

Proposed PFAS Amendment to the Rules and Regulations Pertaining to Public Drinking Water

Below is a proposed amendment to 216 R.I. Code R. § 50-05-1 (Rules and Regulations Pertaining to Public Drinking Water). The enclosed proposed amendment contains the draft language and formatting of all requested changes. However, in the interest of clarity and concision, the enclosed proposed amendment does not include any of the unaltered sections of 216 R.I. Code R. § 50-05-1. Inclusion of these unaltered sections would result in an unnecessarily long document of over 500 pages. If it is necessary to submit the proposed rule in this form, we are more than happy to provide it.

The enclosed proposed amendment would modify the following sections:

- 1.2 Definitions
- 1.16.2 Organic Chemicals
- 1.16.6 Public Notification of Drinking Water
- 1.16.7 Appendix A to § 1.16.6 of this Part
- 1.16.8 Appendix B to § 1.16.6 of this Part
- 1.16.13 Appendix A to § 1.16.12 - Regulated Contaminants
- 1.21 Appendix 1

PUBLIC DRINKING WATER (216-RICR-50-05-1)

TITLE 216 - DEPARTMENT OF HEALTH

CHAPTER 50 - ENVIRONMENTAL HEALTH

SUBCHAPTER 05 - Water Quality

Part 1 - Public Drinking Water

1.2 Definitions

- A. Wherever used in these regulations the following terms shall be construed as follows:

96. "Per - and Polyfluorinated Alkyl Substances (PFAS)" means a group of man-made chemicals that includes, Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), Perfluorohexanesulfonic acid (PFHxS), Perfluoroheptanoic acid (PFHpA), and Perfluorononanoic acid (PFNA).

1.16 Community Water System Requirements

1.16.2 Organic Chemicals

A. Maximum Contaminant Levels for Synthetic Organic Contaminants

Contaminant	MCL (mg/L)
Per - and Polyfluorinated Alkyl Substances (PFAS)	0.0002

8. If an organic contaminant listed in § 1.16.2(A) of this Part is detected (as defined by § 1.16.2(A)~~(17)~~(18) of this Part) in any sample, then:

18. Detection as used in this Paragraph shall be defined as greater than or equal to the following concentrations for each contaminant.

Contaminant	Detection limit (mg/L)
PFOA	0.00000053
PFOS	0.0000011
PFHxS	0.0000014
PFHpA	0.00000071
PFNA	0.0000007

1.16.6 Public Notification of Drinking Water

B. Tier 1 Public Notice-Form, Manner and Frequency of Notice

1. Table 1 of this Section lists the violation categories and other situations requiring a Tier 1 public notice. § 1.16.7 of this Part identifies the tier assignment or each specific violation or situation.

Table 1 to § 1.16.6(B) of this Part - Violation Categories and Other Situations Requiring a Tier 1 Public Notice
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(9) Violation of the Per - and Polyfluorinated Alkyl Substances (PFAS) MCL (as specified in § 1.16.2(A) of this Part);

1.16.7 Appendix A to § 1.16.6 of this Part

NPDWR VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE				
D. Synthetic Organic Chemicals (SOCs)				
MCL/MRDL/TT Violations			Monitoring, reporting & testing procedure violations	
Contaminant	Tier of public notice required	Citation	Tier of Public Notice Required	Citation
27. Per - and Polyfluorinated Alkyl Substances (PFAS)	1	1.16.2(A)	3	1.16.2(A)

1.16.8 Appendix B to § 1.16.6 of this Part

STANDARD HEALTH EFFECTS LANGUAGE FOR PUBLIC NOTIFICATION			
Contaminant	MCLG mg/L	MCL mg/L	Standard health effects language for public notification
E. Synthetic Organic Compounds (SOCs)			
51. Per - and Polyfluorinated Alkyl Substances (PFAS)	Zero	0.0002	Some people who drink water containing PFAS in excess of the MCL over an extended period of time could experience adverse health effects. There is

			<p>evidence that exposure to PFAS can lead to adverse health outcomes in humans. The most-studied PFAS chemicals are PFOA and PFOS. Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. Both chemicals have caused tumors in animals. The most consistent findings are increased cholesterol levels among exposed populations, with more limited findings related to: low infant birth weights, effects on the immune system, cancer (for PFOA), and thyroid hormone disruption (for PFOS).</p>
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1.16.13 Appendix A to § 1.16.12 - Regulated Contaminants

Contaminant (units)	Traditional MCL in mg/L	To convert for CCR multiply by	MCL in CCR units	MCLG	Major sources in drinking water	Health effects language
Synthetic organic contaminants including pesticides and herbicides						
Per - and Polyfluorinated Alkyl Substances (PFAS)	0.0002			Zero	Typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).	Some people who drink water containing PFAS in excess of the MCL over an extended period of time could experience adverse health effects. There is evidence

					<p>Discharge from manufacturer, run off from landfills.</p>	<p>that exposure to PFAS can lead to adverse health outcomes in humans. The most-studied PFAS chemicals are PFOA and PFOS. Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. Both chemicals have caused tumors in animals. The most consistent findings are increased cholesterol levels among exposed populations, with more limited findings related to: low infant birth weights, effects on the immune system, cancer (for PFOA), and thyroid hormone</p>
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						disruption (for PFOS).
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1.21 Appendix 1

B. CHEMISTRY

4. Synthetic Organic Chemistry (SOCs) References for §§ 1.16.2, 1.16.6, 1.17.3 and 1.17.5 of this Part.

a. Regulated Synthetic Organic Chemicals

(1) Methodology

(MM) Method 537.1 Determination of Selected Per- and Polyfluorinated Alkyl Substances in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), November 2018, can be accessed and downloaded directly online at https://cfpub.epa.gov/si/si_public_record_Report.cfm?dirEntryId=343042&Lab=NERL.

Synthetic Organic Chemicals				
Contaminant	EPA Method	Standard Methods	ASTM	Other
Per - and Polyfluorinated Alkyl Substances (PFAS)	537.1			

(2) Laboratory Criteria

(AA) Analysis under this Section shall only be conducted by laboratories that have received certification by EPA or the State and have met the following conditions:

(iii) Achieve quantitative results on the analyses that are within the following acceptance limits:

Contaminant	Acceptance Limits (percent)
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PFOA	2 standard deviations
PFOS	2 standard deviations
PFHxS	2 standard deviations
PFHpA	2 standard deviations
PFNA	2 standard deviations

(iv) Detection shall be defined as greater than or equal to the following concentrations for each contaminant:

Contaminant	Detection limit (mg/L)
PFOA	0.00000053
PFOS	0.0000011
PFHxS	0.0000014
PFHpA	0.00000071
PFNA	0.0000007