Drinking Water Permitting & Compliance Updates

South Carolina Department of Health and Environmental Control

Drinking Water Permitting & Compliance Updates

Richard Welch, PE, Manager
Drinking Water Permitting & Compliance Section
• Staffing
• FIFRA
• PFAS
• Lead & Copper
• Bits & Pieces
Staff

• Permitting  – full staff of 3 review engineers
  • Rene Chavis; Tracy Scott; Kevin King

• Compliance – half staff 2/4 engineers
  • Lindsey Bounds; Mohammad Korkzan

• Backflow – new program expert & trainer!!!
  • Steve Fox (presenting later!)
Backflow Certification

• Steve Fox joined our team November 1

• Currently planning classes (probably 2 in Columbia in Nov/Dec)

• Looking for places to have training; contact Rich or Steve if you’d like to host
  • Classroom space for lecture; wet lab space for hands-on
  • Can get your people in the class if you host

• If you currently have a certification, you can go through a recert lab & not repeat the full class
FIFRA

• Federal Insecticide, Fungicide, & Rodenticide Act - “Pesticide regulation”

• Meant to protect national food supply from overuse/over application of pesticides

• Was not intended for drinking water; BUT, disinfectant chemicals meet the definition of “killing microbes” and therefore must be registered
FIFRA

• If you are using a disinfectant, that disinfectant MUST be registered with FIFRA

• Clemson Office of Pesticide Regulation is responsible for implementation

• [https://www.clemson.edu/public/regulatory/pesticide-regulation/](https://www.clemson.edu/public/regulatory/pesticide-regulation/)

• Applicability:
  • Swimming pools & water parks
  • Wastewater treatment systems
  • Drinking water treatment systems
FIFRA for Drinking Water

• All new permits
  • Review phase: Statement from design engineer or owner that chemicals used meet FIFRA
  • Permit: All permits will have a special condition statement outlining FIFRA

• All existing utilities that treat
  • You will get a letter from outlining requirements and links for more information
PFAS

• Per- and Polyfluoroalkyl Substances
• Group of man-made chemicals (3000)
• Includes PFOA, PFOS, GenX, & others
• Manufactured & used in a variety of industries around the globe since the 1940s
• PFOA & PFOS most extensively produced & studied

• Very persistent in the environment & in the body

• Don’t break down and they can accumulate over time

• There is evidence that exposure to PFAS can lead to adverse human health effects
PFAS – EPA Efforts

• Hosted meetings & travelled to States
• Developed a PFAS management plan
• Developed a laboratory analysis method
• Initiated monitoring under the UCMR3
• Established drinking water health advisory for PFOA/PFOS
  • 70 parts per trillion combined for lifetime exposure
PFAS – DHEC Efforts

- Conducted monitoring under UCMR3
  - One detection at 1 SWTP, not repeated
  - Detection limit probably wasn’t appropriate

- Participated in numerous workshops, meetings, info sessions to educate staff and others

- Developed PFAS strategy (currently in draft) to guide DHEC Bureau of Water in future actions
  - Evaluate presence in SC Drinking Water
  - Population exposure at concentrations of concern
DHEC PFAS Strategy Document

- Initiated to guide the Bureau of Water going forward
- Peer-reviewed by other DHEC program areas and Drinking Water Technical Advisory Committee
- Will be used to guide data collection to effectively and efficiently use limited resources
- Will lead to better understanding of potential health concerns
- Will be used for more informed decisions regarding the need to regulate in drinking water
EPA Future Efforts

- Committed to developing an MCL for PFOA/PFOS
- Determining whether an MCL is appropriate for more PFAS
- National monitoring in UCMR5
- Rapidly expanding research efforts
  - Improved detection
  - Better understanding of effective treatment/removal
  - Better understanding of toxicity on other PFAS
DHEC Future Efforts

• Guided by PFAS strategy

• PFAS weren’t manufactured in SC,
  • It has been used as an ingredient in manufacturing other products
  • Many consumer products also shed PFAS into the environment

• The Bureau of Water isn’t interested in identifying new sources, rather, we want to determine where drinking water may be impacted
EPA Proposed LCR Revisions

• New regulation for Lead & Copper to reduce lead exposure in DW where it’s needed most
  • “Find & Fix”

• Proposed on November 13, 60-day comment period open (January 13, 2020)

• Six key focus areas
LCR: Identify areas most impacted

• Require lead service line inventory

• Pay attention to individual locations with elevated lead

• Identify cause and mitigate the problem
LCR: Strengthen Treatment Requirements

• Revise requirements for OCCT based on sampling

• Establish new trigger level of 10 ppb
  • Systems currently treating for corrosion would have to re-optimize the treatment if trigger exceeded
  • Systems that don’t currently treat would have to conduct corrosion study if trigger exceeded
LCR: Replace Lead Service Lines

• Replace system-owned portion when customer replaces their portion

• Conduct outreach & initiate LSL replacement when trigger level exceeded

• Above trigger, below action level – Work w/ DHEC to set replacement goal

• Above action level – replace 3%/year

• Small systems have more flexibility
LCR: Increase Sample Reliability

• Improve tap sampling procedures
• Wide-mouth bottles
• Prohibit flushing & aerator cleaning
• Sample in homes that have LSL
• Sample more frequently where higher levels of lead found
LCR: Improve Risk Communication

• Notify customer of action level exceedance w/in 24 hours

• Make inventory publicly available

• Regular outreach to homeowners w/ LSL
LCR: Protecting Children in Schools

• Community WS sample each school & child care facility on their system

• Provide results

• Provide info on actions school/child care can take to reduce lead
Bits & Pieces
WIIN Act

- Water Infrastructure Improvements for the Nation

- Established grants to states in 3 areas:
  - Assistance for small & disadvantaged communities
  - Reducing lead in DW
  - Lead testing in school & child care program DW

- These are different than proposed LCR revisions
AWIA

• America’s Water Infrastructure Act

• Community WS serving more than 3,300 people
  • Develop or update risk assessments
  • Develop or update emergency response plans

• Assessments must include 6 areas; may include others

• Emergency Plans include 4 areas

• Certify to EPA when complete
AWIA: Assessments Must Include

- Risk from malevolent acts & natural hazards
- Resilience of source water, treatment, storage & distribution, & electronic/computer facilities/equipment
- Monitoring practices
- Financial infrastructure
- Use, storage, & handling of chemicals
- Operation & maintenance of system
AWIA: Emergency Plans Must Include

• Strategies to improve resilience including physical and cyber security

• Plans & procedures to use in an event

• Actions, procedures, & equipment that can be used; including alternative source water

• Strategies that can aid in detection of acts or events
CONTACT US

Richard Welch, PE, Manager
Drinking Water Permitting & Compliance Section
SC DHEC – Bureau of Water

welchra@dhec.sc.gov
803-898-3546