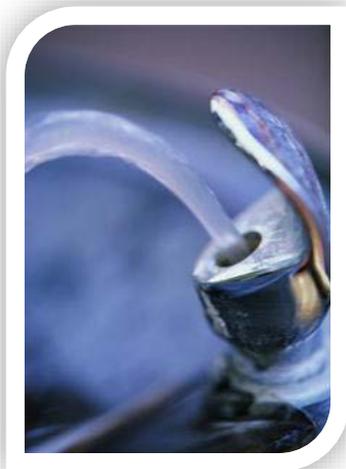


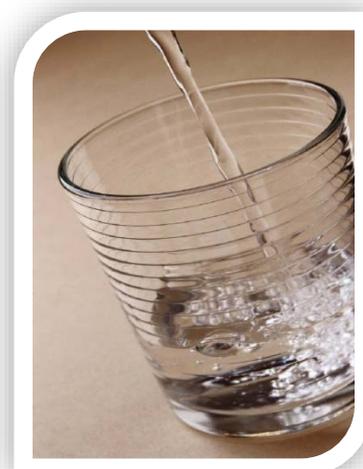


Regulatory & Related Updates

National Drinking Water Advisory Council



November 17, 2015

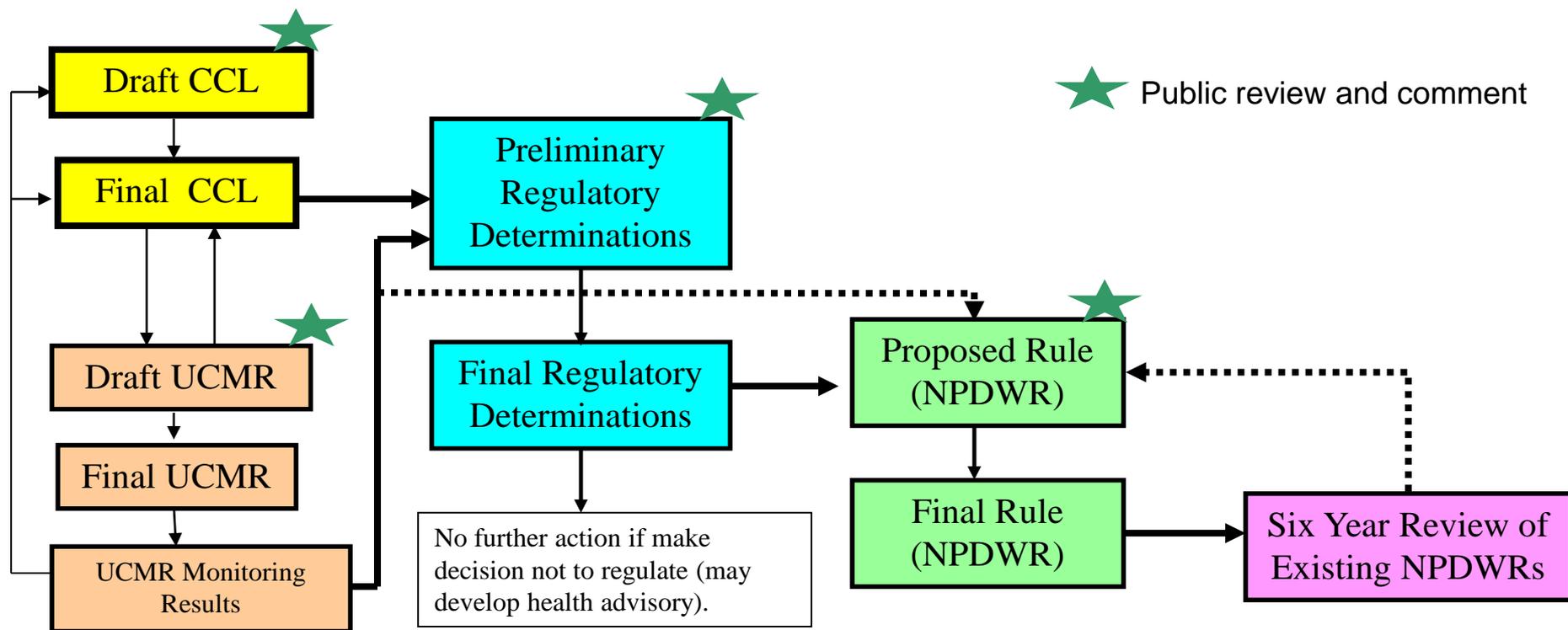




Regulatory Analysis, Rule Development, and Stakeholder Support

- Contaminant Candidate List
- Unregulated Contaminant Monitoring Rule
- Regulatory Determination
- Rule Development/Revision
 - Perchlorate
 - Reduction of Lead
 - cVOCs Group
- Six Year Review of Regulations
- Stakeholder Support/Guidance
 - Cyanotoxins
 - Legionella

General Flow of SDWA Regulatory Processes



At each stage, need increased specificity and confidence in the type of supporting data used (e.g. health, occurrence, treatment).

A small icon of a clipboard with a checklist is positioned to the left of the main title.

Regulatory Analysis: Contaminant Candidate List (CCL)

- **Published draft CCL 4 - Feb 4, 2015**
 - 60-day comment period ended April 6
 - Lists 100 chemicals or chemical groups and 12 microbial contaminants
 - CCL 4 info at- <http://www2.epa.gov/cct/draft-contaminant-candidate-list-4-ccl-4>
- **Next Steps -**
 - Compile, consider, and analyze public comments
 - Revise CCL 4, as appropriate
 - Publish Final CCL in 2016
- **Background –**
 - Published CCL 3 – October 2009
 - Requested public to nominate contaminants for CCL 4 – May 2012



Third Unregulated Contaminant Monitoring Rule (UCMR 3)

- Proposal published March 3, 2011
- Final rule published May 2, 2012
- Monitoring is occurring from 2013-15
- 28 chemicals and 2 viruses
- Contaminants include hormones, perfluorinated compounds (e.g., PFOS/PFOA), VOCs, metals (including Cr⁺⁶ and total Cr), 1,4-dioxane, chlorate and pathogens
- Data are posted to the National Contaminant Occurrence Database (NCOD)
(water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/data.cfm)
- Will complete monitoring in 2015 and data reporting in 2016



UCMR 3 – Contaminants

- Pharmaceuticals (EPA Method 539)
 - 17- α -ethynylestradiol
 - 17- β -estradiol
 - equilin
 - estriol
 - estrone
 - testosterone
 - 4-androstene-3,17-dione
- Metals (EPA Method 200.8)
 - cobalt
 - molybdenum
 - strontium
 - vanadium
 - (total) chromium
- EPA Method 218.7
 - hexavalent chromium
- Volatile Organic Compounds (EPA Method 524.3)
 - 1,1-dichloroethane
 - 1,2,3-trichloropropane
 - 1,3-butadiene
 - bromochloromethane
 - chlorodifluoromethane
 - chloromethane
 - methyl bromide
- EPA Method 522
 - 1,4-dioxane
- EPA Method 300.1
 - chlorate



UCMR 3 – Contaminants (cont.)

- Microbials
 - 2 viruses
 - enterovirus (qPCR & cell culture)
 - norovirus (qPCR)
 - “Indicator organisms”
 - Total coliform
 - *E. coli*
 - enterococci
 - coliphage
 - aerobic spores
- Perfluorinated Chemicals (EPA Method 537)
 - Perfluorooctane sulfonate (PFOS)
 - Perfluorooctanoic acid (PFOA)
 - Perfluoroheptanoic acid (PFHpA)
 - Perfluorononanoic acid (PFNA)
 - Perfluorobutane sulfonic acid (PFBS)
 - Perfluorohexane sulfonic acid (PFHxS)



Future Plans for UCMR -- UCMR 4

1. Develop and publish the proposed UCMR 4 Rule in late 2015.
2. Hold a UCMR 4 stakeholder webinar during the public comment period.
3. Develop and publish the final UCMR 4 Rule by January 2017.
4. Anticipated monitoring period Jan 2018 thru Dec 2020.

Regulatory Analysis: Regulatory Determinations

SDWA requires EPA to make regulatory determinations for at least 5 CCL contaminants every 5 years. EPA must regulate if:

- 1) *The contaminant may have an adverse effect on the health of persons;*
- 2) *The contaminant is known to occur or there is substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and*
- 3) *In the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems*





Status and Next Steps for Regulatory Determinations 3 (RD 3)

- On October 20, 2014, published the preliminary RD 3 FR notice for public comment.
 - The FR notice contained the following preliminary determinations:
 - 4 negatives: 1,3-Dinitrobenzene, Dimethoate, Terbufos, and Terbufos Sulfone
 - 1 positive: Strontium
- On December 9, 2014, held a public meeting/webinar to solicit input on:
 - The process to identify, and the information used to evaluate CCL 3 contaminants to make preliminary determinations; and
 - The 5 preliminary determinations
- Public comment period closed on December 19, 2014.
- Expect to publish the final RD 3 in early 2016.



Rule Development: Perchlorate

- Developing a proposed perchlorate standard
 - Evaluating available data on perchlorate occurrence
 - Evaluating the feasibility of treatment technologies to remove perchlorate
 - Examining the costs and benefits of potential standards
- Following up on SAB recommendations (made in May 2013) for methodologies to derive a MCLG
 - Expect to develop a perchlorate MCLG using Physiologically Based Pharmacokinetic (PBPK) modeling
 - Working with FDA scientists to develop a PBPK model consistent with SAB recommendations to derive a perchlorate MCLG



2011 Reduction of Lead in Drinking Water Act

- The RLDWA was enacted on January 4, 2011 to amend Section 1417 of the SDWA respecting the use and introduction into commerce of lead pipes, plumbing fittings or fixtures, solder and flux.
- The effective date was January 4, 2014.
- In 2013, EPA published a summary of the RLDWA requirements and some answers to frequently asked questions related to the amendments to assist manufacturers, retailers, plumbers and consumers in understanding the changes to the law (<http://water.epa.gov/drink/info/lead/upload/epa815s13003.pdf>)
- EPA initiated an action to codify the lead free requirements in the RLDWA.
- EPA plans to propose regulations in mid-2016



Rule Development:

Carcinogenic Volatile Organic Compounds (cVOCs) Group

EPA is developing a proposed group cVOC standard

- Considering regulated (tetrachloroethylene (PCE), trichloroethylene (TCE), and others) and unregulated carcinogenic VOCs (cVOCs)
- Occurrence data are being collected for 3 unregulated cVOCs currently under UCMR 3, which concludes in Dec 2015. Plan to wait until UCMR 3 monitoring is complete to proceed with rule development to consider new occurrence data.
- Presented approaches for a group MCL construct to the NDWAC in fall 2014.
- Examining the feasibility of analytical methods and treatment technologies.
- Any revision for currently regulated cVOCs will improve or maintain health protection



Regulatory Analysis: Six Year Review

- EPA must review existing National Primary Drinking Water Regulations (NPDWRs) every six years and, if appropriate, revise

Background

- Completed the **1st** Six Year Review of 69 NPDWRs (2003); made decision to revise TCR
- Completed the **2nd** Six Year Review of 71 NPDWRs (2010) and identified PCE, TCE, acrylamide and epichlorohydrin as candidates for revision

– Status

- Will complete the **3rd** Six Year Review in 2016 - this will be the first time a Six Year Review addresses the microbial and disinfection byproduct regulations



Stakeholder Support: Cyanotoxins

- Public meeting/webinar: May 11, 2015
 - Purpose: To obtain additional information the Agency can provide to states and public water systems to help them prepare for and respond to potential cyanotoxin health concerns in drinking water
 - Approximately 500 attendees (online and in person)
- June 17, 2015 EPA publications:
 - Health Advisories
 - Microcystins
 - Cylindrospermopsin
 - Health Effects Support Documents
 - Microcystins
 - Cylindrospermopsin
 - Anatoxin-a



Stakeholder Support: Cyanotoxins (cont.)

- On June 17, EPA also published a supporting document to assist in managing risks from cyanotoxins: *Recommendations for Public Water Systems to Manage Cyanotoxins in Drinking Water*
 - Purpose:
 - To provide information to public water systems (PWSs), state and local authorities, and other stakeholders to assist with the management of cyanotoxins that occur in drinking water
 - To encourage PWSs and primacy agencies to coordinate and prepare for harmful algal blooms, and develop a response focusing on communication, monitoring, and treatment
 - The document serves as a companion to the EPA Health Advisories (HA) for microcystins and cylindrospermopsin.



Stakeholder Support: Cyanotoxins (cont.)

- On August 7, 2015, P.L. 114-45 was signed into law, amending the Safe Drinking Water Act by adding Section 1459 for Algal Toxin Risk Assessment and Management
- Section 1459 directs the EPA to submit to Congress a strategic plan for assessing and managing risks associated with algal toxins in drinking water provided by public water systems
- EPA solicited stakeholder input on September 16, 2015 which has been very helpful in developing the plan
- EPA is currently developing the strategic plan and intends to submit it to Congress in November 2015



Stakeholder Support: Legionella Treatment Technology Document

- Purpose:
 - To characterize the effectiveness of treatment technologies to control for Legionella based on findings from peer reviewed literature
- Audience:
 - States and primacy agencies, affected facilities and system operators
- Authors:
 - A multi-agency taskforce has been participating in the data compilation
 - EPA, CDC, ASDWA, state primacy agencies



Next Steps in Development of the Legionella Treatment Technology Document

- Publish draft document – October 21, 2015
- Public meeting/webinar – November 9, 2015
- Independent external peer review – late 2015/early 2016
- Publish final document – 2016