Update on CWA and SDWA Activities

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Catalyst Information Resources

AGENDA

- Clean Water Act Activities
  - 2025 Method Update Rule
  - Anticipated Changes
  - Other PFAS Activities
- Safe Drinking Water Act Activities
  - Brief Summary of the 2024 PFAS Final Rule
  - Possible Changes
  - NPDWR for Perchorate
  - New Methods
  - New Analytes

From August 8, 2024 through July 31, 2025

2025 Proposed MUR

- Published January 21, 2025
- Three new EPA Methods (1621, 1628, 1633)
- Aroclors removed as analytes and replaced with PCB congeners
- New ASTM and Standard Methods
- Addition of hydrogen peroxide, peracetic acids, adsorbable organic fluorine, and PFAS as new analytes
- Removal of Method 1664 A and colorimetric methods for metals
- Changes to sample preservation and holding times
- Other “Technical Corrections”

Detailed Analysis of the Proposed MUR

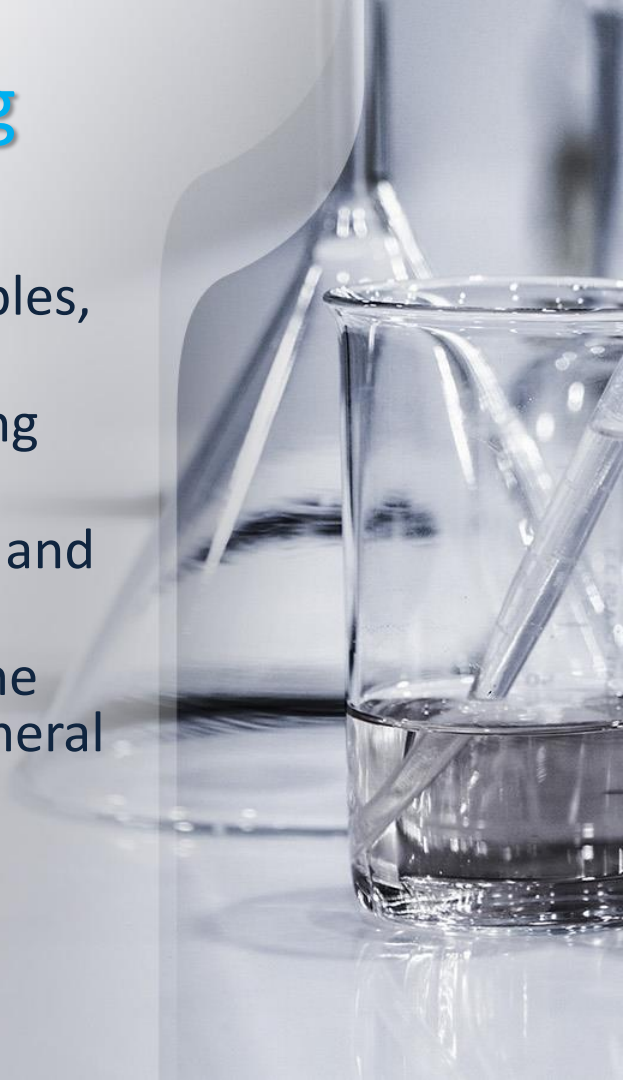
This is a summary of a 3-hour webinar given in March 2025.

AGENDA

- Renumbering of Tables in 136.3
- Changes to Table Ib – Inorganic Methods
- Changes to Table Ic – Organic Methods
- New Table Ii – PCB Congeners
- New Table Ij - PFAS
- Changes to Table II - Sample Preservation and Holding Times

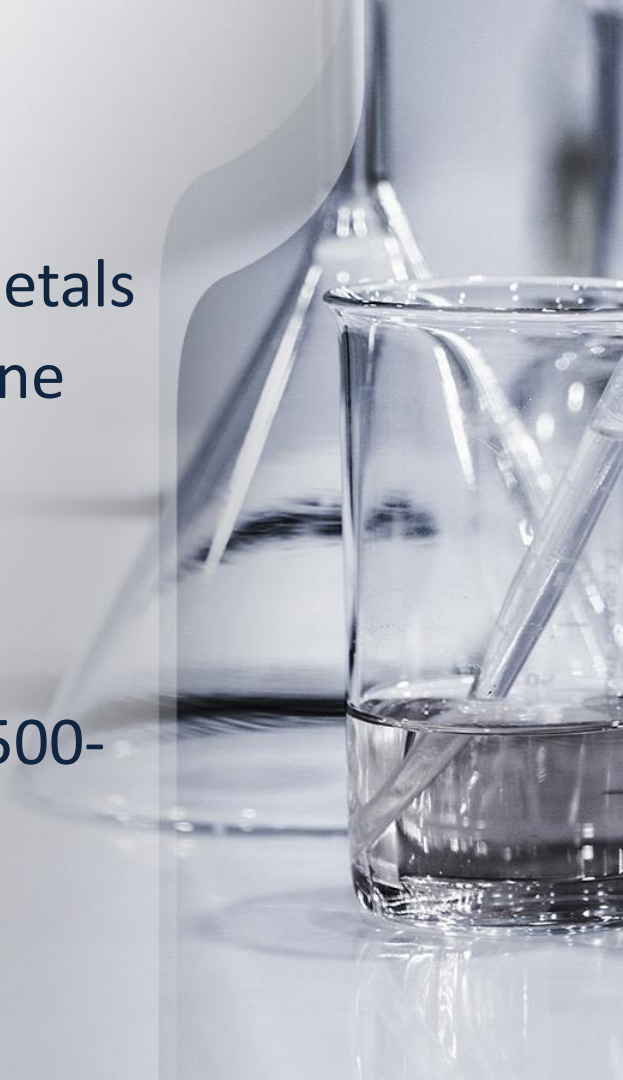
Changes to Table Table Numbering

- Tables had been numbered Roman Numeral followed by Capital Letter for the method tables, e.g., Table IB
- Table II is the sample preservation and holding times table.
- This Format worked until EPA added tables II and IJ
- To avoid confusion with Roman numeral II, the tables have been renumbered to Roman numeral small alphabet – Ia, Ib, Ic, …



Changes to Table Ib

- Removal of colorimetric methods for metals
- Removal of SM 4500 Cl E for free chlorine
- Removal of ASTM D6508, anions
- Removal of 1664A
- New ASTM Method D7511
- New SM 4500-CN-P, 4500 H2O2, and 4500-PAA
- Changes to footnotes

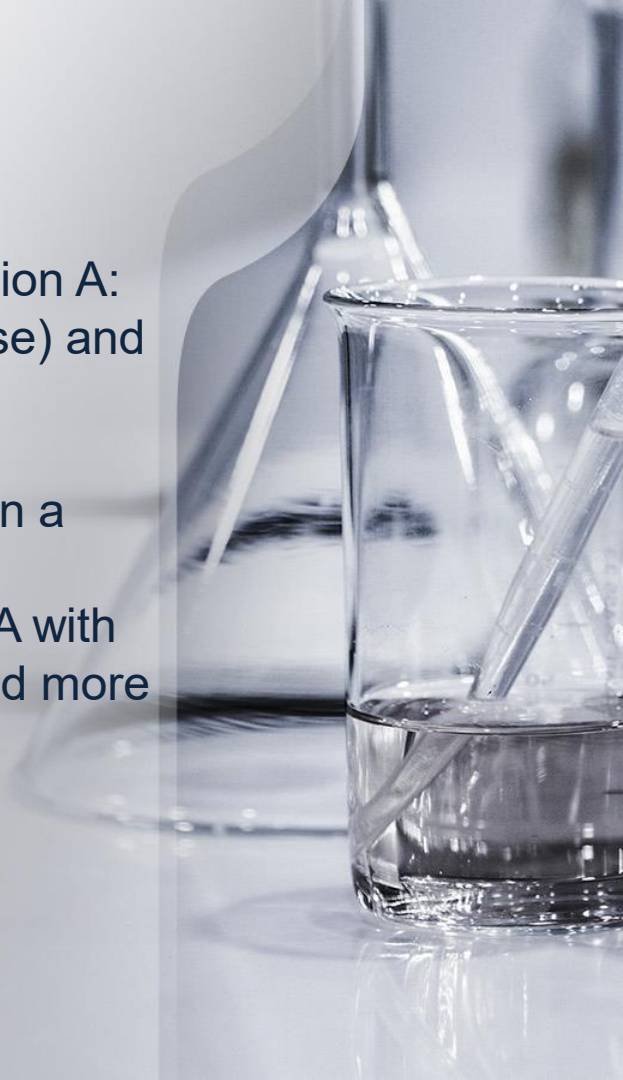


Removal of Colorimetric Methods

EPA proposes to withdraw single-metal colorimetric methods that measure a total metal concentration from Table Ib. There are multiple ICP and graphite furnace methods that are more sensitive and provide more accurate results in challenging matrices that are already listed in Table Ib. These ICP methods are also relatively inexpensive and easily automated, particularly when analyzing for one parameter. The suggestion to withdraw these methods initially came from TNI. TNI is unaware of any laboratory that is currently accredited for these outdated colorimetric methods.

Removal of 1664A

- EPA proposed to withdraw EPA Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil and Grease) and Silica Gel Treated N-Hexane Extractable Material (SGTHEM; Non-polar Material) by Extraction and Gravimetry. 1664 Rev. B was approved by the EPA in a 2012 rulemaking. That rule strongly recommended laboratories and permitting authorities replace Rev. A with Rev. B. Laboratories and regulatory entities have had more than 12 years to make this adjustment.
- A TNI LAMS search indicated 200 laboratories are accredited for this method.
- 114 laboratories accredited to 1664B



1664A vs 1664 B

- The technique is virtually identical.
  - Slight difference in drying step.
- The QC is identical.
- Additional information for clarity and “hints,” e.g., “Best results are achieved…”
- New NOTE to 9.2.3 on validation of method modifications requiring up to 9 different matrices

1664A vs 1664 B

1664A

- Any modification, beyond those expressly permitted, shall be considered a major modification…

1664B

- Allowable modifications
  - Alternate extraction, e.g., SPE
  - Alternate drying
  - Smaller sample
  - Many more
- Not allowable
  - Different solvent
  - Alternate determination, e.g., IR

1664B NOTES

NOTE: The use of a polar solvent to condition an SPE device in a modified method prior to sample filtration is allowed. The use of methanol to remove water residual may be allowed provided the solvent is immediately discarded to waste and the SPE device is sufficiently air-dried with vacuum to remove any residual solvent to trace amounts so at no time will residual solvent introduce the target analyte into the sample, collocate with or be collected with the extraction solvent, n-hexane. A simple test to determine sufficient solvent removal would be to weigh and record the weight of a dry SPE filter to the nearest 0.1 mg. Then analyze a blank using the dry SPE filter, conditioning the SPE filter and filtering the blank sample per the modified method. Immediately after discarding the polar solvent to waste, stop the vacuum, remove the SPE filter and weigh the wet SPE filter saturated with residual polar solvent to the nearest 0.1 mg. Record this wet SPE filter weight. Reassemble the wet SPE filter and continue vacuum air drying the SPE filter until the weight of the wet SPE filter is less than 101% of the dry SPE filter weight. This simple test could be used by the laboratory…

CATC

- **Cyanide Amenable to Chlorination**
- Chlorine reacts with most cyanide species and destroys them
  - Iron and cobalt cyanides are the exception
- So, one way to measure CATC is to measure total CN in one aliquot and total CN in another that has been exposed to chloringe and subtract the difference
- Some interferences present in samples can create cyanide and thus yield a negative number

CN Methods

- SM 4500-G and P and ASTM D-2036 and D-7511 are total CN methods
- SM 4500 CN-Q and ASTM D-6888 measure available CN
- EPA proposed to add SM 4500- P and ASTM D-7511
- SM 4500 CN-Q and ASTM D-6888 (also OAI 1677) are the preferred methods

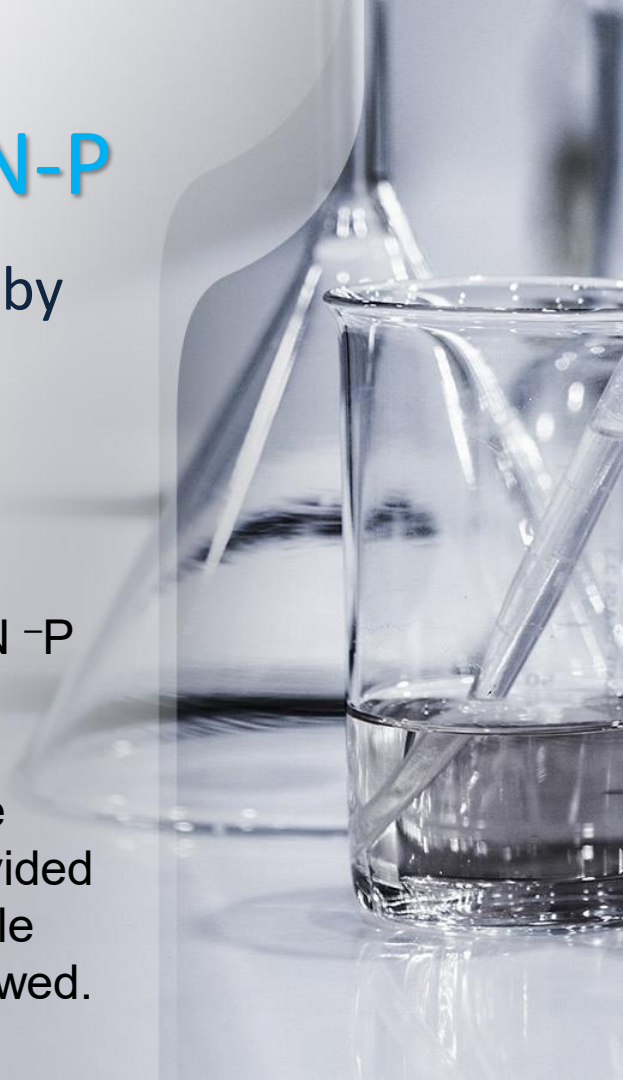
CATC

Parameter	Methodology[53]	EPA[48]	Standard Methods[78]	ASTM
24. Cyanide, Available mg/L	Cyanide Amenable to Chlorination (CATC); Manual distillation with $MgCl_2$ followed by titrimetric or spectrophotometric		4500-CN G-2021	D2036-09(15) (B)
	Cyanide Amenable to Chlorination (CATC) by difference; Segmented In-line gas diffusion Ultraviolet Digestion, followed by amperometry[5981]		4500-CN^- P-2021	D7511-12(17)
	Flow injection and ligand exchange, followed by gas diffusion amperometry[54]		4500-CN^- Q-2021	D6888-16
	Automated Distillation and Colorimetry (no UV digestion)			

ASTM D-7511 and SM 4500-CN-P

- Cyanide Amenable to Chlorination (CATC), by difference
- Segmented In-line gas diffusion Ultraviolet Digestion, followed by amperometry

EPA proposes to amend parameter 24 by adding 4500-CN $^{-}$P and D7511 to allow use of any method approved for measurement of Total Cyanide in both the untreated and treated fractions of a sample for determination of available cyanide by cyanide amenable to chlorination (CATC), provided the treatment steps in the two currently approved amenable cyanide methods, 4500-CN G and ASTM D2036, are followed.



Comments from the Developer

- This makes no sense. If you have the instrument for the methods, you can do the WAD methods which were developed specifically to overcome the CATC interferences in samples. When you do a CATC you can get highly negative results because the chlorination step creates cyanide in the sample.
- SM 4500-P-2021 is a total CN method that does not include steps for CATC.
- ASTM D2036 B measures CATC by difference and is subject to interferences.

SM 4500-PAA

- Peracetic Acid
- Alternate disinfection to Cl2
- Colorimetric procedure (DPD) after reaction with iodide.
- Analyze immediately
- MDL = 90 ug/L

SM 4500-H2O2

- Hydrogen Peroxide
- Use in advanced wastewater treatment to break down organic compounds and reduce odors
- Colorimetric procedure based on reaction with ferrous iron thiocyanate
- Analyze immediately
- MDL = 60 ug/L

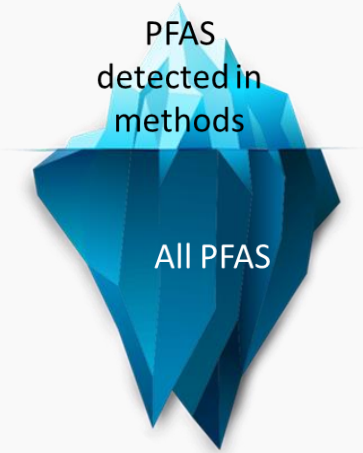
Changes to Table 1C

- New Analyte and Method
  - 114. Adsorbable Organic Fluorine (AOF)
  - Method 1621
- Removed Footnote 8 (3M Empore Disc) as it belongs in Table Id
- New Footnote 17

17. Method 1621, Determination of Adsorbable Organic Fluorine (AOF) in Aqueous Matrices Combustion Ion Chromatography (CIC), January 2024. https://www.epa.gov/cwa-methods

Method 1621 Adsorbable Organic Fluorine

- Thousands of PFAS chemicals exist in the environment
  - Does not detect naturally occurring inorganic fluorine
- Naturally occurring organofluorines are very rare
- Most organic fluorine is man made
  - PFAS, fluorinated pesticides, some pharmaceuticals
- EPA Method 1621 yields a single part-per-billion aggregate concentration of all organofluorine compounds in a sample



A Novel Approach to Total Organic Fluorine Analyis Using CIC, Jay Gandhi, Metrohm, EMS 2023

Changes to Table Id

- Addition of Method 625.1 as an approved method for ethyl parathion

New Table Ii

- PCB congeners by Method 1628
- Lists 210 specific compounds, e.g., 119. 2,3',4,4',6-Pentachlorobiphenyl , or PCB-119.
- Total PCBs calculated by summing all results.
- Weathered Aroclors have different patterns and will often create a false non-detect
  - Non-aroclor PCB contamination is not detected
  - Non-targeted Aroclors are likely not detected
  - If more than one Aroclor is present, results may be reported as a non-detect because no pattern may be apparent

A New EPA 1600-Series Method for PCB Congeners by Low-Resolution GC-MS, Adrian Hanley, USEPA, EMS 2021

New Table Ij

- 40 Specific PFAS
- EPA Method 1633 or ASTM Method D8421 (LC-MS/MS)
- Report using analyte abbreviation; i.e., PFOA and not perfluorobutanoic acid.

PFAS are Everywhere and Now We Have a Validated Multi-matrix Method 1633 to Find Them, Adrian Hanley, EMS 2024

New Table Ij

- 30 PFAS
- 2 New Methods
  - EPA 1633
  - ASTM D-8421

ASTM D8421

- LC-MS/MS
- 44 PFAS (only 40 proposed)
- Applicable to aqueous matrices only, but includes leachates and capable in matrices with very high TSS (no need to check TSS)
- Quantitation by external standard with surrogates monitored
- Robust quick definitive method with minimal sample preparation
- Validated using 11 matrices and 8 labs
- Accuracy of 70 – 130 % or better for surrogates and matrix spikes
- RLs generally 10 ng/L (Aqueous)

A New Method for the Analysis of PFAS in Non-Potable Water, Larry Zintek, USEPA Region 5, EMS 2021

Changes to Table II

- Added sodium thiosulfate preservative for ammonia and phenols.
- Added H2O2 and PAA.
- Revised sample preservation and holding times for acrolein and acrylonitrile.
- Revised requirements for dioxins and furans.
- Added AOF.
- Added PCB congeners and removed PCBs and then renumbered all parameters after PCBs.
- Added PFAS.
- Added PP, polypropylene, to footnote 1.
- Added footnote 9 to 2,3,7,8-TCDD
- Revised footnotes 5, 10, and 17 and added footnotes 25-29.

Sodium Thiosulfate

EPA proposed to add sodium thiosulfate to the preservation column for Ammonia and apply Footnote 5 to that entry to address the fact that residual chlorine in samples will react with ammonia to form chloramines, which are an interference with ammonia analyses.

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5 ASTM D7365–09a (15) specifies treatment options for samples containing oxidants (e.g., chlorine). Also, Section 9060A of *Standard Methods for the Examination of Water and Wastewater* (23rd edition) addresses dechlorination procedures for microbiological analyses. Section A.2 of Standard Method 4500-NH3 discusses the need for dechlorination of samples for ammonia analysis. Addition of sodium thiosulfate to samples for other parameters is only necessary when oxidants are present (e.g., chlorine).

Sodium Thiosulfate

EPA proposed to specify that sodium thiosulfate is to be added to samples to remove oxidants (e.g., chlorine) for Phenols and Alkylated phenols. EPA also proposes to restore footnote 5 for Phenols, and to add Footnote 5 for Adsorbable Organic Halides and Chlorinated Phenolics, and to clarify that the addition of sodium thiosulfate is only necessary when oxidants are present (e.g., chlorine).

107-111 ~~114 -118~~. Alkylated phenols	G	Cool, < 6 ºC, $Na_2S_2O_3$[5], H_2SO_4 to pH < 2	28 days until extraction, 40 days after extraction
112 ~~119~~. Adsorbable Organic Halides (AOX)	G	Cool, < 6 ºC, 0.008% $Na_2S_2O_3$[5] HNO3 to pH < 2	Hold *at least* 3 days, but not more than 6 months

H2O2 and PAA

Parameter No./name	Container[1]	Preservation[2,3]	Maximum holding time[4]
77. Hydrogen Peroxide	P, G	None required	Analyze within 15 minutes.
78. Peracetic Acid	P, G	None required	Analyze within 15 minutes.

Acrolein/Acrylonitrile

3, 4. Acrolein and acrylonitrile	G, FP -lined septum	~~Cool, < 6°C[18], 0.008% $Na_2S_2O_3$[5]; Adjust pH to 4-5[10]~~ Cool, < 6°C[18], 0.008% $Na_2S_2O_3$[5], HCl to pH2[10]	14 days[10]

10 ~~The pH adjustment is not required if acrolein will not be measured.~~ Samples for acrolein receiving no pH adjustment must be analyzed within 3 days of sampling.

Conclusions

- Preservation
  - pH ≤ 2 preserves the acrolein and acrylonitrile as well as, if not better than, the current pH 4 – 5 requirement.
- Holding Time
  - For acrolein, with pH < 2 acidification, after a 14 day holding time recoveries are at least 80%.
  - For acrylonitrile, with pH <2 acidification, there was little or no loss of analyte during a 14-day holding time.

Reevaluating the Holding Time Requirements for Acrolein and Acrylonitrile, David Friedman, EMS 2021
https://apps.nelac-institute.org/nemc/2021/docs/presentations/pdf/8-11-21-Operational%20Issues%20Impacting%20the%20Environmental%20Laboratory%20Industry-27.05-Friedman.pdf

Footnote 17

- EPA proposes to edit Footnote 17 for Mercury to include mention of Method 245.7 along with Method 1631 in the footnote. Both methods employ the same cold vapor atomic fluorescence spectroscopy (CVAFS) determinative technique and including Method 245.7 in the footnote will help clarify that the 90-day holding time applies to Method 245.7 as well as Method 1631. Currently, Method 245.7 is not specifically mentioned in Table II, which was an oversight.

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17. Samples collected for the determination of trace level mercury (100 ng/L) using Method 1631 or Method 245.7 must be collected in tightly-capped fluoropolymer or glass bottles and preserved with BrCl or HCl solution within 48 hours of sample collection. The time to preservation may be extended to 28 days if a sample is oxidized in the sample bottle. Samples collected for dissolved trace level mercury should be filtered in the laboratory. A sample collected for dissolved trace level mercury should be filtered in the laboratory within 24 hours of the time of collection. However, if circumstances preclude overnight shipment, the sample should be filtered in a designated clean area in the field in accordance with procedures given in Method 1669. If sample integrity will not be maintained by shipment to and filtration in the laboratory, the sample must be filtered in a designated clean area in the field within the time period necessary to maintain sample integrity. A sample that has been collected for determination of total or dissolved trace level mercury must be analyzed within 90 days of sample collection.

Footnote 25

EPA proposes to add a new footnote 25 and apply it to the entry for Phosphorus—Total. The new footnote addresses the fact that many laboratories determine total phosphorus using Method 200.7, an ICP/AES procedure for metals that is also approved for phosphorus. However, as laboratories often note, the acid specified to preserve metals samples is nitric acid, where Table II calls out sulfuric acid for phosphorous. In both cases the specified pH is a value less than or equal to 2. In addition, while Table II allows acidified samples to held for 6 months, it only allows phosphorus samples to be held for 28 days.

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25. When Method 200.7 or another approved ICP/AES method is used to determine total phosphorus, sulfuric acid may be used to preserve the sample to pH ≤ 2, or the acid-preserved sample for metals may be used for analysis, and the holding time for total phosphorus may be extended to 6 months.

Dioxins and Furans

Parameter No./name	Container[1]	Preservation[2,3]	Maximum holding time[4]
60-62, 66-72, 85, 86, 88-90, 95, 96, ~~95-97, 102, 103~~. CDDs/CDFs[11]	G	See Footnote 11.	See Footnote 11.
Aqueous, field and lab preservation	G, FP-lined cap	Cool, < 6°C[18], pH < 9, 0.008% $Na_2S_2O_3$[5]	1 year
Solids and mixed phase samples ~~and tissue~~: field preservation	G, FP-lined cap	Cool, < 6°C[18]	7 days
Tissue samples: field preservation	G, FP-lined cap	Cool, < 6°C[18]	24 hours
Solids, mixed phase and tissue: lab preservation	G, FP-lined cap	Freeze, < -10°C	1 year

AOF

Parameter No./name	Container[1]	Preservation[2,3]	Maximum holding time[4]
114. Adsorbable Organic Fluorine (AOF)	HDPE with linerless HDPE or PP caps [26]	Cool, <6 °C	90 days

26. For AOF, collect three separate containers (see Section 8 of Method 1621).

PCB Congeners

Parameter No./name	**Container**[1]	**Preservation**[2,3]	**Maximum holding time**[4]
Aqueous Samples: Field Preservation	G, FP-lined cap	Cool, ≤6 °C[18], 0.008% $Na_2S_2O_3$[5]	1 year
Solids, Biosolids, and Mixed-Phase Samples: Field Preservation	G, FP-lined cap	Cool, ≤6 °C[18]	1 year
Tissue Samples: Field Preservation	G, FP-lined cap	Cool, ≤6 °C[18]	24 hours
Solids, Biosolids, Mixed-Phase, and Tissue Samples: Lab Preservation	G, FP-lined cap	Freeze, ≤ -10 °C	1 year
Sample Extracts	G, amber	Freeze, < -20 °C	1 year

1-40 PFAS

Parameter No./name	Container[1]	Preservation[2,3]	Maximum holding time[4]
Aqueous Samples: Field Preservation	HDPE or PP, linerless cap[27]	Cool, ≤6 °C[18]	48 hours
Solids, Biosolids, and Mixed-Phase Samples: Field Preservation	HDPE, linerless cap[27]	Cool, ≤6 °C[18]	24 hours [28], or 48 hours
Tissue Samples: Field Preservation	HDPE, linerless cap[27]	Cool, ≤6 °C[18], or Freeze, ≤ -20 °C	24 hours [28], or 48 hours [29]
Leachate Samples: Field Preservation	HDPE or PP, linerless cap[27]	Cool, ≤6 °C[18]	48 hours
Aqueous and Leachate Samples: Lab Preservation	HDPE or PP, linerless cap[27]	Cool, ≤6 °C[18], or Freeze, ≤ -20 °C	28 days, or 90 days
Solids, Biosolids, and Mixed-Phase Samples: Lab Preservation	HDPE, linerless cap[27]	Cool, ≤6 °C[18], or Freeze, ≤ -20 °C	90 days
Tissue Samples: Lab Preservation	HDPE, linerless cap[27]	Freeze, ≤ -20 °C	90 days
Sample Extracts		Cool, ≤6 °C[18], or Freeze, ≤ 0 °C	90 days

PFAS Footnotes

27. Samples for EPA Method 1633 are collected in HDPE containers with linerless HDPE or PP caps. Aqueous samples for ASTM D8241-22 are collected in pre-labeled and pre-weighed 15-mL PP tubes. Containers for either method must be lot-tested and shown to be free of detectable PFAS.

28. Samples should be extracted within 24 hours if NFDHA is a required analyte for a given project.

29. If the whole fish or other seafood sample is frozen within 48 hours of collection, the holding time begins when the tissue is processed for analysis (e.g., filleting, grinding, removal of specific tissue for analysis). Prepared tissue sample aliquots may be held for up to 90 days when stored at less than or equal to -20 °C.

Comments from the Public

- Generally supportive
- 1628 and PCB Congeners drew the most negative comments
- Several minor technical corrections noted

Implementation

- Not Applicable
  - This is a **proposed** rule.
- EPA plans to finalize this rule in 2025 and some states would adopt with EPA's schedule.
- For states that must perform their own rulemaking, it could be up to 2 years after EPA finalizes.

The Big Caveat

- Proposed rule published after the new administration took office.
- EPA (or the President) can pull any rules published 90 days before January 20, 2025.
- This is virtually never done for a proposed rule.
- If it is withdrawn, EPA staff could meet with the new EPA administrator and re-propose.
- The PFAS Roadmap was published when Jeff Pruitt was EPA Administrator.

Announcements

- In May, the EPA Administrator announced the following:
  - Ramp up the development of testing methods to improve detection and strategies to address PFAS
  - Develop effluent limitations guidelines (ELGs) for PFAS manufacturers and metal finishers and evaluate other ELGs necessary for reduction of PFAS discharges

My Prophecy

- 1621 and 1633 will get approved.
- 1628 may get approved, but aroclors will be phased out over a lengthy period.
- Suggested small change will likely get approved.
- All other minor corrections will get approved.

Other PFAS Activities

- Aquatic Life Criteria and Benchmarks
  - 10 specific compounds. Acute criteria ranged from 0.012 to 5.0 mg/L

https://www.govinfo.gov/content/pkg/FR-2024-10-07/pdf/2024-23024.pdf

- National Data Collection for Wastewater Influent and Sludge
  - 400 POTWs with flow rates greater than or equal to 10 MGD

https://www.govinfo.gov/content/pkg/FR-2024-10-10/pdf/2024-23474.pdf

Excerpts from a 2024 webinar

Sampling and Analysis of PFAS in Drinking Water

https://www.govinfo.gov/content/pkg/FR-2024-04-26/pdf/2024-07773.pdf

Quick Summary

- National Primary Drinking Water Regulation (NPDWR)
- Published April 26, 2024; Effective June 25, 2024
- Will apply to 6 specific PFAS.
- Will apply to all Groundwater and Surface Water Systems (49,000 CWS and 17,000 NTNCWS).
- Would require testing by EPA Methods 533 **OR** 537.1, Revision 2.
- Sampling and analytical costs estimated at $90 Million.

Six Regulated PFAS

- PFOA – Perfluorooctanoic acid
- PFOS – Perfluorooctane sulfonic acid
- PFHxS – Perfluorohexane sulfonic acid
- HFPO-DA – Hexafluoropropylene dimer acid (Gen-X)
- PFNA – Perfluorononanoic acid
- PFBS – Perfluorobutane sulfonic acid

Hazard Index

HBWC, ng/L	
HFPO-DA	10
PFBS	2000
PFHxS	10
PFNA	10
PFOA	Not applicable
PFOS	Not applicable

- The Hazard Index ensures that the level of exposure to an individual PFAS remains below that which could impact human health because the exposure for that measured PFAS is divided by its corresponding HBWC.

Hazard Index = (HFPO-DA/10) + (PFBS/2000) + (PFNA/10) + (PFHxS/10)

MCL and PQL for PFAS

Contaminant	MCL, ng/L unless otherwise stated	PQL, ng/L
PFOA	4.0*	4.0
PFOS	4.0*	4.0
Hazard Index	1.0 (unitless)	
HFPO-DA	10**	5.0
PFBS	NA	3.0
PFNA	10**	4.0
PFHxS	10**	3.0

* PQL is a limiting factor; MCL is 2 significant figures.

** PQL is not a limiting factor; MCL is 1 significant figure.

Analytical Results

- Standard Approach
  - Quantitative value above MRL
  - Estimated value (*i.e.*, J-Flag) below MRL, but above MDL
  - Not Detected if below MDL
- Optional approach 1
  - Estimated value (*i.e.*, J-Flag) below MRL, but above Trigger Level
  - Not Detected if below Trigger Level

EPA intends to provide guidance materials with details and examples on this to support successful implementation of the final rule. (Docket 8.8)

Running Annual Average (RAA)

- Use 0 for any result < PQL.
- Average all results for a given Entry Point (EP) obtained each quarter.
- Average the quarterly results.
- Round to 2 significant figures for PFAS and PFOA and 1 significant figure for HI.

Trigger Levels

- While the values below the PQL will not be used to calculate compliance with the MCL, values lower than the PQL are achievable, and therefore lower levels can be used for purposes of managing a system's treatment operations and to **determine compliance monitoring frequency**.
- The trigger level is defined as ½ the MCL, or
  - 2.0 ppt for PFOA and PFOS,
  - 5 ppt for HFPO-DA, PFHxS, and PFNA,
  - not defined for PFBS, and a
  - Hazard Index of 0.5.

Methods

- **EPA Method 533**: Isotope Dilution Anion Exchange Solid Phase Extraction (SPE) and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) - 2019
  - 25 Analytes, 11 not in 537.1
- **EPA Method 537.1 (Rev. 2)**: SPE and LC/MS/MS (Not isotope dilution) - 2018
  - 18 Analytes, 4 not in 533
  - 537.1 version 1.0 not allowed.
  - Differences from Rev 1 are adding preservative in the field and changing SPE cartridge.

Table comparing all analytes can be found here:
https://www.epa.gov/sites/default/files/2019-12/documents/table_of_pfas_methods_533_and_537.1.pdf

PT Samples

- At least once per year for all 6 analytes
  - Twice per year for NELAP
- Limits are at 70-130%
- PT Providers are reporting low failure rates at 70-130% for all 29 analytes in the 2 methods.
- Concentration ranges not specified.

TNI FoPT
Effective December 2024

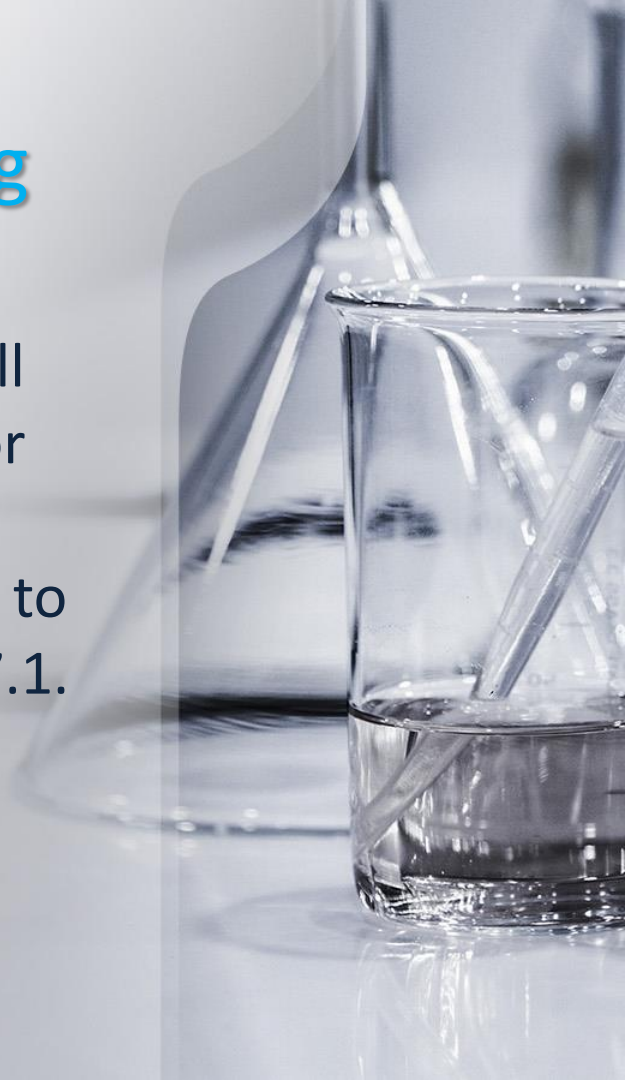
- 29 Analytes
- Concentration range 10 – 200 ng/L
- PTRL = 6 ng/L

https://www.nelac-institute.org/docs/pt/2024/DW_FoPT_PFAS-v0-Added%20for%20comment.pdf

- FoPT table contains all 29 PFAS in 533 and 537.
  - 4 analytes in 537 not in 533
  - 11 analytes in 533 not in 53

EPA Response on Assessor Training

- EPA agrees that training for laboratory certification officers is appropriate. EPA will develop training materials and guidance for drinking water certification programs to evaluate laboratories to ensure adherence to the requirements of Methods 533 and 537.1.



Compliance Dates

PWS must use certified laboratories and laboratories must use the approved methods by June 25, 2024.

- By April 26, 2027, PWS:
  - Must complete initial monitoring and report to primary agency.
  - Must calculate a Running Annual Average (RAA) yearly.
  - May reduce monitoring if results are below trigger levels.
  - Must meet reporting and recordkeeping requirements.
- By April 26, 2029, PWS must be compliant with the MCL and report violations to the State and in their CCR.

Timing

- Effective June 25, 2024
- Some states, e.g., Texas, may require immediately as their regulation defaults to 40 CFR 141.
- Some states, e.g., Florida, must perform rulemaking and this could take 2 years or more.
- Some states, e.g., Michigan, are already requiring, but with different analytes and regulated limits (e.g., 2 ppt) and more frequent monitoring.

OTHER ACTIONS

NPDWR for Perchlorate

- In 2020, EPA decided not to regulate perchlorate.
- In October 2024, EPA announced they will develop a Drinking Water Regulation (DWR) for perchlorate as required by court orders.
- EPA has committed to issuing a proposed DWR for perchlorate by November 2025 and a final regulation by May 2027.

https://www.epa.gov/sdwa/perchlorate-drinking-water

533 Clarification

- Samples received with ice crystals are acceptable for testing under Method 533. EPA has clarified that the intent of Section 8.4 of Method 533 is to prevent laboratories from intentionally freezing samples. However, the presence of ice crystals resulting from shipment during cold weather conditions is not grounds for rejection, provided the integrity of the sample container has not been compromised.

May Announcement

- EPA will keep the current Regulations for PFOA and PFOS.
- EPA will extend compliance deadlines for PFOA and PFOS, establish a federal exemption framework, and initiate enhanced outreach to water systems.
- EPA plans to rescind the regulations and reconsider the regulatory determinations for PFHxS, PFNA, HFPO-DA (commonly known as GenX), and the Hazard Index mixture of these three plus PFBS to ensure that the drinking water regulations follow the legal process laid out in the Safe Drinking Water Act.

Changes to Pb/Cu Rule

- Lowering the action level from 15 to 10 ug/L
- Changing the sampling requirements.
  - New protocol involves collecting collect first- and fifth-liter tap samples and use the higher of the two values when determining compliance. The rule contains extensive discussion of tiered sampling, site selection, sample containers, and related topics.
- Require replacement of service lines if the action level is exceeded and is estimated to cost public water systems $3 Billion over 35 years.
- Effective December 30, 2028 but systems have until November 1, 2027 to come into compliance.

https://www.govinfo.gov/content/pkg/FR-2024-10-30/pdf/2024-23549.pdf

New Methods

- 537.1 for PFAS
  - Version 2.0 exposes the FRB to the preservative (Trizma) at the time of field sample collection, whereas version 1.0 combines the lab reagent water and the preservative together in the FRB prior to field sampling.
- e-sens AMCD Method
  - Automated Micro Chlorine Detection (AMCD) Method for the Determination of Residual Free and Total Chlorine in Water

New Analytes (CCL5)

- EPA will **not** regulate nine additional contaminants from Contaminant Candidate List (CCL) list 5: 2-aminotoluene, cylindrospermopsin, ethoprop, microcystins, molybdenum, permethrin, profenofos, tebuconazole and tribufos.

Thank You!

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