THE STATE OF EMERGING CONTAMINANTS IN NEW YORK

PRESENTED BY MICHAEL BURKE, PG, CHMM

PRESENTATION OUTLINE

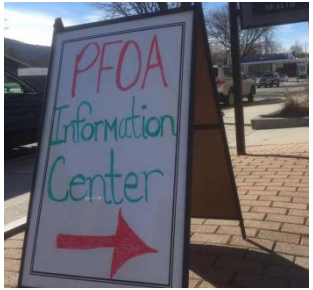
1. What is the problem
2. What is the response
3. What are the outcomes

Emerging Contaminants in the News

Hoosick Falls – NY's Best Tasting Water

Hoosick Falls Public Water Supply

- NYSDEC enacts Emergency Rule 6 NYCRR Part 597 to classify PFOA and PFOS as hazardous substances



- Saint-Gobain Performance Plastics & Honeywell International as responsible parties

November 2014 → February 2016 → March 2016 → April 2016 → Ongoing

- PFOAs detected in drinking water levels ranging from 180 parts per trillion (ppt) to 540 ppt in PWS

- EPA revises Health Advisory Level of PFOA and PFOS to combined total of 70 ppt
- New filtration system installed in public WTP

- Municipal water treatment, monitoring, blood monitoring/cancer screening for residents.

Part 597 Update

- Under 6 NYCRR Part 597, sites contaminated with PFOA and PFOS must be remediated under Part 6 NYCRR Part 375.
  - Adoption of Final Rule: 6 NYCRR Part 597 went into effect March 3, 2017
- NSYDEC has authority under NY Superfund to facilitate cleanups of PFAS-impacted sites.

Stewart Air National Guard Base - Newburgh, New York

- PFOS – Class B firefighting foam used for emergency and training
- December 2013 - October 2014: PWS for Newburgh sampled for PFOA/PFOS
  - Detections ranging from 140 to 170 ppt (below EPA's provisional short-term health advisory level 200 ppt)
- May 2016 - EPA set new lifetime drinking water health advisory level of 70 ppt
- In 2016 - Stewart Airport significant source of PFOS contamination found in Lake Washington
  - PFOS concentration in outfall - 5,900 ppt
  - On-site monitoring wells, max. conc. - 3,160 ppt
  - Surface water sample from retention pond - 790 ppt
- August 2016 - DEC Declares Stewart Air Base a state Superfund Site

Long Island Public Water Supply

Yes – Above EPA Health Advisory Level (0.35 µg/l)

Information not available

No

Yes - Below EPA Health Advisory Level (0.35 µg/l)

This district did not conduct testing

1,4-dioxane identified in 71% of public supply systems in Long Island tested in response to UCMR3, 45% had levels > EPA Health Advisory Level of 0.35 mg/l

Source
Citizenl average Island drinking water supplies at concentrations exceeding the national ave (February 2017)
https://www.citizenscampaign.org/campaigns/dioxane.asp

Where Are We Now?

- EPA has **not** established drinking water regulations for PFOA, PFOS, 1,4-dioxane
- NYSDOH developing response protocol for public water supply systems
- NYSDEC - has not promulgated drinking water standards
  - Currently using EPA Health Advisory levels:
    - PFOA +PFOS – 70 ppt
    - 1,4-dioxane – 350 ppt
    - NYSDOH Unspecified Organic Contaminant standard – 50 ppb

NYS Response to Emerging Contaminants

- **Cuomo's Clean Water Infrastructure Act of 2017**
  - Invest $2.5 billion in water infrastructure across NYS
    - Municipal Drinking Water System Advancements
    - Municipal Waste Water Treatment System Improvements
    - Source Water Protection Actions

- February 2017: Cuomo calls on EPA to set 1,4-dioxane and PFAS MCLs, otherwise state will take lead.

NYS Drinking Water Quality Council

- NYS Drinking Water Quality Council (DWQC)

Howard Zucker, MD, JD**,** Commissioner, NYSDOH
Basil Seggos, Commissioner, NYSDEC

Roger Sokol, PhD, Director, Division of Environmental Health Protection, NYSDOH

Scott J Stoner, MS, Chief, Standards and Water Quality Assessment Section, Division of Water, NYSDEC

Stanley Carey, Massapequa Water District Superintendent

Joseph Graziano, PhD, Columbia University, Environmental Health Sciences and Pharmacology
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Sarah Meyland, JD, Associate Professor, New York Institute of Technology

Paul Granger, PE, Superintendent, Port Washington Water District

Steven Schindler, MS, Director, NYCDEP, Bureau of Water Supply

Kris Dimmick, PE, PWLF, BCA Engineers & Architects

NYS Drinking Water Quality Council

- DWQC goal is to provide recommendations about emerging contaminants
  - Which contaminants should be regulated
  - Maximum Contaminant Levels (MCLs) for regulated contaminants
  - Notification criteria for regulated contaminants
  - Testing time frames and frequencies
  - Public notification, educational materials
  - Community outreach
- Regulatory framework (PFAS, 1,4-dioxane) - Spring 2018
- Drinking water standards - October 2018

NYS Response to Emerging Contaminants

- Water Quality Rapid Response Team (WQRRT)
  - Identify and address drinking water quality issues state-wide
  - Collect data by sampling public & private water supplies around facilities suspected to have used PFAS and 1,4-dioxane
- WQRRT requesting data from water purveyors, operators of private wells, and participants in remediation programs.
  - Data requested from Part 375 remediation program sites
    - Includes sites in investigation, remediation & site management stages
    - Not intended to change remedy unless site is the source of PFAS
    - Testing only requested for Site Management projects if groundwater sampling is a component of SMP.

NEW YORK STATE
DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

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April 4, 2018

[redacted]

Re: Request for sampling of Emerging Contaminants [redacted]

Dear [redacted]

The DEC is undertaking a Statewide evaluation of remediation sites to better understand the risk posed to New Yorkers by 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS). PFAS have historically not been evaluated at remediation sites, and 1,4-dioxane has not been evaluated at the levels that are now thought to represent a health concern. This initiative is being undertaken as a result of these "emerging contaminants" having been found in a number of drinking water supplies in New York. The DEC is requesting that you test the water for these chemicals utilizing existing monitoring wells.

The attached guidance provides information on the analytical methods and reporting requirements. A second guidance document describes special precautions that need to be considered when sampling for PFAS.

Please contact me within 10 business days to discuss the scope of the requested water testing. If you wish to discuss this matter further or have any questions, please contact me at 315.426.7515 or email: Christopher.Mannes@dec.ny.dec.

Sincerely,

Christopher F. Mannes III

Christopher F. Mannes III, P.E.
Environmental Engineer II

Ec: Harry Warner, P.E. NYSDEC; Julia Kenney, NYSDOH; Gianna Aiezza, P.E. Envirospec Eng.

NEW YORK STATE | Department of Environmental Conservation

- Request from DEC for PFAS/1.4-dioxane sampling
  - Includes sampling criteria, protocol and precautions
  - WQRRT initiative to better understand prevalence of PFAS and 1,4-dioxane in NYS water systems

Potential Outcome on Remediation Sites

- In April 2018, PFOS detected in groundwater near the former Damascus Road Landfill in East Quogue, Long Island, NY
  - Evaluated by the WQRRT
  - PFOS - **11,200 ppt**
  - Over 150 times the EPA Health Advisory level (70 ppt)
- PFOS detected in groundwater, not a drinking-water supply for the area
- Response to public outcry
  - Bottled water delivery to 107 residences
  - Free testing of over 100 water private supply wells

Potential Outcome on Investigation Sites

- NYS Brownfield Cleanup Program site in Brooklyn, NY (volunteer)
- Former gasoline station and car wash
- Combined PFOA /PFOS - 190 ng/L
- DEC comment - Scotch-guarding/stain-proofing operations associated with historical car wash may be a source of PFAS

LANGAN

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