coordination and Focus.

Key Recommendations:

- Charge the Executive Director with providing assistance and education to the public on environmental matters under the agency's jurisdiction.
- Focus OPIC's efforts on representing the public interest in matters before the Commission.
- Require the Commission to generally define, by rule, factors OPIC will consider in representing the public interest and establish OPIC's priorities in case involvement.

Issue 3: TCEQ's Approach to Compliance History Fails to Accurately Measure Entities' Performance, Negating Its Use as an Effective Regulatory Tool.

Key Recommendations:

- Remove the uniform standard from statute and require the Commission to develop a compliance history method to be applied consistently.
- Remove the requirement to assess the compliance history of entities for which TCEQ does not have adequate compliance information.
- Expand the statutory components to allow TCEQ to consider other factors in evaluating compliance history.

Issue 4: TCEQ's Enforcement Process Lacks Public Visibility and Statutory Authority.

Key Recommendations:

- Require the Commission to structure its general enforcement policy in rule and publically adopt its resulting enforcement policies.
- Increase TCEQ's administrative penalty caps.
- Authorize TCEQ to assess administrative penalties for dam safety violations.
- Authorize TCEQ to consider Supplemental Environmental Projects for local governments that would improve the environment.

Issue 5: TCEQ Does Not Have the Tools Necessary to Effectively Protect Surface Water Availability During Drought or Emergency Conditions.

Key Recommendations:

- Clarify the Executive Director's authority to curtail water use in water shortages and times of drought.
- Require water rights holders to maintain monthly water-use information and allow the Commission to access that information upon request.
- Authorize TCEQ to require implementation of drought contingency plans during times of a potential water shortage.
- Require TCEQ to evaluate the need for additional watermaster programs.

Issue 6: Gaps in Petroleum Storage Tank Regulation and Remediation Fee Expiration Threaten the State's Ability to Clean Up Contaminated Sites.

Key Recommendations:

- Require previous tank owners or operators to share responsibility, as appropriate, for contamination from leaking PSTs.
- Prohibit delivery of certain petroleum products to uncertified tanks and provide for administrative penalties.
- Reauthorize the PST remediation fee, change the current fee levels to caps, and authorize the Commission to set fees in rule.

Issue 7: TCEQ Lacks Guidance on How to Fund the Texas Low-Level Radioactive Waste Disposal Compact Commission.

Key Recommendation: Clarify the Compact Commission's funding mechanism.

Issue 8: The Statutory Cap on Emissions Limits TCEQ's Ability to Adequately Fund the Title V Air Permit Program.

Key Recommendation: Authorize TCEQ to administratively adjust the annual emissions tonnage cap for the Air Emissions Fee when necessary to adequately fund the Title V Operating Permit program.

Additional Issue: Water and Wastewater Utility Regulation Transfer Supplement to the Sunset Staff Report on Public Utilities Commission (PUC): The State Could Benefit From Combining Regulatory Functions Related to Gas and Water Utilities in the Public Utility Commission.

Key Recommendation: Transfer responsibility for regulating water and wastewater rates and services from TCEQ to PUC.

Additional Issue: On-site Wastewater Treatment Research Council: Texas Does Not Need a Separate, Stand-Alone Council to Fund On-site Sewage Research.

Key Recommendation: Abolish the On-site Wastewater Treatment Research Council and transfer authority to award grants for on-site sewage research to the Texas Commission on Environmental Quality.

The Sunset Advisory Commission Staff Report on the TCEQ can be accessed online at:

http://www.sunset.state.tx.us/82ndreports/tceq/tceq_sr.pdf.

Internal Isolation Programs

Fred Baird, Bac-Flo Unlimited, gave a presentation on a Cross-Connection Control Program jointly administered by a water purveyor and a city's plumbing inspection department. In this example, the water purveyor developed a containment program and maintains records for backflow prevention assemblies used for premises isolation. The plumbing inspection department developed a fixture outlet protection program and maintains records for backflow prevention assemblies used for fixture outlet protection.

Recently, the plumbing inspection department chose to suspend their fixture outlet protection program. The suspension of their program included ceasing to mail notices to customers with backflow prevention assemblies used for fixture outlet protection reminding them of the need for an annual test of the assemblies, and ceasing to maintain a database of the backflow prevention assemblies used for fixture outlet protection and the dates these assemblies were tested.

City customers and personnel involved in the water purveyor's Cross-Connection Control Program expressed concern to city officials regarding the suspension of the plumbing inspection department's fixture outlet protection program. Specifically, city officials were made aware that while the potable water distribution system was protected by the water purveyor's containment program, students/patients/employees at facilities which require fixture outlet protection would not be protected from potential backflow incidents if internal backflow prevention assemblies were no longer tested and maintained.

The city chose to temporarily reinstate the fixture outlet protection program, and will coordinate with the water purveyor to transfer this program to the water purveyor at some point in the next year.

Efforts are being made to revise the plumbing codes which govern the activities of plumbing inspection departments. Currently, the plumbing codes require testing of all

backflow prevention assemblies, but do not specifically require plumbing inspection departments to maintain records of the testing of assemblies. The plumbing codes may be modified to clarify that plumbing inspection departments must ensure that records for the testing of backflow prevention assemblies within their jurisdiction are maintained.

Funding Options for Cross-Connection Control Programs

Byron Hardin, Hardin & Associates Consulting, LLC, gave a presentation on funding options for cross-connection control programs. There are a variety of means in use by public water systems to fund their programs. When establishing a funding mechanism, all of the components of the system's cross-connection control program should be taken into account. These components include: inspection services, ordinance and code development, enforcement, records and data management, development of an incident response plan, and quality control measures.

According to an American Backflow Prevention Association survey conducted in 1999, the average annual cross-connection control cost per connection for systems with 10,000 people or fewer was $3.40; the average annual cross-connection control cost per connection for larger systems was $1.28.

Funding Options can be split into five categories:

1. User Fee Pay System: which could include fees generated from tester registrations, test report booklet fees, and permit fees for each assembly.
2. Tester Fee System: where each tester is assessed a fee by the local jurisdiction on each assembly tested.
3. Fines and Penalties: which could include water meter disconnect and reconnect fees and municipal court fees for tickets and fines.
4. Water Rate Adjustments: establish an additional water utility fee for facilities which require the installation of backflow prevention assemblies or develop a monthly recurring fee for all customer accounts.
5. Building Permit Fees: these fees include plumbing related fees for backflow prevention assembly installation on new and existing facilities, Customer Service Inspection fees, and plan review fees.

Overview of TCEQ's Small Business and Local Government Assistance Program

Amy Rivera, TCEQ Small Business and Local Government Assistance (SBLGA) Section, gave a presentation on the SBLGA Program. SBLGA programs offer technical assistance, one-on-one help, and compliance tools. Individuals and businesses can contact the SBLGA without fear of compliance repercussions since all discussions with SBLGA personnel are confidential.

SBLGA customers include small businesses and industry, local governments, utilities and service providers, associations, and other agencies. A small business is defined as any independently owned and operated company with 100 or fewer employees across all locations. A small government is defined as a city with a population of 50,000 or fewer, a county with a population of 100,000 or fewer, or an independent school district with 100,000 or fewer students.

SBLGA programs include a free and confidential hotline staffed Monday-Friday from 8:00 AM – 5:00 PM. The hotline telephone number is 800-447-2827. Information can

also be found online at www.TexasEnviroHelp.org. Another program is the Compliance Commitment Program, or "C2 Program." This program offers site visits by professional consultants who will perform an audit to determine compliance with all TCEQ regulatory requirements. Entities that receive a C2 Certificate are exempt from one year of compliance inspections in the area addresses by the program. The EnviroMentor program offers free technical assistance from a variety of volunteer professionals, including consultants, engineers, lawyers, and operators. The Compliance Advisory Panel is an opportunity for small businesses and local governments to provide input to TCEQ. Some of SBLGA's information resources are the quarterly publication *The Advocate*, compliance checklists, workshops and seminars, and many publications and guidance documents. Additional information on all of these programs can be found at the SBLGA hotline or by calling Ms. Rivera at 512-239-2562.

Landscape Irrigation Regulatory Requirements

Candy Garrett and Richard Allen, TCEQ Landscape Irrigation Program, addressed questions regarding the TCEQ's regulations for landscape irrigation found in 30 TAC Chapter 344. 30 TAC §344.65(3) requires irrigation systems supplied with reclaimed water to be installed using purple components. However, there is nothing in Chapter 344 that restricts the use of purple components from being used in irrigation systems supplied with potable water. Members of the Cross-Connection Control Subcommittee agree that using purple components for irrigation systems supplied with potable water should be avoided due to the potential for creating a cross-connection between potable water and reclaimed water at some point in the future.

30 TAC §344.24(C) requires municipalities with a population of 20,000 or more and a water district that chooses to implement a landscape irrigation program to verify that the irrigator that designs and installs an irrigation system holds a valid irrigator's license and has obtained a permit before installing a system within its territorial limits or if a municipality, its extraterritorial jurisdiction. Inspectors must verify that the design and installation meet the requirements of this chapter and local ordinances or rules that do not conflict with this chapter, or that are more stringent than this chapter.

Announcements:

The Texas Damage Prevention Summit will be held January 31 – February 2, 2011, at the Embassy Suites San Marcos Conference Center. More information can be found at http://summit.digtess.org.

The 2011 American Backflow Prevention Association (ABPA) Education Conference and Trade Show will be held May 23-25, 2011, at the Hyatt Regency Hotel in San Antonio, Texas. More information can be found at: http://abpa.org/.