



Overview

CWA Methods Update Rule

Method 608.3

August 2017 • Adrian Hanley, U.S. EPA

Methods Update Rule (MUR)



- CWA MUR every 3-5 years
- Previous CWA MUR finalized in 2012
- Current CWA MUR
 - Proposed February 19, 2015
 - 175 sets of comments received
 - OMB Found the rule not significant under Executive Order 12866 on April 13, 2016
 - Originally signed on December 15, 2016
 - Withdrawn from the FR, being reconsidered



Action Development Process for the MUR



- Rule proposed and comments received
- Respond to comments
 - Modifications for final rule may occur
- Internal Review of Final Rule
 - Multi-office EPA workgroup including Office of General Counsel and Office of Policy
- Rule finalized, signed by Administrator
- Becomes effective upon publication



Important Note: When finalizing a rule, items from the proposed rule are generally accepted, rejected, or modified. New items outside of the scope of the proposed rule are generally not added to the final rule.

Methods 608.3, 624.1, and 625.1



Pesticides and PCBs, volatile and semivolatile organic compounds

Revision – made limited changes:

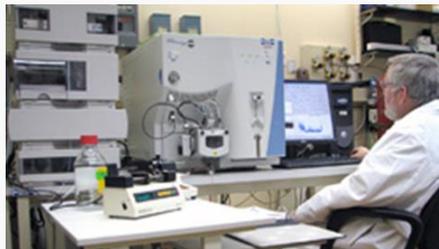
- Updated technology
 - Capillary columns, updated references
- Method Flexibility
 - Allows more changes with internal documentation (no ATP required)
 - Follow 40 CFR Part 136.6
- Method Harmonization
 - Enhances consistency among EPA method programs: drinking water, solid-waste, superfund



Method 608 to 608.3



- Underwent 2 rounds of review before proposal
 - EPA Regions then select reviewers
- Proposed Rule in 2015
 - Received 210 pages of tabulated comments
 - Resulted in many minor revisions
- Current Version of 608.3
 - Pre-publication available at:
<https://www.epa.gov/cwa-methods/methods-update-rule-2016>



Disclaimer



The following slides are only a summary of the changes made from Method 608 to Method 608.3. The slides do not contain every single change, just the changes that this presenter believes are most significant.

Additional Analytes



Table 2: Additional Analytes

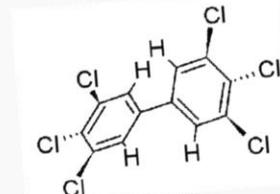
- New analytes not approved under 40 CFR part 136
 - Intended for analytes of interest (see 1.4)
 - Cost savings for dischargers
 - Initial Demonstration of Capability required
 - Default MS/MSD recovery of 60-140% and RPD of 30%, unless tighter in house criteria are available (see 8.1.2.1.2)
- Aroclors and Toxaphene
 - Moved to Table 2
 - Not required for QC tests (see 1.5)



Calibration



- Recommend 5 standards for single component analytes (minimum of 3 standards)
- Calibration curve can be used
 - Consistent with 40 CFR part 136.6
 - 6 standards are required for curve fits and relative standard error calculations
- Aroclors
 - Minimum of 3 standards containing both Aroclor 1016 and 1260
 - Single midpoint standards of the other 5 Aroclors
- Toxaphene
 - Minimum of 3 standards



QC Changes



- Can repeat failed QC tests for failed analytes
 - Only when many analytes are analyzed, and 80% of the analytes pass
 - No maintenance or adjustments in between
- Calibration Verification Standards (see 6.8.4)
 - Prepared using standards obtained from a second source

Note: Second source standards are optional for MS/MSD and LCS samples (see 6.8.3)

QC Changes (cont.)



- Surrogates are required
 - Examples: dibutyl chlorendate (DBC), tetrachloro-m-xylene (TCMX), 4,4'-dibromobiphenyl, or decachlorobiphenyl
 - Alternative surrogates and concentrations allowed
- Blanks are reported to the MDL
- GC resolution criteria added (see 13.4)
 - Valley height 40% of the shorter peak
- DDT and Endrin decomposition criteria added
 - Breakdown <20% (see 13.5)



Extraction/Cleanup



- Additional procedures for continuous liquid-liquid extraction (CLLE) and disk based solid phase extraction (SPE)
 - CLLE is essentially an automated liquid-liquid extraction, which is allowed under 40 CFR part 136.6
 - Disk based SPE is based on an approved alternate test procedure
 - (60 FR 39585, August 2, 1995)
- More cleanup procedures are provided
 - Always have been allowed under method flexibility
 - Contained within “Solutions to Analytical Chemistry Problems with Clean Water Act Methods”

New Allowed Modifications



- New materials can be vendor certified by one laboratory (see 8.1.2.1.1)
 - Most relevant to solid phase extraction
 - Requires an Initial Demonstration of Capability
 - Requires testing in specified 9 matrix types (see 8.1.2.1.2)
 - Must meet Table 4 MS/MSD criteria
 - Default criteria if no Table 4 data available
 - 60 to 140% recovery and 30% RPD
 - Full data packages must be made available, and kept by the laboratories using the new materials (see 8.1.2.2)

Common Comments



- Remove 5% MS/MSD frequency requirement for each discharge site
 - Not a significant change, 608 requires 10% frequency
 - Reviewed and approved by the Science Advisory Board during original promulgation in 1984
- Proposed MDLs are invalid
 - MDL were changed back to original values
- Do not reference unapproved methods
 - Only referenced in the context of analytical trouble shooting

Common Comments (cont.)



- Require 5 calibration standards
- Change “Fill in the blank” criteria
 - Need a multi-lab validation
 - Criteria were taken from a different EPA method program, so it is fostering method harmonization
- EPA should not allow reporting to the MDL
 - That is the decision of the permitting authority





For more information or additional feedback, please contact:



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