DRAFT

Waterworks Advisory Committee Meeting Minutes

In Person: Fairfield Library, 1402 Laburnum Ave, Richmond VA 23223

10:00 am, Wednesday, March 13, 2024

Members Present: David Van Gelder (Chair), Water Operator; Skip Harper, Virginia Plumbing & Mechanical Inspectors Association; Steven Herzog, PE, VWEA; Chris Pomeroy, Virginia Municipal Drinking Water Association; Ignatius Mutoti, VSPE; Tom Fauber; VA ABPA; Mark Estes, VRWA, Joey Hiner, VA SERCAP

Members Absent: Geneva Hudgins, VA AWWA; Russ Navratil, VA AWWA; Ben Barber, Virginia Health Catalyst; Whitney S. Katchmark, PE Principal Water Resources Engineer; Caleb Taylor, VA Municipal League; Anthony Morris, DEQ; Jesse Royall, Sydnor Hydro; Andrea Wortzel, Troutman Pepper

Stakeholders: Christopher Gill, William J. Mann, Jr., MD, Chris Harbin, Ivy Ozman, John Kingsbury

Office of Drinking Water (ODW) Staff: Dwayne Roadcap, Aaron Moses, Christine Latino, Grant Kronenberg, Robert Edelman, Jane Nunn, Steve Kvech, Jeremy Hull, Dan Horne, Jack Hinshelwood, James Reynolds, David Dawson, Julie Floyd, Bailey Davis

Meeting Overview

The Waterworks Advisory Committee (WAC) met in person at the Fairfield Library, 1401 N. Laburnum Avenue, Richmond, VA. Stakeholders, ODW staff, and the public also joined in person and by electronic communication means via WebEx. Grant Kronenberg called the meeting to order at 10:05 a.m. and reviewed the agenda.

It was established that there were not enough members in person to establish a quorum.

Review and Adopt Minutes of Meeting

Since there were not enough members to establish a quorum, the WAC could not take any official action to adopt the minutes from the WAC's December meeting.

Waterwork Regulations

Jane Nunn presented an update on the draft proposed amendments to the Waterworks Regulations. The WAC members present provided feedback on the draft proposals.

There are now 13 substantive changes, 3 technical changes, and a new item #12 being presented for the WAC's consideration. Jane presented the proposed amendments to the WAC, noting that the WAC will determine whether to approve the proposed changes and whether it needs to establish subcommittees to discuss any of the proposed changes.

1. Substantive change – To amend the definition of "operator" in 12VAC5-590-10 to clarify it is someone who has a license "with a classification equal to or higher than the classification of the waterworks or water treatment plant being operated" found in -590-461 B and C. Proposed language: "Operator" means any individual with a valid license as a Waterworks Operator issued by the Virginia Department of Professional and Occupational Regulation with the requisite classification and skills employed or appointed by any owner, who is designated by the owner to be the person having full responsibility for the waterworks operations and any subordinate operating staff. The individual may be a supervisor, a shift operator, or a substitute in charge, and have duties including testing or evaluation to control waterworks operations. Not included in this definition are superintendents or directors of public works, city engineers, or other municipal or industrial officials whose duties do not include the actual operation or direct supervision of waterworks.

   Ms. Nunn stated that DPOR will not be changing its regulations. The WAC members did not express any questions or concerns.

2. Substantive change to both 12VAC5-590-200 and -260

   12VAC5-590-200 A. Construction permits for new waterworks or for changes, alterations, or improvements to existing waterworks are issued by the commissioner, but all requests for a construction permit are directed initially to the department. The procedure for obtaining a construction permit includes the following steps: 1. Owners shall notify the department of all proposed construction projects, except distribution main projects that are permitted under the provisions of a general permit for distribution mains (see 12VAC5- 590-300), or when the project is for the extension of water distribution piping having a diameter of eight inches or less and serving less than 15 connections (see § 32.1-172 A of the Code of Virginia). 2. An owner intending to make changes, alterations, or improvements to a waterworks for which a construction permit has been granted shall apply for an additional or amended permit. 3. The submission of a Waterworks Construction Permit Application to the department on a form approved by the department. 4. Based on the application received, the department shall notify the owner if a preliminary engineering conference is required. A preliminary engineering conference shall be required for projects proposed using alternative delivery methods authorized under § 2.2-4380 of the Code of Virginia. The preliminary engineering conference shall define the scope of the project, project phasing, milestones, and deliverables. An evaluation procedure shall be agreed upon and the conference shall be documented. 5. The submission of preliminary engineering or intermediate design reports if required by the department. The need for and scope of the reports shall be established during the preliminary engineering conference. 6. The submission of a waterworks business operation plan that demonstrates the waterworks' TMF capacity to operate and maintain a waterworks. The waterworks business operation plan consists of four primary components: a. Waterworks information that includes ownership data, a waterworks facility description, operator

requirements, staffing needs, and staff training. 5 Item #2 cont. – 12VAC5-590-200 cont. -200 A proposed language and addition of -200 H (cont.) b. Management information that identifies critical business practices necessary for effective management and operation of the waterworks. Management information includes the requirements essential for managing and operating the waterworks and defines the processes, methods, and tasks necessary for complying with this chapter. c. financial information that identifies projects, considering the waterworks revenues and cash flow, which will be sufficient for meeting the cost of operation and maintenance for at least five full years from the initiation of operations. Financial information also demonstrates the owner's ability to direct the waterworks' finances to support technical and managerial capacities and includes a self assessment consisting of the following financial metrics: operating cash reserve, debt service coverage, emergency reserve, and revenue sufficiency. d. Sustainability improvements that are identified throughout the waterworks business operation plan to address TMF aspects of the waterworks' business processes that need improvement. 7. An owner applying for an additional or amended permit may request that the department waive the requirement to submit a waterworks business operation plan. Only applicants who have demonstrated a minimum of a 3-year history of acceptable compliance with the requirements of this Chapter as determined by the department will be considered for this waiver. 8. The submission of plans, specifications, final design criteria, and other supporting design data. This submission may include manufacturers equipment data sheets, drawings, and specifications when the specific materials or equipment to be used in the project have been preselected by the owner with the engineer's concurrence. … H. In accordance with § 32.1-172 F of the Code of Virginia, a construction permit cannot be assigned or transferred to another party. 6 Item #2 cont. – 12VAC5-590-200 cont. • Informal subgroup suggested additional language for the proposed WBOP waiver language in -200 A 7, which currently reads: An owner applying for an additional or amended permit may request that the department waive the requirement to submit a waterworks business operation plan. Only applicants who have demonstrated a minimum of a 3-year history of acceptable compliance with the requirements of this Chapter as determined by the department will be considered for this waiver. • Preference was for some type of automatic waiver under certain, specific circumstances. • Suggestions are: 1) WWs has no history of non-compliance, and the application is for no more than a set % (threshold needs to be determined) increase of the capacity of the expansion; 2) WBOP waived for applicant seeking an additional or amended permit who operates other community WWs with permitted capacity of 0.5 MGD or more and has history of acceptable compliance subject to ODW’s discretion. • More discussion is needed, both internal to ODW and with the WAC 7 Item #2 cont. – 12VAC5-590-260 Proposed language: A. The owner must not operate a waterworks without first having obtained an operation permit except as provided in 12VAC5-590-290. B. The commissioner will issue an operation permit after review of the application submitted by the owner if the commissioner determines that the waterworks will provide potable water. The application includes the following: 1. A statement of completion of construction or, at the department’s discretion in the absence of a proper statement of completion, a set of as-built drawings and specifications or information meeting the requirements of 12VAC5-590-220 D and E as appropriate; 2. All required certifications and test results; 3. Inspection by the department that the project had been satisfactorily completed in accordance with the approved design documents as appropriate; 4. Verification that bacteriological test results comply with the requirements set forth in Part II of this chapter, as

appropriate; and 5. A waterworks business operation plan that meets the requirements set forth in 12VAC5-590- 200. The owner may rely on the waterworks business operation plan that was submitted with the construction permit application unless the information in it is no longer current. C. The commissioner will establish the type (community waterworks, NTNC, or TNC), classification, and permitted capacity of the waterworks and specify these on the operation permit. Conditions may be included with the permit for operator, monitoring, and reporting requirements. D. In accordance with § 32.1-172 F of the Code of Virginia, once issued, an operation permit cannot be assigned or transferred. Any new owner, assignee, or transferee of a waterworks must apply for an operation permit and must include a waterworks business operation plan that meets the requirements set forth in 12VAC5-590-200 with the application.

Ms. Nunn explained that ODW had received feedback from WAC members Jesse Royall and Chris Pomeroy since the last WAC meeting. Their feedback was discussed, including setting a default standard for waiving the WBOP requirement and/or a brightline rule for waiving the WBOP requirement. Ms. Nunn addressed concerns with those approaches. The group discussed historical information related to WBOP requirements. Mr. Herzog stated that there has been no history of requiring a WBOP when one is already on file with ODW. Mr. Estes stated that small system would like to know the standard to be applied. Mr. Mutoti asked how do you ensure the same approach in all circumstances. Ms. Nunn stated that we are working on procedures to standardize the approach. Mr. Roadcap said ODW could develop some examples of scenarios and how things might change if the regulation is amended in an effort to make the impact more concrete fort the WAC members. In sum, the WAC members still had questions regarding the WBOP. Consequently, ODW will continue analyzing the issue and the proposed amendments.

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3. Substantive change • Add requirement to -590-461 for waterworks to notify ODW when a new "operator-in-charge" has been hired • WAC suggested a 30-day time period and removal of redundant language • Proposed language: -590-461 E, Change in owner's designation of operator. When an owner has changed the operator (as defined in 12VAC5-590-10) designated as having responsibility for waterworks operations, the owner shall notify the department within 30 days of such designation and will provide the operator's name, classification, and DPOR certification number.

   Section "E" was added. Mr. Van Gelder clarified that this is a one-person contact that is contemplated. Mr. Ignatius noted that in some cases the owner may not be directly involved with the system. Mr. Kronenberg stated that the owner is ultimately responsible for the system, but someone else affiliated with the system can be the person that informs ODW of a change.

4. Technical change • -590-461 A 1(a) has a misplaced comma • Without moving the comma, this causes consecutive waterworks serving > 50,000 people to be classified as Class 1, which is not ODW's intent • WAC suggested adding numbers for clarity • Proposed language: A waterworks or a water treatment plant: (i) serving 50,000 or more persons, or having a water treatment plant capacity of 5.0 MGD or more, and (ii) employing conventional filtration or chemical coagulation in combination with membrane filtration.

Wording changed and (i) and (ii) added. The WAC members did not provide any comments.

5. Substantive change • Comments received that well abandonment standards are too burdensome with suggestion to amend to match the Private Well Regulations' requirements (see 12VAC5-630-450 on next slide) • OEHS' response was that private well regulations are based on the cost that a homeowner could be expected to afford • DEQ's recommendations: Retain the existing text in B 1, B 2, B 3, B 5, and B 10. B 5 includes a first sentence that substantially duplicates the Private Well Regs, plus a second sentence that is absent from the Private Well Regs (both current and amended versions). We recommend retaining B 5 to preserve the requirement in the second sentence. Replace the other requirements (existing B 4, plus B 6 through B 9) with a single provision to the effect that, "Permanent abandonment of a well shall be in accordance with both this subsection and subsection C of 12VAC-630-450." (This would accommodate both the current requirements and the future, amended requirements of the Private Well Regs.). Proposed language, -590-475 B Permanent abandonment. 1. Well abandonment shall be supervised by a certified water well systems provider. 2. All well abandonments shall be documented on a Uniform Water Well Completion Report, Form GW-2, and submitted to the department within 30 days of completing the physical abandonment. 3. Groundwater wells that are abandoned shall be sealed by methods that will restore to the fullest extent possible the controlling geological conditions that existed before the wells were constructed. 45. The well shall be checked from land surface to the entire depth of the well before it is sealed to ascertain freedom from obstructions that may interfere with sealing operations. Effort shall be made to remove or clear any obstacles that may prohibit sealing by grouting the complete well depth. 510. The location of the well shall be permanently documented for future reference. 6. Permanent abandonment of a well shall be in accordance with both this subsection and the Private Well Regulations, 12VAC5-630.

   After a discussion, the WAC members feel that there needs to be further discussion on this topic.

6. Technical change • In -590-630 D, remove the references to "starting January 1, 2023…" since that date is now past • Proposed language: "Starting January 1, 2023, persons testing and repairing backflow prevention assemblies and backflow prevention devices shall be certified by a Commonwealth of Virginia tradesman certification program (identified by DPOR as backflow prevention device workers)." • WAC approval given at December 2023 meeting if DPOR was not going to eliminate the certification program for backflow prevention device workers • Code of Virginia § 54.1-1129 B requires DPOR to have a certification program for backflow prevention device workers and no bills were submitted to the GA this session to change that.

   The WAC members did not have comment on this.

7. Following discussions with DEQ, propose amending -830 to: 12VAC5-590-830, Surface water sources; quantity; quality; development structures. A. A surface water source includes

all streams, rivers, lakes, and other bodies of natural or impounded waters, and the tributaries thereto, above the point of water supply intake. 1B. The quantity of water from the surface water source, plus water from other sources available to and used by the waterworks, must: 1. Be adequate to supply the water demand of the waterworks service area; 2. Provide a reasonable surplus for anticipated growth; and 3. Be adequate to compensate for all losses, including evaporation, seepage, and flow-by requirements,. C. A waterworks that is using or will use a surface water source and is applying for a construction permit or operation permit must provide to the department: 1. A Virginia Water Protection (VWP) permit issued by DEQ pursuant to the State Water Control Law, Chapter 3.1 of Title 62.1 of the Code of Virginia, for the surface water withdrawal or, 2. If a VWP permit has not been issued and DEQ certifies that such permit is not required pursuant to the State Water Control Law, specifications for the capacity of the intake structure, historical withdrawal rates, and the minimum withdrawal rate available during a day and recurring every 30 years (30 year – one day low flow). To generate the report for this, data is to be used to illustrate the worst drought of record in Virginia since 1930. If actual gauge records are not available for this, gauges are to be correlated from similar watersheds and numbers are to be synthesized; and 3. Any other information the department deems appropriate. D. Nothing herein, including the calculation of the minimum withdrawal rate available during a day and recurring every 30 years (30 year – one day low flow), shall be construed as applying to the determination of any existing riparian rights or to the owner's responsibility to obtain authorizations from other state agencies for water withdrawals, including the preservation of instream flow from surface water sources in accordance with the State Water Control Law, Chapter 3.1 of Title 62.1 of the Code of Virginia. E. The owner shall conduct, or have conducted, an assessment of the factors, both natural and man-made, that will affect the quality and quantity of the surface water source. The results of the assessment shall be submitted to the division department, along with the application for a construction or operation permit. The assessment shall include, but shall not be limited to: 1. Obtaining samples over a sufficient period of time acceptable to the department to assess the bacteriological, physical, chemical, and radiological characteristics of the surface source water source; 2. Determining future uses and effects of impoundments or reservoirs; 3. Determining the degree of control over the watershed that may be exercised by the owner; and 4. Locating potential sources of pollution within 5 miles upstream from the surface water intake; and 5. Assessing the degree of hazard to the surface water source resulting from a potential release of materials that may be toxic, harmful, or detrimental to treatment processes. F. Intake Surface water intake structures shall provide for: 1. Withdrawal of water from at least three levels in impoundments or reservoirs. Withdrawal of water from more than one level may be required in run-of-the-stream intakes if the quality varies with depth; 2. Separate facilities for release of less desirable water held in storage at impoundments or reservoirs; 3. Screens on intake ports with provisions for adequate cleaning. Screen opening size and velocity may be restricted by federal or state permit; 4. Prevention of flooding of access walkways and control valves of intakes on multiple purpose reservoirs; and 5. Flow velocity through the inlet structure so that frazil ice will be held to a minimum.

The WAC members have requested to kept the concept of safe yield but get rid of the term. DEQ will be reviewing the safe yield issue this summer, so the WAC members recommended tabling this for now.

8. Substantive change • Update -590-882 G to reflect a requirement for inline laser-type turbidimeters • Applicable only to membrane filtration processes. • Requirement in WM880 so already asking waterworks to meet this standard • Proposed language (in red): G. Turbidity monitoring. Continuous indicating and recording equipment meeting the requirements of 12VAC5-590-770 B shall be provided for the following locations: 1. Source water; 2. Pretreated water, such as by coagulation, flocculation, and sedimentation (if applicable); 3. Filtrate from each membrane unit (required detection limit of 0.002 NTU with resolution of 0.001 NTU or less); and 4. Combined filter effluent, where more than one membrane unit is installed (required detection limit of 0.002 NTU with resolution of 0.001 NTU or less).

    A performance standard is proposed. Mr. Mutoti stated that he supports this change because the last version mentioned specific technology.

9. Substantive change • Looked at moving flood risk management standard from the DWSRF Program Guidance to our regs • This would have codified requirements already imposed on those in the regulated community that receive DWSRF funds • Decision made to table this as the federal SRF requirement for an environmental assessment is not found in the federal or state drinking water laws and regulations, so ODW lacks the authority to require this.

    Ms. Nunn noted that this item is tabled.

10. New substantive item to Public Notice requirement • Current language: Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis. • Proposed language: Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis. An example would be a loss of water pressure that results in the potential for contaminants to enter the depressurized area of a distribution system, such as a water main break, loss of water supply, demand exceeding supply, or closed valve.

    Some WAC members felt that adding the example was unnecessary. Mr. Roadcap stated that ODW will have a deeper discussion on how this policy is being implemented.

11. New substantive item • Extend requirement for emergency management plan to include extended water outages that are unrelated to power outages • SDWA Sec 1413(a)(5) – state "has adopted and can implement an adequate plan for the provision of safe drinking water under emergency circumstances including earthquakes, floods, hurricanes, and other natural disasters as appropriate." • Proposed language (in red): 12VAC5-590-505. Emergency management plan for extended power or water system outages. A. The owner of a community waterworks (including consecutive waterworks) shall develop and maintain an emergency management plan for extended power or water system outages. B. The plan shall be kept current and shall be retained at a location that is readily accessible to the owner in the event of an extended power or water system outage. C. The owner of a community

waterworks shall certify in writing to the department that the plan has been completed. D. The plan shall address the following where applicable: 1. Identification of the criteria (events, duration of power or water system outage, etc.) that will initiate activation of the plan. 2. How the owner will respond to an extended power outage lasting a minimum of five days or water system outage lasting a minimum of x days. 3. Procedures for obtaining and distributing potable water in the event that the primary sources become unavailable. 4. Notification procedures and example notices to the public and media (local radio stations, television stations, local newspapers, etc.) including conservation notices and boil water advisories. 5. Emergency disinfection procedures for the distribution system and storage tank. 6. The point of contact for the department. 7. The points of contact for the waterworks personnel who should be notified. 8. The point of contact for the Local Emergency Coordinator designated by the Virginia Department of Emergency Management. 9. For a power outage, the points of contact for the electric power, natural gas, and propane distributors, or other energy supplier to the waterworks.

The WAC members would prefer not to change the language.

12. New substantive language to 12VAC5-590-476 • Emergency wells are a type of inactive well, but they need different treatment than a well that's being reactivated due to necessary equipment repairs • Existing regulation doesn't include language specific to emergency wells • Proposed language (in red): A. The owner must notify the department of the intent to reactivate a well. B. Before bringing the well into service, the well must be pumped to waste (purged) for a minimum of five well volumes but for not less than 30 minutes. The purged well water will be discharged in a manner so that it will not return to the well, directly or indirectly, during the pumping period. C. After the well is pumped, water quality samples must be collected. Two samples will be collected at least 30 minutes apart and tested for the presence of total coliform and E. coli. If the well has been inactive for one or more years, it must also be tested for total coliform density (MPN), nitrate, and, if determined by the department, inorganics, VOCs, SOCs, and radionuclides. Satisfactory test results must be obtained before placing the well into service. D. A well yield and drawdown test may be required by the department before bringing the well into service. The test will be performed in accordance with 12VAC5-590-840 H, as applicable. E. A well may be activated for emergency use before receipt of satisfactory monitoring results, even if public health and safety are unknowns and may be at risk, as determined by the department. However, in these circumstances, a special water advisory must be approved by the department and issued by the waterworks at the same time the well is activated. F. Emergency wells 1. An emergency well is an inactive well approved by the department that is available for emergency purposes only. An emergency well must have a full developmental series of tests on record with the department. If reactivated, an emergency well should be returned to an inactive status as soon as possible. 2. An inactive emergency well must be tested annually for raw water MPN and nitrate. Quarterly raw water bacteriological testing may be required by the department. Additional routine monitoring may be required by the department if chronic contaminants are of special concern, using one or more of the following tests: inorganics, VOCs, SOCs and Radionuclides. 3. An emergency well must be exercised on a routine basis. 4. If bacteriological contamination of the emergency well is of concern, the department may require that the well be disinfected in accordance with AWWA C654-13. If continuous

chlorination equipment is in place, the department may waive disinfection of the well. 5. If the emergency well serves a community waterworks and will be used for a period of more than 3 months, then it must be tested for inorganics, VOCs, and radionuclides. If the emergency well serves a NTNC waterworks and will be used for a period of more than 3 months, then it must be tested for inorganics and VOCs. Testing for SOCs may also be required.

Some WAC members stated that the proposed regulatory amendments don't adequately explain the difference between an inactive well and an emergency well. They feel that there needs to be more work on the language contained in this section.

13. New substantive item HB220 • Recognize the need for this due to operator shortage • Bill has unanimously passed both houses of the General Assembly • The part of the Bill that impacts waterworks would add a new section to the Code of Virginia, § 32.1-172.1, Attendance by licensed operator • Regulations will be needed if/when the bill becomes law • ODW discussing possible regulatory language and looking for WAC input•.

It was noted that the introduction of HB 220 will help waterworks because it is a way to designate another operator to help manage the waterworks while the waterworks is looking to hire another operator. Mr. Pomeroy stated that he can work with the Virginia Municipal Drinking Water Association and consider regulatory language, and will provide that feedback to the WAC. Ms. Nunn noted that WAC members may need to discuss this topic in another subcommittee.

14. Technical change • No official mandate yet, but it's expected that the Office of the Registrar will decide in the near future that agencies can no longer use "shall" in regulatory language and will be asked to change "shall" to "must," "will," or other similar language to clarify intent • Replacements are being done because multiple court decisions have found that "shall" sometimes means "may" • Doing this now rather than waiting until the next time the Waterworks Regulations are amended • More than 2,600 replacements, so WAC will not be asked to review them.

Ms. Nunn explained that ODW will change uses of "shall" in the Waterworks Regulations to "must" or "will."

15. Governor's mandate that agencies reduce discretionary requirements by 25% • Waterworks regulations have approximately 1,400 discretionary requirements, so ODW will look at what can be reduced without risking public health • Internal discussions will be held with the intent of presenting findings to the WAC at the June 2024 WAC meeting.

<u>Compliance, Enforcement & Policy Update</u>

Grant Kronenberg presented the Compliance, Enforcement & Policy Update.

The most recent EPA Enforcement Targeting Tool report was issued in January. That report showed 9 systems that are considered serious violators by EPA, which is down from 13 on the prior quarterly report. Three of the 13 systems were already under an administrative order and

one of them had their order terminated because they have fully complied with it. One other system is back in full compliance and two others are nearly back to full compliance.

Two recent consent orders have been terminated because all requirements have been fulfilled.

The proposed amendments to the Waterworks Operation Fee Regulations are undergoing review at the Secretary of Health and Human Resources' office.

The proposed amendments to the Enforcement Manual are currently undergoing review at the Office of Regulatory Management.

Staff update

Dwayne Roadcap provided the update.

ODW currently has a 14% vacancy rate with 16 vacancies. Tony Singh's old position title has been changed to the Chief of Field Office Operations and is now held by Bailey Davis. Bailey was a previous member of the WAC through DCLS. He will be working with Bob Edelman on the PFAS initiatives.

Budget

Dwayne Roadcap provided the update.

Due to lack of funding, the Office of Drinking Water had been holding 7 positions with 3 positions unfunded. Now, ODW will soon be hiring 4 positions that were previously held open. The General Assembly gave ODW's Sampling Verification Program $1 million for its first year and $1.5 million for its second year. Unfortunately, the Office of Drinking Water remains in a situation where the overall level of staffing remains under funded. A report by Cadmus, commissioned by EPA, stated that for the Office of Drinking Water to effectively maintain the rules, it needs an additional 42 full-time staff members.

PFAS

Bob Edelman provided the update.

The EPA should issue a final PFAS rule soon. The Office of Drinking Water is anticipating that the final rule will call for initial monitoring in the three-year period between the publication dated and the rule compliance date, which is unusual. Initial monitoring for surface water sources will consist of 4 quarterly samples; initial monitoring for ground water sources will consist of 2 samples within a 12-month period.

The Virginia PFAS Sampling Program summary has identified the numbers of waterworks with confirmed PFAS levels above the proposed EPA PFAS maximum contaminant levels (MCLs). The Office of Drinking Water has observed most of the issues are with PFOS and PFOA. Only

two systems exceeded the proposed MCL for the Hazard Index. One system exceeded for GenX and one system exceeded due to PFHxS. The Office of Drinking Water has tested 274 waterworks out of approximately 1,100 community waterworks and 500 nontransient noncommunity waterworks. The samples results are available on our ODW PFAS Sampling Dashboard. Refer to the slides for more details.

EPA is overseeing the Unregulated Contaminant Monitoring Rule 5 (UCMR5) monitoring and are monitoring 150 waterworks serving 3,300 persons and more plus 19 small waterworks serving less than 3,300 persons in Virginia for 29 PFAS compounds plus lithium. Refer to the slides for a summary of the UCMR

This year, ODW plan to proceed with Phase 3 PFAS monitoring, which will focus on sampling small waterworks, disadvantaged communities, and systems not covered by UCMR5. The Office of Drinking Water will use funding from the EPA PWSS Grant – Emerging Contaminants and the EPA Emerging Contaminants in Small or Disadvantaged Communities Grant. The field office staff will complete the sampling.

Lead and Copper Revisions

Bob Edelman provided the update.

Waterworks are completing their service line inventories. To assist, ODW has contracted with TruePani to provide technical assistance to waterworks. ODW has placed a link on ODW's Lead and Copper Rule Revisions (LCRR) guidance webpage to request technical assistance. TruePani is holding office hours on Wednesdays at 12 noon for community waterworks and office hours for NTNC waterworks on Tuesdays.

ODW has rolled out the SWIFT submittals and delivered training to the regulated community in February. The recordings are available on the LCRR guidance webpage.

Currently, 17 water systems have put their inventory through SWIFT submittals with 11 in progress. The Lead and Copper Rule Committee will establish a review process for the inventories. ODW will deploy a webinar in summer 2024 to focus on the new LCRR public notification, public education, and consumer notification requirements. See the slides for more details.

The proposed Lead and Copper Rule Improvement (LCRI) proposed to roll back many but not all changes in the LCRR back to the 2020 version of the Code of Federal Regulations. Under the LCRR, modified by the LCRI, the following are required beginning October 16, 2024:

- Complete and submit the Service Line Inventory to the State.
- Public Notifications and Consumer Notifications due thereafter.
- Tier 1 Public notice upon lead 90th percentile exceeding the action level.

Centralized Plan Review Program

Aaron Moses provided the update.

The Office of Drinking Water is currently caught up on the centralized plan reviews. The Office of Drinking Water has made changes allowing us to catch up and is now incorporating the tracking system. It shows the permits and will allow us to view the status.

Drinking Water Viewer implementation

Aaron Moses provided the update.

The online Drinking Water Viewer is fully operational. ODW had intended to implement a new module to generate and download the data tables for a Consumer Confidence Report (CCR); however, this module is not ready, the developer is still working on it, and it likely will not be ready for this CCR season.

Legislative Update

Dwyane Roadcap provided the update.

HB220 is currently at the Governor's office. It allows the agency to provide options for remote monitoring. The Office of Drinking Water has received a variance request from one waterwork so far related to remote monitoring. The Office of Drinking Water is receptive to the idea and trying to figure out the appropriate guard rails. The bill also creates a licensed operator requirement in statute and allows for a waiver of that requirement in the event of a sudden vacancy if certain requirements are met. The Governor has not yet signed the bill.

SB243 is a PFAS bill resulting when the results show an exceedance of the hazard index. The Office of Drinking Water will share our results with DEQ and then DEQ would prioritize this data. Based on this information, DEQ will try to look upstream to try to find the source of the PFAS. The bill has had support from various groups and a significant amount of effort was put into it by those stakeholders. The Governor has not yet signed the bill.

There is a budget amendment that would provide $500,000 to evaluate the cost of compliance to the participating rule. A lot will depend on the budget negotiations process. The Office of Drinking Water may have that money to access the impacts and costs on the anticipated PFAS changes.

Public Comment

None

Conclusion

The 2024 WAC meetings are scheduled for June 12, 2024 (all virtual), September 18, 2024 (in person), December 11, 2024 (all virtual).

The meeting adjourned at approximately 12:45 p.m.

WATERWORKS ADVISORY COMMITTEE MEETING AGENDA

Fairfield Library, 1401 N. Laburnum, Richmond VA 23223

In person meeting

March 13, 2024; 10:00 AM to 1:00 PM

Subject	Time (Estimated)
• Welcome message, establishment of quorum, WAC membership/ODW staffing update – Dwayne Roadcap	10:00 – 10:05 AM
Waterworks Advisory Committee Administrative Matters • Introduction and review of agenda items – Chair David Van Gelder • Review and adoption of minutes from December's meeting – Grant Kronenberg	10:05 – 10:10 AM
Development of Amendments to the Waterworks Regulations • Updates to proposed amendments and finalizing Waterworks Regulations – Jane Nunn	10:10 AM – 11:45 PM
Drinking Water Program Discussion • Staffing update – Dwayne Roadcap • Legislative Update – Dwayne Roadcap • Compliance, Enforcement & Policy update – Grant Kronenberg • PFAS Status Update – Bob Edelman • Lead and Copper Rule Revisions and Lead and Copper Rule Improvements – Bob Edelman • Centralized Plan Review, Drinking Water Viewer implementation update – Aaron Moses • ODW Budget Update – Dwayne Roadcap	11:45 PM – 12:45 PM
Public Comment Period	12:45 – 12:55 PM
Other Business • Planned upcoming meeting dates: June 12, 2024 (all virtual), September 18, 2024 (in person), December 11, 2024 (all virtual)	12:55 – 1:00 PM

The method by which the Waterworks Advisory Committee chooses to meet shall not be changed unless the Waterworks Advisory Committee provides a new meeting notice in accordance with Code of Virginia § 2.2-3707.

Information and Protocol for Joining the Meeting Electronically

Access to the meeting can be achieved via computer, phone or mobile device with the meeting link below:

If accessing via a mobile device, you will need to download the WebEx Meet app prior to joining the meeting.
https://vdhoep.webex.com/vdhoep/j.php?MTID=md2ba3089117e1819c39c2c3ca5433cf5

When joining the meeting, please use the meeting number and password below:
Meeting number (access code): 2631 889 2084
Meeting Password: zjX5A7Swmr3
You can use your computer audio or join via telephone by calling 1-844-992-4726 United States Toll Free.

Please log into the meeting at least 10 minutes before the meeting begins.

If you have problems logging in or if there is any interruption in transmission, please call Kris Latino at 804-664-4403.

Please sign into the meeting and identify yourself so we can verify that you are attending the meeting.

After you have identified yourself, please mute your phone to reduce any unwanted noise.

DRAFT

Waterworks Advisory Committee Meeting Minutes

In Person: Fairfield Library, 1402 Laburnum Ave, Richmond VA 23223

10:00 am, Wednesday, December 13, 2023

Members Present: David Van Gelder (Chair), Water Operator; Jesse Royall, Jr., Sydnor Hydro, Inc.; Bailey Davis, DCLS; Skip Harper, Virginia Plumbing & Mechanical Inspectors Association; Steve Herzog, PE, VWEA; Russ Navratil, VA AWWA; Chris Pomeroy, Virginia Municipal Drinking Water Association; Ignatius Mutoti, VSPE; Andrea Wortzel, Mission H2O; Geneva Hudgins, VA-AWWA; Ben Barber, VA Health Catalyst

Members Absent: Whitney S. Katchmark, PE Principal Water Resources Engineer; Tom Fauber, VA ABPA; Caleb Taylor, VA Municipal League; Anthony Morris, DEQ; Mark Estes, VRWA; Joey Hiner, VA SERCAP (attended virtually).

Stakeholders: Christopher Gill, William J. Mann, Jr., MD, Chris Harbin, Ivy Ozman, Katherine Coffey

Office of Drinking Water (ODW) Staff: Dwayne Roadcap, James Reynolds, Barry Matthews, Aaron Moses, Dan Horne, Christine Latino, Grant Kronenberg, Robert Edelman, Jane Nunn, Steve Kvech, Jeremy Hull, Kendall Scott, Ray Weiland, Jessica Coughlin

Meeting Overview

The Waterworks Advisory Committee (WAC) met in person at the Fairfield Library, 1401 N. Laburnum Avenue, Richmond, VA. Stakeholders, ODW staff, and the public also joined in person and by electronic communication means via WebEx. Grant Kronenberg called the meeting to order at 10:03 a.m. and reviewed the agenda.

It was established that there were enough members in person to establish a quorum.

Review and Adopt Minutes of Meeting

The WAC membership unanimously adopted the meeting minutes from the September meeting. No additions or corrections were made to the draft meeting minutes as presented.

Waterwork Regulations

Jane Nunn has been working on the proposed changes to the Waterworks Regulations. There are 16 substantive changes and 10 technical changes being presented for the WAC's consideration. Jane presented the proposed amendments to the WAC, noting that the WAC will determine

whether to approve the proposed changes and whether it needs to establish subcommittees to discuss any of the proposed changes.

1. Substantive change • Amend the definition of "operator" to clarify it is someone who has a license "with a classification equal to or higher than the classification of the waterworks or water treatment plant being operated" found in 12AVC5-590-461(B) and (C)

   The WAC discussed regarding this change. An operator can be anyone, but the new definition indicates that you must have a valid license instead of the capability to have a license. They are concerned that the new definition will exclude a category of personnel. ODW staff suggested meeting with DPOR to make sure both definitions are concurrent. The WAC determined that no determination could be made without further discussion.

2. Technical change • Correct definition of "reverse osmosis" in 12VAC5-590-10. It should read: "Reverse osmosis" or "RO" means a membrane technology designed to remove salts, low-molecular weight solutes, and all other constituents up to down to 0.0001 micron in size…"

   No opposition by the WAC members to the proposed change.

3. Technical change • Change "informal fact-finding proceeding" to "informal fact-finding conference" in 12VAC5-590-115 and elsewhere. Makes the language consistent with other VDH offices and other agencies.

   No opposition by the WAC members to the proposed change.

4. Technical changes • Proposed amendments: 12VAC5-590-10 – Change the definition of "TMF" from: "'TMF' means the technical, managerial, and financial capabilities to operate and maintain a waterworks." To: "'TMF' means technical, managerial, and financial." 12VAC5-590-200(A)(5) – add "to operate and maintain a waterworks" after "TMF capabilities." 12Vac5-590-290(F)(1) – add "to operate and maintain a waterworks" after "TMF capabilities."

   No opposition by the WAC members to the proposed change.

5. Topic of discussion (would be substantive changes) • Code of Virginia § 32.1-172 requires a comprehensive business plan as part of the application for a permit to "establish, construct or operate any waterworks or water supply in the Commonwealth…" The comprehensive business plan in ODW is the Waterworks Business Operation Plan (WBOP). WBOP is identified as a requirement to obtain a construction permit under 12VAC5-590-200(A)(5). WBOP is currently not required under 12VAC5-590-260, Issuance of the operation permit, for issuance of an operation permit. WAC input requested as ODW is still analyzing the issue to determine if or how amendments should be made with respect to the requirement for a WBOP and the circumstances in which to require it.

After some discussion, the WAC determined that more discussion is needed for better clarity. Grant Kronenberg, Jane Nunn, and Barry Matthews will update the material then forward it to Jesse Royall, Chris Pomeroy and Andrea Wortzel for their individualized review. The updated version will be presented to the WAC in March.

6. Technical change • "RAA" is defined in 12VAC5-590-10 as "running annual average" and is used in multiple places in the Waterworks Regulations. In 12VAC5-590-384 and 12VAC5-590-531, however, the term "running annual arithmetic average" is found. The Waterworks Regulations mirror the Code of Federal Regulations, which uses "RAA" and "running annual arithmetic average" interchangeably with no apparent distinction between the two. In ordinary language, an "average" is an "arithmetic average," so there does not appear to be a substantive reason for not using "RAA" throughout the Waterworks Regulations. ODW proposes replacing "running annual arithmetic average" with "RAA." This is a technical change – "RAA" is defined as "running annual average."

   No opposition by the WAC members to the proposed change.

7. Substantive change • Add requirement to 12VAC5-590-461 for waterworks to notify ODW when a new "operator-in-charge" has been hired. Proposed language: 12VAC5-590-461(E), Change in owner's designation of operator. When an owner has changed the operator (as defined in 12VAC5-590-10) designated as having responsibility for waterworks operations and any subordinate staff, the owner shall notify the department within 10 days of such designation and shall provide the operator's name, classification, and DPOR certification number.

   The WAC suggested that the 10-day notification be changed to "10 to 30 days or no later than the tenth day of the previous month" Jane indicated that she would check the Code of Virginia to confirm.

   The WAC suggested to strike the "subordinate staff" language.

   With whose changes, the WAC did not oppose the proposed change.

8. Technical change • 12VAC5-590-461(A)(1)(a) has a misplaced comma. Should read: "A waterworks or a water treatment plant serving 50,000 or more persons or having a water treatment plant capacity of 5.0 MGD or more and employing conventional filtration or chemical coagulation in combination with membrane filtration." Without moving the comma, this causes consecutive waterworks serving more than 50,000 people to be classified as Class 1, which is not ODW's intent.

   The WAC has asked if bullet points could be used instead of commas. Ignatius Mutoti and Bob Edelman will meet offline to discuss an issue raised with the use of the word "coagulation."

9. Substantive change • Current language, 12VAC5-590-475(B) “Permanent abandonment.

1. Well abandonment shall be supervised by a certified water well systems provider.

2. All well abandonments shall be documented on a Uniform Water Well Completion Report, Form GW-2, and submitted to the department within 30 days of completing the physical abandonment.

3. Groundwater wells that are abandoned shall be sealed by methods that will restore to the fullest extent possible the controlling geological conditions that existed before the wells were constructed.

4. Casing and screen materials may be salvaged.

5. The well shall be checked from land surface to the entire depth of the well before it is sealed to ascertain freedom from obstructions that may interfere with sealing operations. Effort shall be made to remove or clear any obstacles that may prohibit sealing by grouting the complete well depth.

6. The well shall be thoroughly chlorinated before sealing.

7. Bored wells and uncased wells shall be backfilled with clean fill to the water level. A two-foot-thick bentonite grout plug shall be placed immediately above the water level. Clean fill shall be placed on top of the bentonite grout plug and brought up to at least five feet from the ground surface. The top five feet of the well casing, if present, shall be removed from the bore hole. If an open annular space is present around the well casing, then the annular space shall be filled with bentonite grout to the maximum depth possible, but less than or equal to 20 feet. A one-foot-thick cement or bentonite grout plug that completely fills the bore void space shall be placed a minimum of five feet from the ground surface. As an alternative, bored wells and uncased wells may be completely filled with concrete, sand-cement, bentonite-cement, or neat cement grout to within a minimum of five feet from the ground surface by introduction through a pipe initially extending to the bottom of the well. The pipe shall be raised but remain submerged in grout or concrete as the well is filled. The remaining space shall be filled with clean fill that is mounded a minimum of one foot above the surrounding ground surface.

8. Non-bored wells constructed in unconsolidated formations shall be completely filled with concrete, sand-cement, bentonitecement, or neat cement grout to within a minimum of five feet from the ground surface by introduction through a pipe initially extending to the bottom of the well. The pipe shall be raised but remain submerged in grout or concrete as the well is filled. The remaining space shall be filled with clean fill that is mounded a minimum of one foot above the surrounding ground surface.

9. Wells constructed in consolidated rock formations or that penetrate zones of consolidated rock may be filled with sand or gravel opposite the zones of consolidated rock. The top of the sand or gravel fill shall be at least five feet below the top of the consolidated rock and at least 20 feet below land surface. The remainder of the well shall be filled with concrete, sand-cement, bentonite-cement, or neat cement grout to within a minimum of five feet from the ground surface by introduction through a pipe initially extending to the bottom of the well. The pipe shall be raised but remain submerged in grout or concrete as the well is filled. The remaining space shall be filled with clean fill that is mounded a minimum of one foot above the surrounding ground surface.

10. The location of the well shall be permanently documented for future reference.”

Comments received that well abandonment standards are too burdensome with suggestion to amend to match the Private Well Regulations' requirements (see 12VAC5-630-450). The VDH Office of Environmental Health Services' response was that private well regulations are based on the cost that a homeowner could be expected to afford. DEQ's recommendations: Retain the text currently found in B.1, B.2, B.3, and B.10. B.5 includes a first sentence that substantially duplicates the Private Well Regulations, plus a second sentence that is absent from the Private Well Regulations (both current and amended versions). ODW recommends retaining B.5 to preserve the requirement in the second sentence. Replace the other requirements (current B.4, plus B.6 through B.9) with a single provision to the effect that, "Permanent abandonment of a well shall be in accordance with both this subsection and subsection C of 12VAC5-630-420." This would accommodate both the current requirements and the future, amended requirements of the Private Well Regulations.

Jesse Royall would like ODW to further discuss the issue with VDH's Office of Environmental Health Services to make sure that the proposal is in line with the Private Well Regulations. ODW will do that and bring something back to the WAC at its March meeting.

10. Substantive change • Propose restoring the baffle factor of 1.0 to the Baffling Factor Table 500.15 in -590-500. The Baffling Factor Table 500.15 in 12VAC5-590-500 was amended in the 2021 amendment to the Waterworks Regulations, removing the 0.9 and 1.0 baffle factors. Consistent with the Guidance Manual for the Compliance with Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources (EPA, 1991), a baffle factor of 1.0 for Perfect (plug flow) conditions is justified (this reference does not have a 0.9 baffle factor). Recommend that ODW amend Table 500.15 to match the EPA guidance (Table C-5, Baffling Classifications).

    EPA does not include the Baffling Factor of 0.9 in its table. The WAC members suggested to make the table consistent with the EPA guidance factor. ODW would add the 1.0 back into the regs to conform with EPA's standards. The WAC members recommend that ODW amend our table so that it matches. No opposition by the WAC members to the proposed change.

11. Substantive change • Return language requiring metering of total water production and add to 12VAC5-590-510. Prior to 2021, the Waterworks Regulations had requirements for metering of total water production in both Part II (what was then 12VAC5-590-520.B) and Part III (12VAC5-590-700); today's Waterworks Regulations only have this requirement in Part III (12VAC5-590-700), which seems to allow existing waterworks to discontinue metering of total water production.

    Proposed language: 12VAC5-590-510. F. Metering total water production
    1. All community waterworks shall provide metering of total water production.
    2. All NTNCs and TNCs that provide treatment or have a design capacity of greater than 300,000 gallons per month shall provide metering of total water production.

3. If the waterworks treatment process results in a waste flow, including filter backwash, ion exchange regenerate, or residual solids, then the waterworks shall provide metering of total source water withdrawn and finished water produced.
4. The department may document exceptions to this requirement in Operation Permit Conditions or a Variance Substantive Change.

The Waterworks Regulations has an issue regarding metering total water production. Would like to add the language back to part 2 that was removed in the 2021 amendments and add to section 510. Create a new subsection for 510.

No opposition by the WAC members to the proposed change.

12. Substantive change • Add requirement to report "unregulated contaminants" for which monitoring is required under 40 CFR § 141.40 (UCMR) to the Consumer Confidence Report to reflect the requirement in 40 CFR § 141.153(d)(ii). The requirement for reporting detected contaminants monitored under the UCMR is missing from 12VAC5-590-545(C)(3). Proposed language: "3. Information on detected contaminants. a. This section specifies the requirements for information to be included in the report for contaminants subject to a PMCL, AL, MRDL, or treatment technique as specified in 12VAC5-590-340 and contaminants for which monitoring is required by 40 CFR § 141.40 (unregulated contaminants)." Substantive change – Need to add a requirement regarding regulated contaminants. Not currently in the Waterworks Regulations – this is something that EPA has required us to do.

No opposition by the WAC members to the proposed change.

13. Technical change • Missing language in 12VAC5-590-545©(5)(c). Current language: "For that fails to take one or more of the prescribed actions, the report shall include the applicable language of 12VAC5-590-546 for lead, copper, or both." Proposed language: "For an owner that fails to take one or more of the prescribed actions, the report shall include the applicable language of 12VAC5-590-546 for lead, copper, or both."

No opposition by the WAC members to the proposed change.

14. Technical change • In 12VAC5-590-630(D), remove the references to "starting January 1, 2023…" since that date is now past. Proposed language: "Starting January 1, 2023, persons testing and repairing backflow prevention assemblies and backflow prevention devices shall be certified by a Commonwealth of Virginia tradesman certification program (identified by DPOR as backflow prevention device workers)." Technical change – addition of "an owner."

No opposition by the WAC members to the proposed change.

15. Technical change • Update the "Note" in 12VAC5-590-830(A)(2)(b) to reference DEQ. Proposed language: "Note: Local governments may request this aid from the Department of Environmental Quality (DEQ) by contacting either the Health Department's Office of Water

Programs or DEQ's headquarters office in Richmond." Technical change – Change reference to the Department of Environmental Quality.

No opposition by the WAC members to the proposed change.

16. Substantive changes. Well construction: 12VAC5-590-840(F)(1)(c), Class 1 wells - "For wells constructed in consolidated formations, the lower end of the casing shall terminate in solid rock or other impervious impermeable formation when practical to do so." 12VAC5-590-840(F)(2)(c), Class 2 wells - "For wells constructed in consolidated formations, the lower end of the enlarged portion of the drill hole should terminate in solid rock or other impervious impermeable formation when practical to do so." Grouting requirements: 12VAC5-590-840(G)(5)(b)(3) - "Before grouting wells, suitable fill material such as bentonite, engineered low-permeability/high-solids bentonite and sand mix, low-strength cement and sand mix, or similar materials that have been approved by the department shall be added to the annular opening below the grout zone to seal and stabilize these areas. Instead of this requirement, the casing may be grouted for its entire depth." Substantive change – well constructions from "impervious" to "impermeable." Also adding "engineered low-permeability/high-solids bentonite and sand mix."

    No opposition by the WAC members to the proposed change

17. Substantive change • Previously, 12VAC5-590-1030(A)(2) required, "A properly screened vent with the end elbowed downward shall be provided for the well casing," but was repealed in 2021. Recommend restoring language for well casing vent requirements, including screening, by adding to 12VAC5-590-840(I)(4). 12VAC5-590-840(I)(4) currently reads, "Provisions shall be made for venting the well casing to the atmosphere. Where vertical turbine pumps are used, vents into the side of the casing may be necessary to provide adequate venting." This allows multiple interpretations of what an appropriate vent might be:
    1) a screened mushroom cap.
    2) a screened tube elbowed downward.
    3) a tube pointed straight upwards with a screen tied around the end.
    4) an unscreened pitless adapter cap; or
    5) something else.

    Recent example: a plastic pipe pointed straight upward, with no screen, and with slots cut into the sides of the pipe.

    Proposed language: "Provisions shall be made for venting the well casing to the atmosphere. The piping connecting the vent to the casing shall be of sufficient diameter to allow for rapid venting of the casing. The opening of the vent shall be covered with corrosion resistant screen, with a mesh size sufficient to prevent entrance by insects (24-mesh size recommended). Where vertical turbine pumps are used or the well is equipped with a pitless adapter unit, vents into the side of the casing may be necessary to provide adequate well venting. Pitless adapter caps, which have screened vents that are integral to the cap construction, are acceptable. The vent shall terminate in a downturned position, at or above the top of the casing, no less than 12 inches above the floor or grade."

No opposition by the WAC members to the proposed change.

18. Substantive change • Update 12VAC5-590-882(G) to reflect a requirement for inline laser-type turbidimeters. Applicable only to membrane filtration processes. Requirement in ODW Working Memo 880 so already asking waterworks to meet this standard. WAC input is requested as ODW is still researching this possible amendment.

    WAC members requested that ODW check on laser type turbidimeters and ODW staff said that would look at developing a performance standard.

19. Substantive change • Update 12VAC5-590-1005(H)(4) to be consistent with new EPA UV guidance issued in 2022 that says continuous UVT monitoring is no longer necessary when the calculated dose approach is used. Proposed language: "Continuous monitoring sensors shall be provided to measure UV intensity. A continuous sensor shall also be provided to measure ultraviolet transmittance (UVT) if the calculated dose approach is utilized, except if the validated calculated dose approach does not require UVT as a continuous input. For systems validated on the basis of equations not requiring UVT as a continuous input, the department may require equipment for grab-sample UVT analysis."

    No opposition by the WAC members to the proposed change.

20. Substantive change • Revision to 12VAC5-590-1065(D) as it relates to 12VAC5-590-700. Current language: "A totalizing water meter to measure water production shall be provided for each well and shall be located upstream of the well blowoff." Proposed language: "If a totalizing water meter is required per 12VAC5-590-700, then a totalizing water meter shall be provided for each well and located upstream of the well blowoff."

    WAC members requested to clarify that this is an exception, and WAC members noted that this language is incorporating exceptions that are in another section of the Waterworks Regulations.

    With clarification, no opposition by the WAC members to the proposed change.

21. Substantive change • Look at moving flood risk management standard from the Drinking Water State Revolving Fund (DWSRF) Program Guidance to the Waterworks Regulations. Jane Nunn noted that this would codify requirements already imposed on those in the regulated community that receive DWSRF funds; It focuses on flooding prevention/mitigation; federal/state grant money may be available; and increased cost for new construction not associated with DWSRF. ODW requests WAC input as ODW is still researching this possible amendment.

    Jane Nunn will develop proposed language and discuss it at the WAC meeting in March after she has gotten information from the ODW DWSRF staff.

22. Technical change that applies to the complete chapter • Change the order of some sections if doing so would make the regulations easier to understand or reference. One example: Regulations specific to lead and copper (12VAC5-590-375, -590-385, -590-405, & -590-532) are not grouped together but are grouped per category (monitoring, compliance, technique, and reporting). WAC input needed by March 2024 WAC meeting on changing the order of the sections.

    The consensus of the WAC was that no change is needed.

23. New technical item • Regulatory definition states that "boil water advisory" and "boil water notice" have the same meaning. Federal Safe Drinking Water Act and the National Primary Drinking Water Regulations do not define them, and the EPA and CDC primarily use "boil water advisory." Consensus is that the general public does not discern between the two terms. ODW's proposal is to amend the regulations to use "boil water advisory" instead of "boil water notice."

    It was discussed that in the Tier 1 public notification, can differentiate between the two by adding the word "precautionary" when it's unknown if the water is contaminated. There was discussion about the use of "precautionary."

    No opposition by the WAC members to the proposed change. The WAC members recommended ODW add a new regulation for notices that uses the language "do not use."

24. New substantive item • Confusion between this regulation and a manual/working memo. Proposed language: For each routine sample found to be total coliform positive, the owner shall collect a set of three repeat samples within 24 hours of being notified of the positive result. The department may extend the 24-hour limit on a case-by-case basis if the system has a logistical problem in collecting the repeat samples within 24 hours that is beyond its control."

    No opposition by the WAC members to the proposed change.

25. New substantive item • Current language: "Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis." Proposed language: "Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis. An example would be a loss of water pressure that results in the potential for contaminants to enter the depressurized area of a distribution system, such as a water main break, loss of water supply, demand exceeding supply, or closed valve."

    WAC members did not feel that providing an example as proposed by ODW is necessary. The WAC members suggested ODW revise the section to provide greater clarity, however."

Compliance, Enforcement & Policy Update

Thirteen serious violators identified in the October Enforcement Targeting Tool report from EPA.

To date, seven systems have returned to compliance.

The Enforcement Manual and Waterworks Operation Fee Regulations are still under executive branch review.

Staff update

ODW is currently operating at a 16% vacancy rate. ODW has other positions advertised, the issues we are having is finding engineers to fill those positions.

ODW is currently advertising for a Chief of Field Operations (formerly the Deputy Field Director).

Budget

ODW currently has 7 positions on hold awaiting the Governor's budget.

PFAS Phase 2

Robert Edelman is taking over the PFAS responsibilities. The UCMR 5 monitoring started January 1, 2023, and will run through 2025. Virginia currently has 62 water systems that have monitored for UCMR 5. The interesting thing is that there hasn't been that many detections above the MCLs. ODW is expecting the EPA to finalize the regulations within the new year.

Virginia has collected over 290 samples this year in what we are calling Phase 2.2 for PFAS monitoring program. ODW now has a PFAS dashboard on the website that is available for the public and press. Please note that the information on the website doesn't include the samples that Water systems have done independently.

Lead and Copper Revisions

The LCR improvements are currently located on the EPA webpage. Because of the number of pages of the Lead and Copper revisions, ODW will take a while to go over all of the information.

Waterworks will need to continue to focus on completing and submitting the Service Line Inventories followed by the notifications. ODW will offers technical assistance and job aids are on ODWs website. ODW will be rolling out a portal with training for the regulated community and will be providing a webinar at a later date.

Centralized Plan Review Program

ODW's staff shortage has changed the approval time. ODW is working on getting the Centralized Plan Review Program back on track. ODW is setting up a portal to submit plans.

Drinking Water Viewer implementation

Field Services Engineer Aaron Moses is working with ODW's vendor to provide more frequent updates and will be working on recordings, instruction videos, and training for waterworks.

If there are issues with incomplete data, please share with Aaron Moses directly.

EPA Cybersecurity Assessment Memo

The EPA is hosting a Cybersecurity tabletop exercise. Jessica Coughlin, Emergency Services Coordinator, encourages all operators and owners to take the course. Ms. Coughlin provided a slide for review during the meeting for those who want additional information.

Training Program

Julie Floyd is now the new Training Manager. She is working to make improvements to the operator certification, evaluation of operator training, improving internal training and Lead and Copper Rule Revisions training.

The municipal association is setting up a committee along with DPOR and AWWA. ODW is planning to monitor the committee. WPI is standing up a new initiative to attempt to provide certification for water drinking water and wastewater trainers.

Lead Testing

Please see attached slides. There are also links to recordings.

Public Comment

None

Conclusion

The 2024 WAC meetings are scheduled for March 13, 2024 (in person), June 12, 2024 (all virtual), September 18, 2024 (in person), December 11, 2024 (all virtual).

The meeting adjourned at approximately 12:45 p.m.

Waterworks Regulations

March 13, 2024

Jane S. Nunn, JD, MPA
Policy and Program Coordinator

Office of Drinking Water
Safe Drinking Water for a Healthy Virginia

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment

Remaining Topics

Those previously approved by the WAC on December 13, 2023, have been removed.
13 recommended amendments remaining for discussion:

- 13 substantive changes
- 3 technical changes
- Determine if subcommittee for Item #12 is needed

Item #1 – 12VAC5-590-10

- Substantive change
- Amend the definition of "operator" to clarify it is someone who has a license "with a classification equal to or higher than the classification of the waterworks or water treatment plant being operated" found in -590-461 B and C
- Proposed language: "Operator" means any individual with a valid license as a Waterworks Operator issued by the Virginia Department of Professional and Occupational Regulation with the requisite classification and skills employed or appointed by any owner, who is designated by the owner to be the person having full responsibility for the waterworks operations and any subordinate operating staff. The individual may be a supervisor, a shift operator, or a substitute in charge, and have duties including testing or evaluation to control waterworks operations. Not included in this definition are superintendents or directors of public works, city engineers, or other municipal or industrial officials whose duties do not include the actual operation or direct supervision of waterworks.
- No cost

Item #2 – 12VAC5-590-200 and -260

- Substantive changes to both
- Code of Virginia § 32.1-172 requires a comprehensive business plan as part of the application for a permit to "establish, construct or operate any waterworks or water supply in the Commonwealth…"
- The comprehensive business plan in the Waterworks Regulations is the Waterworks Business Operation Plan (WBOP)
- WBOP is identified as a requirement to obtain a construction permit under 12VAC5-590-200 A 5
- WBOP is not identified as a requirement to obtain an operation permit under 12VAC5-590-260
- § 32.1-172 B includes an option for ODW to waive the requirement to submit a WBOP for "applicants who have demonstrated a history of acceptable compliance with waterworks regulations"
- § 32.1-172 F prohibits the assignment or transfer of a construction or operation permit

Item #2 cont. – 12VAC5-590-200

12VAC5-590-200 A proposed language and addition of -200 H (no changes to B-G) (in red)

A. Construction permits for new waterworks or for changes, alterations, or improvements to existing waterworks are issued by the commissioner, but all requests for a construction permit are directed initially to the department. The procedure for obtaining a construction permit includes the following steps:

1. Owners shall notify the department of all proposed construction projects, except distribution main projects that are permitted under the provisions of a general permit for distribution mains (see 12VAC5-590-300), or when the project is for the extension of water distribution piping having a diameter of eight inches or less and serving less than 15 connections (see § 32.1-172 A of the Code of Virginia).
2. An owner intending to make changes, alterations, or improvements to a waterworks for which a construction permit has been granted shall apply for an additional or amended permit.
3. The submission of a Waterworks Construction Permit Application to the department on a form approved by the department.
4. Based on the application received, the department shall notify the owner if a preliminary engineering conference is required. A preliminary engineering conference shall be required for projects proposed using alternative delivery methods authorized under § 2.2-4380 of the Code of Virginia. The preliminary engineering conference shall define the scope of the project, project phasing, milestones, and deliverables. An evaluation procedure shall be agreed upon and the conference shall be documented.
5. The submission of preliminary engineering or intermediate design reports if required by the department. The need for and scope of the reports shall be established during the preliminary engineering conference.
6. The submission of a waterworks business operation plan that demonstrates the waterworks' TMF capacity to operate and maintain a waterworks. The waterworks business operation plan consists of four primary components:
    a. Waterworks information that includes ownership data, a waterworks facility description, operator requirements, staffing needs, and staff training.

Item #2 cont. – 12VAC5-590-200 cont.

-200 A proposed language and addition of -200 H (cont.)

b. Management information that identifies critical business practices necessary for effective management and operation of the waterworks. Management information includes the requirements essential for managing and operating the waterworks and defines the processes, methods, and tasks necessary for complying with this chapter.

c. Financial information that identifies projects, considering the waterworks revenues and cash flow, which will be sufficient for meeting the cost of operation and maintenance for at least five full years from the initiation of operations. Financial information also demonstrates the owner's ability to direct the waterworks' finances to support technical and managerial capacities and includes a self-assessment consisting of the following financial metrics: operating cash reserve, debt service coverage, emergency reserve, and revenue sufficiency.

d. Sustainability improvements that are identified throughout the waterworks business operation plan to address TMF aspects of the waterworks' business processes that need improvement.

7. An owner applying for an additional or amended permit may request that the department waive the requirement to submit a waterworks business operation plan. Only applicants who have demonstrated a minimum of a 3-year history of acceptable compliance with the requirements of this Chapter as determined by the department will be considered for this waiver.

8. The submission of plans, specifications, final design criteria, and other supporting design data. This submission may include manufacturers equipment data sheets, drawings, and specifications when the specific materials or equipment to be used in the project have been preselected by the owner with the engineer's concurrence.

…

H. In accordance with § 32.1-172 F of the Code of Virginia, a construction permit cannot be assigned or transferred to another party.

Item #2 cont. – 12VAC5-590-200 cont.

- Informal subgroup suggested additional language for the proposed WBOP waiver language in -200 A 7, which currently reads: An owner applying for an additional or amended permit may request that the department waive the requirement to submit a waterworks business operation plan. Only applicants who have demonstrated a minimum of a 3-year history of acceptable compliance with the requirements of this Chapter as determined by the department will be considered for this waiver.
- Preference was for some type of automatic waiver under certain, specific circumstances.
- Suggestions are: 1) WWs has no history of non-compliance, and the application is for no more than a set % (threshold needs to be determined) increase of the capacity of the expansion; 2) WBOP waived for applicant seeking an additional or amended permit who operates other community WWs with permitted capacity of 0.5 MGD or more and has history of acceptable compliance subject to ODW's discretion.
- More discussion is needed, both internal to ODW and with the WAC

Item #2 cont. – 12VAC5-590-260

Proposed language (in red):

A. The owner must not operate a waterworks without first having obtained an operation permit except as provided in 12VAC5-590-290.

B. The commissioner will issue an operation permit after review of the application submitted by the owner if the commissioner determines that the waterworks will provide potable water. The application includes the following:

1. A statement of completion of construction or, at the department's discretion in the absence of a proper statement of completion, a set of as-built drawings and specifications or information meeting the requirements of 12VAC5-590-220 D and E as appropriate;
2. All required certifications and test results;
3. Inspection by the department that the project had been satisfactorily completed in accordance with the approved design documents as appropriate;
4. Verification that bacteriological test results comply with the requirements set forth in Part II of this chapter, as appropriate; and
5. A waterworks business operation plan that meets the requirements set forth in 12VAC5-590-200. The owner may rely on the waterworks business operation plan that was submitted with the construction permit application unless the information in it is no longer current.

C. The commissioner will establish the type (community waterworks, NTNC, or TNC), classification, and permitted capacity of the waterworks and specify these on the operation permit. Conditions may be included with the permit for operator, monitoring, and reporting requirements.

D. In accordance with § 32.1-172 F of the Code of Virginia, once issued, an operation permit cannot be assigned or transferred. Any new owner, assignee, or transferee of a waterworks must apply for an operation permit and must include a waterworks business operation plan that meets the requirements set forth in 12VAC5-590-200 with the application.

Item #3 – 12VAC5-590-461 E

- Substantive change
- Add requirement to -590-461 for waterworks to notify ODW when a new "operator-in-charge" has been hired
- WAC suggested a 30-day time period and removal of redundant language
- Proposed language: -590-461 E, Change in owner's designation of operator. When an owner has changed the operator (as defined in 12VAC5-590-10) designated as having responsibility for waterworks operations, the owner shall notify the department within 30 days of such designation and will provide the operator's name, classification, and DPOR certification number.
- No or minimal cost

Item #4 – 12VAC5-590-461 A 1(a)

- Technical change
- -590-461 A 1(a) has a misplaced comma
- Without moving the comma, this causes consecutive waterworks serving > 50,000 people to be classified as Class 1, which is not ODW's intent
- WAC suggested adding numbers for clarity
- Proposed language: A waterworks or a water treatment plant: (i) serving 50,000 or more persons~~,~~ or having a water treatment plant capacity of 5.0 MGD or more, and (ii) employing conventional filtration or chemical coagulation in combination with membrane filtration.
- No cost

Item #5 – 12VAC5-590-475 B

- Substantive change
- Comments received that well abandonment standards are too burdensome with suggestion to amend to match the Private Well Regulations' requirements (see 12VAC5-630-450 on next slide)
- OEHS' response was that private well regulations are based on the cost that a homeowner could be expected to afford
- DEQ's recommendations:

  Retain the existing text in B 1, B 2, B 3, B 5, and B 10.

  B 5 includes a first sentence that substantially duplicates the Private Well Regs, plus a second sentence that is absent from the Private Well Regs (both current and amended versions). We recommend retaining B 5 to preserve the requirement in the second sentence.

  Replace the other requirements (existing B 4, plus B 6 through B 9) with a single provision to the effect that, "Permanent abandonment of a well shall be in accordance with both this subsection and subsection C of 12VAC-630-450." (This would accommodate both the current requirements and the future, amended requirements of the Private Well Regs.)
- Reduced cost

Item #5 – 12VAC5-590-475 B cont.

- Proposed language, -590-475 B Permanent abandonment.

  1. Well abandonment shall be supervised by a certified water well systems provider.
  2. All well abandonments shall be documented on a Uniform Water Well Completion Report, Form GW-2, and submitted to the department within 30 days of completing the physical abandonment.
  3. Groundwater wells that are abandoned shall be sealed by methods that will restore to the fullest extent possible the controlling geological conditions that existed before the wells were constructed.
  4~~5~~. The well shall be checked from land surface to the entire depth of the well before it is sealed to ascertain freedom from obstructions that may interfere with sealing operations. Effort shall be made to remove or clear any obstacles that may prohibit sealing by grouting the complete well depth.
  5~~10~~. The location of the well shall be permanently documented for future reference.
  6. Permanent abandonment of a well shall be in accordance with both this subsection and the Private Well Regulations, 12VAC5-630.

- Reduced cost

Item #6 – 12VAC5-590-630 D

- Technical change
- In -590-630 D, remove the references to "starting January 1, 2023…" since that date is now past
- Proposed language: "~~Starting January 1, 2023, persons~~ Persons testing and repairing backflow prevention assemblies and backflow prevention devices shall be certified by a Commonwealth of Virginia tradesman certification program (identified by DPOR as backflow prevention device workers)."
- WAC approval given at December 2023 meeting if DPOR was not going to eliminate the certification program for backflow prevention device workers
- Code of Virginia § 54.1-1129 B requires DPOR to have a certification program for backflow prevention device workers and no bills were submitted to the GA this session to change that
- No cost

Item #6 – 12VAC5-590-830

- Following discussions with DEQ, propose amending -830 to:

12VAC5-590-830, Surface water sources~~; quantity; quality; development structures~~.

A. A surface water source includes all ~~tributary~~ streams, rivers, ~~and drainage basins, natural~~ lakes, and ~~artificial reservoirs or impoundments~~ other bodies of natural or impounded waters, and the tributaries thereto, above the point of water supply intake.

~~1~~B. The quantity of water from the surface water source, plus water from other sources available to and used by the waterworks, ~~shall~~ must:

~~a~~1. Be adequate to supply the water demand of the waterworks service area;

~~b~~2. Provide a reasonable surplus for anticipated growth; and

~~c~~3. Be adequate to compensate for all losses, including evaporation, seepage, and flow-by requirements~~,~~.

C. A waterworks that is using or will use a surface water source and is applying for a construction permit or operation permit must provide to the department:

1. A Virginia Water Protection (VWP) permit issued by DEQ pursuant to the State Water Control Law, Chapter 3.1 of Title 62.1 of the Code of Virginia, for the surface water withdrawal or,

2. If a VWP permit has not been issued and DEQ certifies that such permit is not required pursuant to the State Water Control Law, specifications for the capacity of the intake structure, historical withdrawal rates, and the minimum withdrawal rate available during a day and recurring every 30 years (30 year – one day low flow). To generate the report for this, data is to be used to illustrate the worst drought of record in Virginia since 1930. If actual gauge records are not available for this, gauges are to be correlated from similar watersheds and numbers are to be synthesized; and

3. Any other information the department deems appropriate.

Item #6 – 12VAC5-590-830 cont.

D. Nothing herein, including the calculation of the minimum withdrawal rate available during a day and recurring every 30 years (30 year – one day low flow), shall be construed as applying to the determination of any existing riparian rights or to the owner's responsibility to obtain authorizations from other state agencies for water withdrawals, including the preservation of instream flow from surface water sources in accordance with the State Water Control Law, Chapter 3.1 of Title 62.1 of the Code of Virginia.

E. The owner shall conduct, or have conducted, ~~a sanitary survey and a study~~ an assessment of the factors, both natural and man-made, that will affect the quality and quantity of the surface water ~~at the~~ source. The results of the ~~sanitary survey~~ assessment shall be submitted to the ~~division~~ department, along with the application for a construction or operation permit. ~~Such survey and study~~ The assessment shall include~~, but shall not be limited to~~:

1. Obtaining samples over a ~~sufficient~~ period of time acceptable to the department to assess the bacteriological, physical, chemical, and radiological characteristics of the surface ~~source~~ water source;

2. Determining future uses and effects of impoundments or reservoirs;

3. Determining the degree of control over the watershed that may be exercised by the owner; ~~and~~

4. Locating potential sources of pollution within 5 miles upstream from the surface water intake; and

~~4~~5. Assessing the degree of hazard to the ~~source by possible spillage~~ surface water source resulting from a potential release of materials that may be toxic, harmful, or detrimental to treatment processes.

F. ~~Intake~~ Surface water intake structures shall provide for:

1. Withdrawal of water from at least three levels in impoundments or reservoirs. Withdrawal of water from more than one level may be required in run-of-the-stream intakes if the quality varies with depth;

2. Separate facilities for release of less desirable water held in storage at impoundments or reservoirs;

3. Screens on intake ports with provisions for adequate cleaning. Screen opening size and velocity may be restricted by federal or state permit;

4. Prevention of flooding of access walkways and control valves of intakes on multiple purpose reservoirs; and

5. ~~Velocity of flow through~~ Flow velocity through the inlet structure ~~such~~ so that frazil ice will be held to a minimum.

Item #7 – 12VAC5-590-882 G

- Substantive change
- Update -590-882 G to reflect a requirement for inline laser-type turbidimeters
- Applicable only to membrane filtration processes.
- Requirement in WM880 so already asking waterworks to meet this standard
- Proposed language (in red):

G. Turbidity monitoring. Continuous indicating and recording equipment meeting the requirements of 12VAC5-590-770 B shall be provided for the following locations:

1. Source water;
2. Pretreated water, such as by coagulation, flocculation, and sedimentation (if applicable);
3. Filtrate from each membrane unit (required detection limit of 0.002 NTU with resolution of 0.001 NTU or less); and
4. Combined filter effluent, where more than one membrane unit is installed (required detection limit of 0.002 NTU with resolution of 0.001 NTU or less).

- Cost increase unlikely

Item #8 – New Regulation

- Substantive change
- Looked at moving flood risk management standard from the DWSRF Program Guidance to our regs
- This would have codified requirements already imposed on those in the regulated community that receive DWSRF funds
- Decision made to table this as the federal SRF requirement for an environmental assessment is not found in the federal or state drinking water laws and regulations, so ODW lacks the authority to require this

Item # 9 – 12VAC5-590-540 A 1(l)

- New substantive item to Public Notice requirement
- Current language: Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis.
- Proposed language: Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the commissioner or department on a case-by-case basis. An example would be a loss of water pressure that results in the potential for contaminants to enter the depressurized area of a distribution system, such as a water main break, loss of water supply, demand exceeding supply, or closed valve.
- No cost

Item #10 – 12VAC5-590-505

- New substantive item
- Extend requirement for emergency management plan to include extended water outages that are unrelated to power outages
- SDWA Sec 1413(a)(5) – state "has adopted and can implement an adequate plan for the provision of safe drinking water under emergency circumstances including earthquakes, floods, hurricanes, and other natural disasters as appropriate."
- Proposed language (in red):

12VAC5-590-505. Emergency management plan for extended power or water system outages.

A. The owner of a community waterworks (including consecutive waterworks) shall develop and maintain an emergency management plan for extended power or water system outages.

B. The plan shall be kept current and shall be retained at a location that is readily accessible to the owner in the event of an extended power or water system outage.

C. The owner of a community waterworks shall certify in writing to the department that the plan has been completed.

D. The plan shall address the following where applicable:

1. Identification of the criteria (events, duration of power or water system outage, etc.) that will initiate activation of the plan.
2. How the owner will respond to an extended power outage lasting a minimum of five days or water system outage lasting a minimum of x days.
3. Procedures for obtaining and distributing potable water in the event that the primary sources become unavailable.
4. Notification procedures and example notices to the public and media (local radio stations, television stations, local newspapers, etc.) including conservation notices and boil water advisories.
5. Emergency disinfection procedures for the distribution system and storage tank.
6. The point of contact for the department.
7. The points of contact for the waterworks personnel who should be notified.
8. The point of contact for the Local Emergency Coordinator designated by the Virginia Department of Emergency Management.
9. For a power outage, the points of contact for the electric power, natural gas, and propane distributors, or other energy supplier to the waterworks.

- Low cost

Item # 11 – 12VAC5-590-476

- New substantive language
- Emergency wells are a type of inactive well, but they need different treatment than a well that's being reactivated due to necessary equipment repairs
- Existing regulation doesn't include language specific to emergency wells
- Proposed language (in red):

A. The owner must notify the department of the intent to reactivate a well.

B. Before bringing the well into service, the well must be pumped to waste (purged) for a minimum of five well volumes but for not less than 30 minutes. The purged well water will be discharged in a manner so that it will not return to the well, directly or indirectly, during the pumping period.

C. After the well is pumped, water quality samples must be collected. Two samples will be collected at least 30 minutes apart and tested for the presence of total coliform and E. coli. If the well has been inactive for one or more years, it must also be tested for total coliform density (MPN), nitrate, and, if determined by the department, inorganics, VOCs, SOCs, and radionuclides. Satisfactory test results must be obtained before placing the well into service.

D. A well yield and drawdown test may be required by the department before bringing the well into service. The test will be performed in accordance with 12VAC5-590-840 H, as applicable.

E. A well may be activated for emergency use before receipt of satisfactory monitoring results, even if public health and safety are unknowns and may be at risk, as determined by the department. However, in these circumstances, a special water advisory must be approved by the department and issued by the waterworks at the same time the well is activated.

F. Emergency wells

1. An emergency well is an inactive well approved by the department that is available for emergency purposes only. An emergency well must have a full developmental series of tests on record with the department. If reactivated, an emergency well should be returned to an inactive status as soon as possible.
2. An inactive emergency well must be tested annually for raw water MPN and nitrate. Quarterly raw water bacteriological testing may be required by the department. Additional routine monitoring may be required by the department if chronic contaminants are of special concern, using one or more of the following tests: inorganics, VOCs, SOCs and Radionuclides.
3. An emergency well must be exercised on a routine basis.
4. If bacteriological contamination of the emergency well is of concern, the department may require that the well be disinfected in accordance with AWWA C654-13. If continuous chlorination equipment is in place, the department may waive disinfection of the well.
5. If the emergency well serves a community waterworks and will be used for a period of more than 3 months, then it must be tested for inorganics, VOCs, and radionuclides. If the emergency well serves a NTNC waterworks and will be used for a period of more than 3 months, then it must be tested for inorganics and VOCs. Testing for SOCs may also be required.

Item #12 – HB220, Water and Wastewater Facility Licensed Operator Staffing

- New substantive item
- Recognize the need for this due to operator shortage
- Bill has unanimously passed both houses of the General Assembly
- The part of the Bill that impacts waterworks would add a new section to the Code of Virginia, § 32.1-172.1, Attendance by licensed operator
- Regulations will be needed if/when the bill becomes law
- ODW discussing possible regulatory language and looking for WAC input
- Cost savings
- Bill's language:

§ 32.1-172.1 Attendance by licensed operator

A. The owner of every waterworks or treatment facility identified as a classified waterworks or treatment facility by the Department shall employ or contract an operator who holds a current waterworks operator license, issued in accordance with Chapter 23 (§ 54.1-2300 et seq.) of Title 54.1, of the appropriate class for the classification of the waterworks or treatment facility, as determined by the Board, or higher class at the owner's option. If the position of the licensed operator of the appropriate class is unexpectedly vacated due to death, extended illness, firing for cause, resignation, or similar cause, the classified waterworks or treatment facility owner shall notify the Department promptly and in accordance with any specific timeframe directed by the Board. The Department shall temporarily waive the licensed operator requirement for the interim, provided the owner (i) informs the Department in writing of its designation of another licensed operator responsible for interim operations within five days of the vacancy, (ii) informs the Department in writing within 10 days of the vacancy arising of its plan to hire a replacement licensed operator of the appropriate class as soon as practicable, (iii) implements the hiring plan diligently, and (iv) provides a monthly report to the Department on the implementation and progress of such hiring plan. The Department may revoke the temporary waiver if the Department finds that continued operation pursuant to the waiver presents a public health threat due to statutory, regulatory, or permit violations.

B. Where a waterworks or treatment facility identified as a classified waterworks or treatment facility by the Department is equipped with adequate technological capability, the Department shall credit remote monitoring of the facility by a licensed operator of the appropriate class as operator attendance, provided that the owner submits and the Department approves a remote monitoring plan demonstrating that the waterworks or treatment facility possesses sufficient technology for the remote operator to adequately monitor the waterworks or treatment facility and manage onsite operators with a lower license class, mechanics, or other staff to operate the waterworks or treatment facility under the remote operator's direct supervision. In determining whether to approve a remote monitoring plan for multiple waterworks or treatment facilities, the Department may consider the number of waterworks or treatment facilities the remote operator is monitoring simultaneously, whether the multiple facilities being monitored remotely are under common ownership, whether the remote operator is employed by the owner of the multiple facilities, and whether occasional in-person attendance is provided, among other factors. The Department may cease crediting remote monitoring if the Department finds that continued operation pursuant to the remote monitoring plan presents a public health threat due to statutory, regulatory, or permit violations. The Department shall not credit remote monitoring by an operator without the appropriate license class who is operating the waterworks or treatment facility pursuant to a temporary waiver issued under paragraph A of this section.

C. Reduced operator attendance for Class I through Class 6 waterworks may be considered by the Department on a case-by-case basis.

Item # 13 – All affected regulations

- Technical changes
- No official mandate yet, but it's expected that the Office of the Registrar will decide in the near future that agencies can no longer use "shall" in regulatory language and will be asked to change "shall" to "must," "will," or other similar language to clarify intent
- Replacements are being done because multiple court decisions have found that "shall" sometimes means "may"
- Doing this now rather than waiting until the next time the Waterworks Regulations are amended
- More than 2,600 replacements, so WAC will not be asked to review them
- No cost

Item # 14 – All regulations

- Governor's mandate that agencies reduce discretionary requirements by 25%
- Waterworks regulations have approximately 1,400 discretionary requirements, so will look at what can be reduced without risking public health
- Internal discussions will be held with the intent of presenting findings to the WAC at the June 2024 WAC meeting

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Compliance, Enforcement & Policy Update

- The January Enforcement Targeting Tool (ETT) report – 9 Serious Violators. Down from 13 the previous quarter.

- Three of the systems were already under an administrative order and one of those has subsequently had its order terminated because they completed all requirements of the order.

- One other system is back in full compliance, and two others are nearly in full compliance.

- Recently terminated a couple of consent orders because they have satisfied all requirements.

Compliance, Enforcement & Policy Update

- The amendments to the Waterworks Operation Fee regulations were approved by the Board of Health in June. They are currently undergoing review at the Secretary of Health and Human Resources' office.

- The revised Enforcement Manual is currently undergoing review at the Office of Regulatory Management within the Governor's Office. If it is approved, the next step after that will be Town Hall for public comment.

Waterworks Advisory Committee
PFAS
Lead and Copper Rule

March 13, 2024

Robert D. Edelman, PE
Director, Division of Technical Services

Office of Drinking Water
Safe Drinking Water for a Healthy Virginia

EPA's PFAS regulation timeline

- EPA is targeting early 2024 to issue the final regulation
  - Rumblings about GAO reviewing EPA's cost estimates
  - **Any time now!**
- The proposed regulation was published in the Federal Register on March 29, 2023
- The comment period ended on May 30, 2023
- Implementation of certain aspects of the final rule will start almost immediately upon publication (prior to the compliance date)
  - **Initial monitoring to be completed in the three years between the publication date and the compliance date**

Virginia PFAS Sampling Program

PFAS Sample Summary

parts per trillion (ppt)

		Phase 1 2021	Phase 2.1 2022	Phase 2.2 2023	Total
PFOA	(above 4.0)	4 systems	None	5 systems	9 systems
PFOS	(above 4.0)	5 systems	3 systems	9 systems	15 systems
GenX	(above 10)*	1 system	1 system	None	1 system
PFBS	(above 2000)*	None	None	None	None
PFNA	(above 10)*	None	None	None	None
PFHxS	(above 9)*	None	None	1 system	1 system
Hazard Index (see above*)		1 system	1 system	1 system	2 systems
Waterworks		45	48	221	274
Population Served		5,226,000	557,000	3,934,000	5,849,000

ODW PFAS Sampling Dashboard

Phase 2.2 Samples Above Proposed MCL

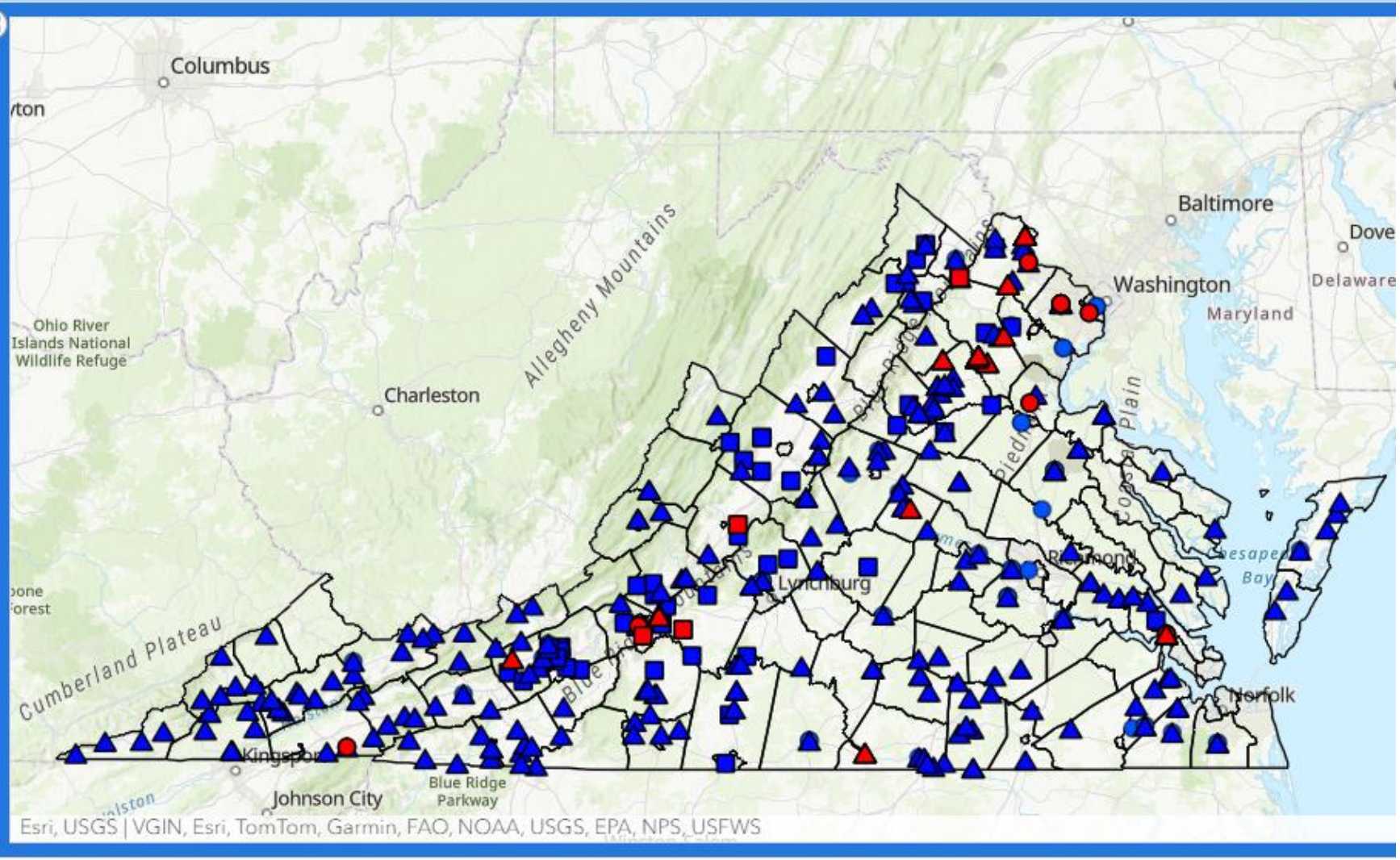
Phase 2.1 Samples Above Proposed MCL

Phase 1 Samples Above Proposed MCL

Phase 2.2 Samples

Phase 2.1 Samples

Phase 1 Samples



PFAS and UCMR 5

- UCMR 5 monitoring started January 1, 2023 – runs through December 31, 2025

- All waterworks 3,300+, plus a “nationally representative sample” of systems < 3,300
  - >= 3,300 150 systems
  - < 3,300 19 systems

Must monitor for 29 different PFAS compounds, plus lithium

- 25 PFAS by Method 533
- 4 PFAS by Method 537.1

UCMR5 PFAS Summary

Data Release 3 Summary (February 2024)

Analyte	Criteria parts per trillion (ppt)	Groundwater Sources	GUDI Sources	Surface Water	Total
PFOA	(above 4.0)	3	None	3	6
PFOS	(above 4.0)	3	None	7	10
GenX	(above 10)*	None	None	None	None
PFBS	(above 2000)*	None	None	None	None
PFNA	(above 10)*	None	None	None	None
PFHxS	(above 9)*	None	None	None	None
Hazard Index (see above*)		None	None	None	None
Waterworks		13	4	59	69

Phase 3 – What's Next?

Phase 3 efforts

- Sampling Plan to focus on:
  - Small or disadvantaged communities (2024)
  - Not in UCMR5
  - Past "hits"
  - Unknowns
- Funding from EPA
  - PWSS Grant – Emerging Contaminants
  - Emerging Contaminants in Small or Disadvantaged Communities Grant
- New Laboratory Contract
- Quality Assurance Project Plan (QAPP)
- Sampling team

EPA Announces the Lead and Copper Rule Improvements

November 30, 2023 – On EPA's website:

- Prepublication version (622 pages)
- Federal Register – December 6 – (213 pages of tiny print)
- Press release
- General Fact Sheet (3 pages)
- Technical Fact Sheets: States and Public Water Systems (5 pages)
- FAQ: States and Public Water Systems (8 pages)
- Technical Fact Sheet: Calculating Service Line Replacements (4 pages)
- Technical Fact Sheet: Deferred Deadlines for Service Line Replacement (2 pages)
- Technical Fact Sheet: Inventory Validation Requirements (2 pages)
- Comparison Guide for Public Water Systems and Primacy Agencies (13 pages)
- Safewater LCR Database and Associated Files
- Additional Information on Lead Service Lines Including Identifying Funding Sources

LCRR Training and Technical Assistance

ODW Contracted with TruePani to provide training and technical assistance.

- In-person training complete in June 2023
- One-on-one technical assistance (TA) is available NOW
- TA Contact information on LCRR Guidance web page:
  https://www.vdh.virginia.gov/drinking-water/lcrr-guidance/
- TA intended for small waterworks (<10,000 persons)
- Weekly Office Hours:
  - Community Waterworks - Wednesdays at 12 noon.
  - NTNC Waterworks - Tuesdays
  - Sign up: valcrr@truepani.com

Submitting your Service Line Inventory

You are not done until you upload your service line inventory through SWIFT Submittals and click SUBMIT TO STATE.

ODW rolled out SWIFT Submittals:

- SWIFT Submittals Production – went live December
- ODW staff received training December 14
- ODW provided training webinars:
  - February 8 – Community Waterworks
  - February 13 – NTNC Waterworks
- Recorded and posted with slide decks on LCRR Guidance website
- Additional FAQs are in the works!

GEC Submittals - Service Line Inventory
As of 3/4/24

	Submitted	In Progress	Total
Community	4	6	10
NTNC	13	5	18
Total	17	11	28

LCRR – Consumer Notification Requirements

ODW will deploy a webinar in summer 2024 to focus on:

- Public Notification following Pb ALE (Tier 1)
- Public Education delivery following Pb ALE
- Consumer Notification following lead tap sampling – sharing sample results with customers
- Consumer Notification for customers with Lead, GRR, Unknown service lines
  - Due 30 days after completion of Service Line Inventory
  - Due Annually thereafter

LCRI proposes to roll many, but not all, LCRR changes back to the July 1, 2020 CFR

40 CFR 141.80 through 141.91, **as codified on July 1, 2020**,

141.80 General requirements – contains 12/16/21 effective date, 10/16/24 compliance date, lead trigger level, lead action level, LCRR 90th percentile level, LCRR 90th percentile calculation methodology, LSL replacement required by trigger level.

141.81 Applicability of corrosion control treatment steps to small, medium, and large water systems (entirely new LCRR requirements)

141.82 Description of corrosion control treatment requirements (entirely new LCRR requirements)

141.83 Source water treatment requirements (nothing new with LCRR)

141.84 Lead service line replacement requirements (LSL Replacement Plan, Operating procedures for goosenecks, partial replacements, full replacements, goal and mandatory LSL replacements)

141.85 Public education and supplemental monitoring and mitigation requirements.

141.86 Monitoring requirements for lead and copper in tap water – sample site selection

141.87 Monitoring requirements for water quality parameters

141.88 Monitoring requirements for lead and copper in source water.

141.89 Analytical methods.

141.90 Reporting requirements.

141.91 Recordkeeping requirements.

What parts of the LCRR are unchanged by LCRI?

except systems must also comply with 40 CFR 141.84(a)(1) through 141.84(a)(10) (excluding §§ 141.84(a)(7)); 141.85(e); 141.90(e)(1) and 141.90(e)(13); 141.201(c)(3); 141.202(a)(10); and 141.31(d), as codified on July 1, 2023.

141.84(a)(1) through (a)(10) is the *Lead service line inventory – no change except:*

- 141.84(a)(7)) is the methodology for calculating the number of SL replacements – is changing

141.85(e) – Notification of known or potential service line containing lead

141.90(e)(1) – Reporting requirement – water systems must submit inventory to state no later than October 16, 2024

141.90(e)(13) – Reporting requirement – water systems with LSLs must certify on an annual basis that the system has complied with the consumer notification requirements of lead service line materials.

141.201(c)(3) – public notice requirement – a copy of the notice must also be sent to the primacy agency and the Administrator (as applicable)

141.202(a)(10) – tier 1 public notice – Exceedance for the action level for lead

and 141.31(d) – reporting requirements – Water system, within 10 days of completing a PN, must submit to the primacy agency a certification that it has complied with PN regulations…

LCRR/LCRI Update

October 16, 2024, is the compliance date - what is required then?

- Complete and submit the Service Line Inventory to the State
- ~~Submit a Lead Service Replacement Plan to the State (if required)~~
- ~~Compile and submit a list of schools and child day centers served~~
- ~~Revise and submit the LCR sampling plan based on the inventory, to reflect any changed monitoring sites~~
- Prepare for required Public Notifications and Consumer Notifications due thereafter

Check the ODW LCRR Guidance Website for updates!