

Waterworks Advisory Committee – Cross-Connection Control Subcommittee

Henrico County Water Treatment Facility

March 18, 2020, 9:00 am

Meeting Summary

WAC Members: Steve Herzog (Hanover County Public Utilities, representing the Virginia Water Environment Association); Russ Navratil (Henrico County, representing Virginia Section American Water Works Association); Skip Harper (Master Plumber, Dept. of Housing and Community Development, representing the VA Plumbing and Mechanical Association (participated by phone));

Participating by phone: Tom Fauber (James City Service Authority, representing the Virginia Chapter of the American Backflow Prevention Association (ABPA)); Bob Edelman (Director of Technical Services, ODW); Nelson Daniel (ODW, Director of Program and Policy), Jeremy Hull (Field Office Director, ODW).

Not participating: Roger Cronin

1. Overview of a performance based approach to cross-connection control (see numbered paragraphs in attachment)
2. Discussion about regulatory requirements for a performance based approach with comments/feedback from subcommittee members
 - a. Discussion about requirement that owner review the CCCP document every year – suggestion that ODW change the minimum review period to every five years. The owner would review the CCCP document at least every five years, and if the owner makes changes, they would submit to ODW for approval.
 - b. CCCP must comply with USBC – what does this mean? USBC is much broader – should it be restricted to certain sections? This proposed citation in the WW Regs (12VAC5-590-600 B) is good. The focus is on containment.
 - c. Looking at item 6 – we know the containment device is required by the waterworks and to some extent under the control of the waterworks, suggesting that the waterworks exercises control over downstream devices. In the case of some irrigation and fire sprinkler systems, we understand that some containment devices are downstream of the point of demarcation.
 - d. 100% testing of all containment devices is a goal. The reality is that not all devices can be tested. Concern that without an inventory of all containment devices we have a known high hazard (in the case of irrigation systems and some fire suppression systems), and won't track testing. The reality is that with an inventory of containment devices, there are devices that are out there that the waterworks doesn't even know about.
 - e. Suggestion that the requirements specify testing for all containment devices – proposed language addresses containment.
 - f. Concern that waterworks understand they are liable for contaminants entering the distribution system through a cross connection.
 - g. Everyone agrees with item 7 – making testing requirements clear.
 - h. Public education is an option, but it does not replace anything. ABPA doesn't think it should be a substitute. No issues as long as it is not a replacement for testing high-hazard. Using "may include" will address concerns with proposed amendments.

- i. Hanover has concerns about the requirement to track testing for individual residential structures.
 - i. ODW's proposal does not specifically call for tracking. The paragraph about maintaining records is not in this proposal – it is up to the owner to decide if this step is necessary to meet other requirements in the regs. Reading it all together, it says these are requirements, but it's up to the waterworks to do tracking and recordkeeping.
 - ii. ABPA has concerns about this – they are strongly against non-tracking of high hazard conditions.
 - j. A performance-based requirement is not prescriptive – it is up to the owner to decide what methodology they want to follow. ABPA is concerned that ODW is taking on liability for contamination via backflow.
 - k. If a device fails, the waterworks owner is going to require the device owner to fix it. If the device owner does not fix it, the waterworks would stop service. The device tester will want to repair the device and get the business, so device owners are likely to get the devices repaired.
 - l. How does ODW determine compliance? Two ways: compare what waterworks is doing to the regulations or to the approved plan – we generally try to compare to the waterworks' plan. In Hanover, ODW goes to plan and audits – looks at requirements in plan, then looks to see if records meet plan. So this is a two-step process: ODW approves the plan, then audits/evaluates the plan and records.
 - m. Discussion about striking, "G. The owner shall maintain an inventory and records of testing, repairs, and maintenance of all ... devices installed under 12VAC5-590-610."
 - i. If ODW includes a requirement for inventory and records of testing, but exclude records of residential systems, this would likely exclude records of irrigation systems and fire protection systems – sticking strictly with single-family residential. Richmond area waterworks have no issue tracking high hazard, but want the option to exclude records of residential systems.
 - ii. Discussion: Opinion that residential customers (meaning homeowners in single-family homes) are more likely to have a high level of awareness of cross connections and problems with installed devices than commercial, multifamily and rental customers.
 - iii. Discussion: How many residential irrigation systems have the ability to put chemicals on the lawn? Residential customers are more likely than other customers to use irrigation systems to spread lawn chemicals. One contractor makes all their irrigation systems capable of spreading lawn chemicals.
 - iv. ABPA reiterates their strong objections to removing tracking requirements for residential systems, saying that all industry and government guidelines have testing and record keeping requirements for residential high-hazard.
 - n. Residential fire suppression systems are required to have piping that meets cold water distribution pipe standards (in the building code).
 - o. No issues with Item 10.
 - p. Item 11 – no changes to containment requirements.
3. The next step is to share proposed language with the workgroup for consideration. We propose to set up another meeting to review the more detailed proposal. We can send a proposal to the group, but due to the public meeting requirements, we cannot have an email exchange among all workgroup members. Members will let Bob know about the need for another meeting.

Cross Connection Control Requirements
Summary of Revised Proposal dated 3/12/2020

Description of Performance-Based Approach

Each waterworks owner must establish and enforce a Cross Connection Control Program (CCCP) in compliance with the USBC, focusing on containment devices. The performance based approach specifies that the CCCP must ensure assessments of consumer water systems and testing, maintenance and repairs to assemblies, elimination methods, and devices required for containment. The owner could optionally use a public education program to prompt consumer self-assessments and awareness of cross connections.

Summary of regulatory text, including changes

1. Various edits to definitions.
2. The owner must establish and enforce a CCCP. The owner must have a CCCP document and submit it to ODW for review and approval.
3. The owner will review the CCCP and the CCCP document annually and update as necessary
4. CCCP must comply with the USBC.
5. CCCP shall ensure complete assessments of every consumer water system and safeguards to prevent waterworks contamination from backflow.
6. CCCP shall ensure testing, maintenance and repairs of assemblies, elimination methods, and devices required for containment.
7. The USBC requires testing after initial installation, repairs or relocation and annually thereafter.
8. The CCCP shall establish procedures for completing and monitoring operational tests and other evaluation procedures.
9. The CCCP may include a public education program to prompt consumer self-assessments and awareness of cross connections.
10. The CCCP must provide a method to discontinue or refuse water service to consumers under certain conditions.
11. Containment requirements per Section 610 are unchanged.
12. Section 610 E restored the following to the list of facilities requiring containment: Highrise buildings (four or more stories), Multiuse commercial, office, or warehouse facilities.
13. Section 630 changed by inserting “backflow prevention” in front of each mention of “device”.
14. Table 630.1 Added lawn irrigation systems, and fire sprinkler systems to the list of examples of high hazard. Deleted nontoxic chemicals and nonhazardous chemicals from the list of examples of low hazard.