



Safe Drinking Water Act (SDWA): Updates and Current Activities

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Overview

- Alternative Test Procedure (ATP) and Expedited Method Approval / DW MUR
 - Radiochemistry Analytical Methods
 - Regional and State Engagement
 - EPA Interoffice Activities
 - UCMR 5 Stakeholder Meeting and Webinar
 - Laboratory Stakeholder Collaboration
- Future Opportunities**



Safe Drinking Water Act (SDWA)

- SDWA defines three criteria for regulation of a contaminant in drinking water:
 - Adverse health effect
 - Occurrence
 - Regulation provides a meaningful opportunity for health risk reduction
- Primary Drinking Water Regulation for each contaminant specifies either a maximum contaminant level (MCL) or treatment technique



Safe Drinking Water Act (SDWA)

- Compliance with MCLs requires EPA to specify “accepted methods for quality control and testing procedures” with each Primary Drinking Water Regulation
 - With each MCL that is established, at least one analytical test method must be available and promulgated with the regulation
- SDWA also allows addition of “equally effective quality control and testing procedures” after promulgation of a regulation by publication of a *Federal Register* notice.



Drinking Water Alternate Test Procedure (ATP) Program

- ATP program does not have authority to approve alternate testing procedures
- ATP program evaluates modified or new testing methods (alternative testing procedures)
- Drinking Water methods must undergo sufficient validation to support their use at the national level (multi-lab/multi-DW matrices)
 - Single laboratory approvals are not allowed
 - Regional approvals are not allowed



Drinking Water Alternate Test Procedure (ATP) Program

- Validation study compares performance of modified or new method with performance of approved method
 - Must be able to demonstrate the modified or new method is “equally effective” relative to the approved method
- Method approval can take two paths:
 - Expedited method approval
 - Promulgation through notice-and-comment rulemaking



Expedited Method Approval Process

Remember SDWA allows addition of “equally effective” methods through publication of a FR notice after promulgation of approved methods?

The Expedited Method Approval Process was proposed in April, 2007 (72 FR 17902) and the first action published June 3, 2008 (73 FR 31616).



Expedited Method Approval Process (cont.)

- Used to approve alternative test methods that are “equally effective” relative to method(s) cited in the regulations
- Approval decision is published in a *Federal Register* notice
- Methods are treated the same as those approved through the rulemaking process:
 - Data are acceptable for compliance monitoring & reporting
 - State adoption of alternative test methods is optional; however, if these methods are used, laboratory certification requirements extend to the use of methods approved through the expedited process



Expedited Method Approval Process (cont.)

- Non-regulatory process means:
 - Time required for approval is shortened
 - Notice-and-comment rulemaking takes on average 2-3 years
 - Expedited method approval process allows alternative test methods to be available through preparation and publication of a FR notice within as little as 6-8 months
 - Methods are listed in the CFR
 - Not included in the regulation tables
 - Established Appendix A to Subpart C of Part 141 to list the methods approved through the expedited process



Expedited Method Approval Process (cont.)

- Method approvals include:
 - Methods evaluated through the drinking water ATP program
 - Voluntary Consensus Standard Body methods (Standard Methods and ASTM)
 - New or revised EPA methods
- Frequency of approvals
 - Anticipate publishing FR notices approximately on an annual basis



Expedited Method Approvals

- *Federal Register* notices published since June 3, 2008 (73 FR 31616):
 - 74 FR 38348 (August 3, 2009)
 - 74 FR 57908 (November 10, 2009)
 - 75 FR 32295 (June 8, 2010)
 - 76 FR 37014 (June 24, 2011)
 - 77 FR 38523 (June 28, 2012)
 - 78 FR 32558 (May 13, 2013)
 - 79 FR 35081 (June 19, 2014)
 - 81 FR 46839 (July 19, 2016)
 - 82 FR 34861 (July 27, 2017)
 - 83 FR 51636 (October 12, 2018)



ATP and Expedited Method Approval Resources

- Drinking water ATP web page:
<https://www.epa.gov/dwanalyticalmethods/drinking-water-alternate-test-procedure-program>
- Expedited methods approval web page:
<https://www.epa.gov/dwanalyticalmethods/expedited-drinking-water-analytical-method-approval-requirements>.

To find specific methods:

- Public docket associated with each FR notice (except copyright protected VCSB methods)
- Drinking water methods web page:
<https://www.epa.gov/dwanalyticalmethods/approved-drinking-water-analytical-methods>.



Notice and Comment Rulemaking

A Drinking Water Method Update Rule (MUR)

- Proposed Drinking Water MUR is coming
 - Compiled comprehensive list for possible action
 - Plotting out migrating prior Expedited Methods (from Appendix A to Subpart C of Part 141) to referenced regulatory sections
 - Initiating ADP process (analytical blueprint, tiering, formulate work group, options selection, etc...)
 - Anticipate significant stakeholder engagement.



Radiochemistry Method Collaborative Efforts

- *AWWA et al.* expressed concerns about EPA radiochemical methods used for DW compliance
 - Methods have not been updated in over 30 years
 - Minimal QC (if any)
 - Inherent deficiencies (e.g., no pH check specified for a pH-dependent step)
- Revisions requested for
 - EPA Method 900.0 (Gross alpha and beta)
EPA Method 900.0, Rev 1.0, Feb 2018
 - EPA Method 903.0 (Alpha-emitting radium isotopes)
 - EPA Method 903.1 (Ra-226 by radon emanation)
 - EPA Method 904.0 (Ra-228)



Radiochemistry Methods Collaborative Efforts

- Standard Methods/ASTM International
 - Newer Techniques
 - Communication with Drinking Water ATP program
 - Multi-laboratory validation



Regional/State Collaborative Efforts

- ASDWA Webinar series on Treatment Optimization to reduce DBPs – spring 2019
- Regional Work Group on Drinking Water Certification Officer Training – report to RS&T Directors (Sept 2018)
 - Prerequisite training qualifications
 - Nominated student review
 - Revising materials – more streamlined and focused
 - Supplemental technical training and shadowing opportunities
 - Continue to investigate on-line training options



Inter-Office Collaborative Efforts

- Office of Science & Technology Part 136 Method Update Rules
 - Participate in MUR Workgroups
- EPA 900-series radiochemistry method revisions
 - Add non-drinking water provisions (e.g. detection limits) so methods apply to other programs
- PFAS collaboration across EPA



Stakeholder Meeting/Webinar on Future UCMR 5 Pre-Proposal Engagement July 16, 2019

- Open forum on development of the fifth proposed UCMR (UCMR 5)
- Presented potential approaches and considerations:
 - Impact of the America's Water Infrastructure Act of 2018 (AWIA);
 - Analytical methods and contaminants the Agency is considering (including PFAS);
 - potential sampling design and other modest changes



Laboratory Stakeholder Collaboration

- Analytical methods support
 - Multi-laboratory method validation
 - E.g., EPA Method 533 (short chain PFAS)
 - Method 533 multi-lab validation currently taking place
 - Assist with Development of robust method MRLs
 - EPA seeks single-lab LCMRL data to support proposed MRLs
- Benefits:
- Gain early skills preparing for future UCMR lab approval program
 - Acknowledgment in future UCMR cycle lab approval manual
 - CONTACT: Brenda Bowden (nee Parris – bowden.Brenda@epa.gov), UCMR Rule Manager



America's Water Infrastructure Act of 2018 (AWIA)

- **Section 2021 - MONITORING FOR UNREGULATED CONTAMINANTS**
 - Creates new UCMR requirements, ***subject to the availability of appropriations and contingent on sufficient laboratory capacity.***
 - Requires that all drinking water systems serving between 3,300 and 10,000 persons monitor for unregulated contaminants (in addition to those serving >10,000).
 - Original SDWA provisions called for monitoring at all systems serving >10,000 and only a representative set of systems serving $\leq 10,000$.
 - **Authorizes (but does not appropriate) funds** for each fiscal year in which monitoring is required to be carried out. Funds used for small-system sample analysis costs.
 - AWIA provisions apply to UCMR 5 and cycles thereafter.



Future Opportunities

AWIA BOTTOM LINE relative to UCMR 5 and beyond:

- More than 7 times the number of small PWSs than in prior UCMR cycles, monitored by EPA utilizing contract labs. ~5800 small PWS vs 800 small PWS
- EPA establishes multiple award laboratory contracts for this support with a guaranteed minimum.
- Labs need to be approved in all methods to cover complete analyte list.
- EPA will need at least 6, possibly 10 contract labs for UCMR5.
- **Interested?**
 - Register your lab immediately after we propose UCMR5 (anticipated summer to late 2020),
 - Submit complete applications as soon as you can,
 - Get into the first PT study offered by EPA,
 - Earn status early as an “EPA approved” UCMR5 lab.

DISCLAIMER NOTE: AWIA authorizes (but does not *appropriate*) funds



Summary

- Expedited method approval shortens time between evaluation and approval of optional, alternative drinking water methods
 - Provides laboratories with access to newer technology sooner
- OGWDW seeks to work collaboratively with stakeholders, states, regions and other agency offices to continue to improve environmental monitoring programs



Questions?