

Fifth Unregulated Contaminant Monitoring Rule (UCMR5)

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What is the Unregulated Contaminant Monitoring Rule (UCMR)?

- Collects data for contaminants known or suspected to be present in drinking water but do not yet have health-based standards
- 1996 Safe Drinking Water Act (SDWA) amendments require that once every 5 years the EPA issue a list of no more than 30 unregulated contaminants be monitored for by public water systems [SDWA section 1445(a)(2)]
- Requires certain public water systems (PWS) to monitor
- Store results in a national contaminant occurrence database
- Provides for notification to customers

What is the Purpose of the UCMR Program?

- Monitoring provides information on the frequency and level of unregulated contaminants found in the nation's drinking water
- Collects nationally representative occurrence data for unregulated contaminants, which are considered as part of future EPA science-based decision-making under the SDWA
- Provides data to States, Tribes, local governments, and to the public for their use in decisions regarding public health protection.

How is UMCR Implemented?

- EPA Headquarters (HQs): Directly implements the regulation.
 - Establishes sampling plans, conducts notification and outreach, manages sample points and schedule changes, distributes sample kits to small systems, provides technical and compliance assistance, supports the reporting system, oversees laboratory approval, reviews data, reports occurrence data to public.
- **EPA Region 8:** Supports HQs by conducting outreach and compliance assistance
 - Assist States and public water systems with requirements, conducts enforcement, coordinates State Partnership Agreements

What is the Fifth Unregulated Contaminant Monitoring Rule (UCMR5)?

- UCMR5 final rule was promulgated on December 27, 2021
- Regulation is published at 40 CFR 141.40
- Sampling for 30 unregulated contaminants
- Monitoring at entry points to the distribution system between 2023 and 2025
- Summary of final data will be completed in 2026.

UCMR5 homepage:

https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule

Who Does the Rule Apply to?

Community water systems and non-transient non-community water systems:

- Systems serving 3,300 or more persons must monitor
- Nationally representative sample of systems serving fewer than 3,300 people monitor

What Contaminants are Sampled?

EPA Method 533			
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	4,8-dioxa-3H-perfluorononanoic acid (ADONA)		
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)		
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	Perfluorobutanesulfonic acid (PFBS)		
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	Perfluorodecanoic acid (PFDA)		
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	Perfluorododecanoic acid (PFDoA)		
Perfluoro-3-methoxypropanoic acid (PFMPA)	Perfluoroheptanoic acid (PFHpA)		
Perfluoro-4-methoxybutanoic acid (PFMBA)	Perfluorohexanoic acid (PFHxA)		
Perfluorobutanoic acid (PFBA)	Perfluorohexanesulfonic acid (PFHxS)		
Perfluoroheptanesulfonic acid (PFHpS)	Perfluorononanoic acid (PFNA)		
Perfluoropentanesulfonic acid (PFPeS)	Perfluorooctanesulfonic acid (PFOS)		
Perfluoropentanoic acid (PFPeA)	Perfluorooctanoic acid (PFOA)		
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	Perfluoroundecanoic acid (PFUnA)		
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)			
PFAS Analytes Unique to EPA Method 537.1			
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluorotetradecanoic acid (PFTA)		
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	Perfluorotridecanoic acid (PFTrDA)		
EPA Method 200.7 or Alternate SM 3120 B or ASTM D1976-20			
Lithium			

What Monitoring is Required?

Monitoring is at each entry point to the distribution system

Water Source	Timeframe	Frequency
Surface water, ground water under the direct influence of surface water, or mixed sources systems	Year-Round	Systems must monitor 4 times during a consecutive 12-month monitoring period. Sample events must occur 3 months apart
Ground water systems	Year-Round	Systems must monitor 2 times during a consecutive 12-month monitoring period. Sample events must occur 5-7 months apart

- EPA pays for the sampling and analytical costs for small systems
- Large systems are responsible for their own costs

How Many Systems are Monitoring?

 10,311 systems monitoring nationwide (800 of these are representative small systems serving <3,300 persons)

 489 systems are monitoring in EPA Region 8 (Table 1)

 33 Wyoming and 13 Tribal systems will monitor during 2023 to 2025

Table 1. Number of Region 8 UCMR5 Systems

System Size	Total # of Systems
Small and Medium Systems (25 – 10,000 persons served)	298
Large Systems (10,001 and over persons served)	191
TOTAL	489

[&]quot;Large Systems" serve over 10,000 persons

[&]quot;Small Systems" serve 10,000 persons or fewer

How Were Wyoming Systems Notified?

- Notifications were sent to all public water systems subject to UCMR5 and included:
 - Instructions on how to access EPA's web-based data reporting system, the Safe Drinking Water Accession and Review System 5 (SDWARS5), through EPA's secure Central Data System (CDX) portal
 - Actions to take in SDWARS5 to prepare for monitoring
- Most notifications sent via email from UCMR@epacdx.net. Emails were sent to multiple contacts at each system, if available.
- Systems without a valid email address were physically mailed notifications. The letter was addressed to the system and not a specific person.

What Does the Notification Letter Look Like?

RE: Large PWS Registration for U.S. EPA's Fifth Unregulated Contaminant Monitoring Rule

<PWSID; PWS NAME>

Your CRK is: <CRK#>

Dear Public Water System:

Our records indicate that your public water system (PWS) is subject to the requirements of the next <u>Unregulated Contaminants Monitoring Rule (UCMR 5)</u>, published on December 27, 2021 (86 FR 73131). UCMR 5 requires certain PWSs to collect drinking water samples for 29 per- and polyfluoroalkyl substances (PFAS) and lithium analysis during a 12-month period between 2023 and 2025. This notification provides you with information to access the UCMR 5 internet-based reporting system, the Safe Drinking Water Accession and Review System (SDWARS 5), so that your account will be ready to support your pre-sampling and monitoring responsibilities.

The Safe Drinking Water Act (SDWA), as amended in 1996, requires the U.S. Environmental Protection Agency (EPA) to establish criteria for a program to monitor unregulated contaminants in drinking water and to identify contaminants to be monitored every five years. The UCMR dataset is one of the primary sources of information on occurrence and population exposure EPA uses to develop regulatory decisions for contaminants in the public drinking water supply. Under UCMR 5, large community water systems and non-transient, non-community water systems (i.e., those serving more than 10,000 people as of February 1, 2021), including those that purchase all their water, are among the PWSs required to participate. Large PWSs are responsible for collecting drinking water samples, having them analyzed by a UCMR 5 EPA approved laboratory, reporting the results to SDWARS 5, and notifying the public of the results.

Those reporting or reviewing UCMR 5 data will use a secure portal, the Central Data Exchange (CDX), to access SDWARS 5. To register for your CDX/SDWARS 5 account, go to http://cdx.epa.gov/preregistration/, enter the customer retrieval key (CRK) listed above, and follow the directions to complete registration. You will have the option of using an existing CDX

What Laboratories are Used for UCMR5?

 Only EPA approved laboratories can be utilized for analytical services for UCMR monitoring

• EPA administers a laboratory approval program

EPA's list of approved laboratories:
https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule

List of EPA Approved Laboratories for UCMR5

- 61 labs have attained EPA approval in one or more of the UCMR5 methods
- 6 of these labs are contracted by EPA for small system sample analysis
- If EPA revokes approval, or the lab requests to discontinue program participation, it will be removed from the list

Laboratories Approved by EPA to Support UCMR 5



EPA approved the following laboratories after they met the application requirements and Proficiency Testing (PT) criteria for the Laboratory Approval Program (LAP) supporting the fifth cycle of the Unregulated Contaminant Monitoring Rule (UCMR 5). These laboratories can analyze UCMR 5 samples using those methods marked with an "X" next to their names. Any laboratory that withdraws from the LAP or subsequently fails to meet the method and program quality assurance/quality control (QA/QC) requirements will be permanently removed from this list.

Laboratory Information		Per- and Polyfluoroalkyl Substances (PFAS)		Commercial
Laboratory information	EPA 533	EPA 537.1 Rev 2.0	EPA 200.7	Services
Accurate Environmental, LLC 505 South Lowry Stillwater, OK 74074 (405) 372-5300 danny.chance@accuratelabs.com	Х	Х	Х	Х
Advanced Environmental Laboratories, Inc. 9610 Princess Palm Avenue Tampa, FL 33619 (813) 630-9616			Х	Х
Advanced Environmental Laboratories, Inc. 6681 Southpoint Parkway Jacksonville, FL 32216 (904) 363-9350	Х	Х	Х	Х
Alpha Analytical 320 Forbes Boulevard Mansfield, MA 02048 (508) 898-9220	Х	Х	Х	Х
ALS Environmental - Holland				

What are Your Responsibilities?

1. Register for a SDWARS5 account via EPA's Central Data Exchange (CDX)

• EPA's communication about sample reminders and reporting requirements

2. Complete reporting requirements in SDWARS5 (walkthrough video at https://www.youtube.com/watch?v=csJTrqAnkkk)

- Accept notification letter, review sampling locations and schedule, confirm physical shipping address, add ZIP Code(s) served, respond to data elements (questions about disinfection, treatment, historical detections, potential PFAS sources), nominate additional users (optional)
- If necessary, small systems were physically mailed Monitoring Review Sheets to confirm or obtain a shipping address and sampling location information

3. Collect and ship samples according to your monitoring schedule in SDWARS5

- Large systems coordinate with an EPA approved lab of their choosing
- Small systems use the sampling kits and materials provided by EPA's implementation contractor, GLEC (Great Lakes Environmental Center)

UCMR5 Sample Collection Video for Small Systems

https://www.youtube.com/watch?v=8cHIxUTDPgE



Frequently Asked Question

How does EPA determine if a public water system monitors under UCMR5?

The determination of whether a PWS is required to monitor under this rule is based on the type of system (e.g., community water system, non-transient non-community water system), and its retail population, as indicated by SDWIS/Fed on February 1, 2021, or subsequent corrections from the State.





I purchase 100% of my water, am I subject to UCMR5?

Yes. Purchasing 100% of your water that is supplied to customers does not exclude a public water system from UCMR 5. 40 CFR 141.40(a)(2) specifies UCMR 5 applicability. PWSs that purchase any of their water supply (i.e., 0-100%) and serve more than 10,000 people are required to monitor. Systems that serve 3,300 to 10,000 people are required to monitor if notified by EPA. Systems that have a retail population of <3,300 are only required to monitor if they are selected as part of the nationally representative sample and notified by EPA.





I receive water from another water system via a consecutive connection. Where should I take my entry point to the distribution system sample?

EPA advises samplers to collect from the closest location to the EPTDS that can be readily, safely, and consistently accessed. The PWS should contact the UCMR Message Center (ucmr5@glec.com) with additional questions/concerns.





What is the approximate cost for a laboratory to analyze one UCMR5 sample set?

Method Type	Average Analysis Cost per UCMR 5 Sample ¹	
25 PFAS using EPA Method 533 (Solid Phase Extraction (SPE) Liquid	\$376	
Chromatography-Tandem Mass Spectrometry (LC-MS/MS))	Ş570 -	
4 PFAS using EPA Method 537.1 Solid Phase Extraction (SPE) Liquid	\$302	
Chromatography-Tandem Mass Spectrometry (LC-MS/MS))	\$302	
1 Metal using EPA Method 200.7 (Inductively Coupled Plasma-Atomic	\$62	
Emission Spectrometry (ICP-AES)) or alternate SM ² or ASTM ³	Ş0Z	
Total ⁴	\$740	

¹The average analytical cost was determined by averaging estimates provided by four drinking water laboratories. Data can be found in the "Information Collection Request."

² Standard Method (SM) 3120 B or SM 3120 B-99

³ ASTM International (ASTM) D1976-19

⁴If a PFAS sample is positive, the Field Reagent Blank (FRB) must be analyzed, resulting in higher aggregate analytical costs per sample set. PWSs may incur a cost of up to \$1,333, if the FRB for both EPA Method 533 and 537.1 must be analyzed.

Are There Any Options to Reduce Monitoring?

- Representative Sampling from Wholesaler Connections
 - Public water systems that purchase water with multiple connections from the same wholesaler may select one representative connection from that wholesaler.
- Groundwater Representative Monitoring Plan (GWRMP) Program
 - Public water systems with multiple groundwater wells may choose a sample location that is representative of the groundwater at all the wells within the proposed area.

What Needs to be Reported to Your Customers?

Public Notification Required by §141.207 for CWS and NTNCWS:

- PWS must notify persons served of the availability of the results no later than 12-months after monitoring results are known
- Follows Tier 3 public notice §141.204(c), (d)(1) and (d)(3)
- Special requirement
 — notice must identify a person and the telephone number to contact for information on monitoring results
- CWS may include their public notice within their CCRs
- For additional information: https://www.epa.gov/dwreginfo/public-notification-rule

What Needs to be Reported to Your Customers?

Consumer Confidence Reports (CCRs) for CWS [40 CFR §141.153(d)(7)]:

- **Detected unregulated contaminants**, for which monitoring is required (except Cryptosporidium), the table(s) must contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring for unregulated contaminants.
 - Example language: Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
- For additional information: https://www.epa.gov/ccr

What About Lithium Detections?

- Lithium is a naturally occurring metal; found at higher concentrations in arid locations in the Western U.S.
- Used in pharmaceuticals a long time to treat certain medical conditions.
- Limited information is available to evaluate health risks at the levels associated with typical drinking water consumption, which are thought to be much lower than patients prescribed lithium as a therapy.
- EPA cannot confidently estimate the risk for people with lithium exposures from drinking water between the UCMR5 reporting limit of 9 µg/L (micrograms per liter) and a much higher concentration equivalent to a therapeutic dose (≥ 240,000 µg/L).
- The science on the potential for lithium's health effects is still evolving.

Q&As and technical fact sheet on lithium: https://www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule#lithium.

Accessibility and Availability of UCMR5 Data

- Access your results:
 - <u>Small systems</u> EPA reviews results and quality control data and makes available to you via SDWARS5
 - <u>Large systems</u> Laboratories upload results to SDWARS5, opportunity for approval, makes available to Region 8 and you via SDWARS5
- Public's access:
 - Results published online in National Contaminant Occurrence Database: https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule
 - National Data Summaries posted quarterly
 - Zipped data files for downloading
 - Data Finder Tool New

What Resources are Available?

- Homepage for Monitoring the Occurrence of Unregulated Drinking Water Contaminants: www.epa.gov/dwucmr.
- Fifth UCMR: www.epa.gov/dwucmr/fifth-unregulated-contaminant-monitoring-rule
 - UCMR5 fact sheet
 - Q's & A's
 - Contaminant list and minimum reporting levels
 - Copy of Final rule
 - Public stakeholder meetings (training webinars)
 - Approved laboratories list; sample collection video; SDWARS5 walkthrough video
 - Access to occurrence data

Who Can I Contact with Questions?

- UCMR Message Center (UCMR5@glec.com or 1-800-949-1581)
 - General questions about requirements, navigating SDWARS5, small system schedule changes, correction to sample locations, obtaining a copy of your notification/registration letter
- Small System Sampling Hotline (<u>UCMR@glec.com</u> or (231) 525-0521)
 - Immediate assistance on sampling, sampling kits, shipping
- UCMR Sampling Coordinator (UCMR Sampling Coordinator@epa.gov)
 - Large system schedule changes, sampling locations, source water changes, representative monitoring
- CDX Help Desk (helpdesk@epacdx.net or 1-888-890-1995)
 - CDX/SDWARS5 registration issues

Final PFAS National Primary Drinking Water Regulation (NPDWR)

https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas

- Promulgated April 26, 2024
- Establishes legally enforceable MCLs for 6 PFAS in drinking water: PFOA, PFOS, PFHxS, PFNA, PFBS, and HFPO-DA (GenX Chemicals)
- Applies to CWS and NTNCWS

- Initial monitoring must be conducted by 2027, followed by compliance monitoring
- Comply with the MCLs by 2029
- Notify Consumers of Violations for monitoring and reporting and exceeding the MCL

Which UCMR5 Contaminants are now Regulated?

EPA Method 533		
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	Perfluorobutanesulfonic acid (PFBS)	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	Perfluorodecanoic acid (PFDA)	
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	Perfluorododecanoic acid (PFDoA)	
Perfluoro-3-methoxypropanoic acid (PFMPA)	Perfluoroheptanoic acid (PFHpA)	
Perfluoro-4-methoxybutanoic acid (PFMBA)	Perfluorohexanoic acid (PFHxA)	
Perfluorobutanoic acid (PFBA)	Perfluorohexanesulfonic acid (PFHxS)	
Perfluoroheptanesulfonic acid (PFHpS)	Perfluorononanoic acid (PFNA)	
Perfluoropentanesulfonic acid (PFPeS)	Perfluorooctanesulfonic acid (PFOS)	
Perfluoropentanoic acid (PFPeA)	Perfluorooctanoic acid (PFOA)	
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	Perfluoroundecanoic acid (PFUnA)	
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)		
PFAS Analytes Unique to	EPA Method 537.1	
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	Perfluorotetradecanoic acid (PFTA)	
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	Perfluorotridecanoic acid (PFTrDA)	
EPA Method 200.7 or Alternate SM 3120 B or ASTM D1976-20		
Lithium		

Can UCMR5 Data Satisfy the Initial Monitoring Requirements for the PFAS NPDWR?

- Samples collected for UCMR5, collected on or after January 1, 2023, can be used to satisfy the initial monitoring requirements for the PFAS rule [40 CFR 141.902(b)(1)(vi)].
- UCMR5 sampling will completely satisfy the PFAS initial monitoring requirements if collected as scheduled, <u>except</u>:
 - UCMR5 sample collection by groundwater systems serving > 10,000 persons will partially satisfy the initial monitoring requirements
 - UCMR5 requires two samples collected 5 to 7 months apart during a 12-month period.
 - Whereas PFAS NPDWR requires four quarterly samples collected 2 to 4 months apart.
 - These systems must collect in a calendar year one sample in each quarter that was not represented, two to four months apart from the months with available data.

What are the PFAS Regulatory Levels?



Chemical	Maximum Contaminant Level (MCL)	
PFOA	4.0 ppt	
PFOS	4.0 ppt	
PFHxS	10 ppt	
PFNA	10 ppt	
HFPO-DA (GenX chemicals)	10 ppt	
Mixtures of two or more:	Hazard Index of 1	
PFHxS, PFNA, HFPO-DA, and PFBS	(unitless)	

*Compliance is determined by running annual averages at the sampling point.

What Happens When Your UCMR5 Result is Above the PFAS MCLs?

- EPA regularly reviews UCMR5 results
- If one or more of the PFAS chemicals exceeds the MCLs, we will notify you and recommend public notice
 - System shall notify their customers within 30 days of notification from EPA
 - EPA will provide system with a template to use for communicating with customers
- Confirmation samples will be offered, collected, and analyzed by EPA's Region 8 lab to confirm detection(s) before public notice

What Support Will be Provided to You?

- Guidance on the collection of confirmation samples
- Collaboration for providing public notice to customers
- EPA provided public notice template
- Ongoing consultation and assistance
- Funding options for addressing contamination in public drinking water



What Funds Support Drinking Water Needs?

The Bipartisan Infrastructure Law (BIL) provides \$9 billion to invest in communities impacted by PFAS and other emerging contaminants in drinking water: www.epa.gov/infrastructure.

\$4 billion

Drinking Water State Revolving Fund

\$5 billion

Small or Disadvantaged Communities Drinking-Water Grants

Contact: Karen Simpson, Emerging Contaminants Coordinator simpson.karen@epa.gov or (303) 312-6449

What Funding is Available to Address PFAS Contamination in Wyoming Drinking Water?

- State Revolving Funds Program's Emerging Contaminant Funds (\$2.8 million in FY2024)
 - No match required; 100% loan forgiveness
 - At least 25% must go to small or disadvantaged communities
 - Primary purpose must be to address emerging contaminants in drinking water with a focus on perfluoroalkyl and polyfluoroalkyl substances (PFAS)

Grants

• Emerging Contaminants Small and Disadvantaged Communities Grants (\$37,828,000 in FY22/23)

Technical assistance

 Environmental Finance Center WaterTA: no-cost direct technical assistance to evaluate drinking water, wastewater, stormwater infrastructure, and water quality improvement needs.

What are the Best Available (BAT) Technologies for PFAS Removal?

- Granular Activated Carbon (GAC)
- Anion Exchange
- Reverse Osmosis/Nanofiltration (RO/NF)



Quiz Question

The Unregulated Contaminant Monitoring Rule is:

- a. A voluntary national survey which serves as one of the primary sources of scientific information on occurrence and levels of exposure from unregulated contaminants in public drinking water supplies.
- b. Requires community water systems and non-transient non-community water systems to collect national occurrence data for contaminants suspected to be present in drinking water but do not have established health-based standards under the Safe Drinking Water Act.
- c. Requires that no more than 50 unregulated contaminants be monitored for by public water systems every 5 years.





Contact Information:

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Appendix

PFOA/PFOS Regulatory Determination Evaluation

Informed by

 2016 OW PFOA/PFOS Health Effects Support Documents

Informed by

- Population exposed and adverse health impacts
- Persistence and biomonitoring
- Analytical methods
- Treatment technologies
- Public concern

SDWA Regulatory Criteria

The contaminant may have an **adverse effect** on the health of persons;

The contaminant is **known to occur or there is a substantial likelihood** that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and

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.

Final Determination to Regulate

Informed by

- UCMR 3 Monitoring
- State Monitoring

How can I dispose of PFAS-containing treatment media?

- EPA is developing Guidance on Destroying and Disposing of Certain PFAS and PFAS-Containing Materials That are Not Consumer Products (Interim Guidance updated April 2024)
- Offers guidance for decision-makers on effective methods for destruction and disposal of PFAS-containing materials, including spent treatment media

Table 2-4. Destruction and Disposal Options for Drinking Water Treatment Residuals Containing PFAS

Treatment Process	Residuals Generated	Destruction/ Disposal Option(s)	Section Reference
Granular Activated	Spent GAC	Reactivation	3.a.i.2
Carbon		Incineration	3.a
		Landfill	3.b
Ion Exchange	Single use and regenerative	Incineration	3.a
	ion exchange: spent resins	Landfill	3.b
	Regeneration brine	Interim Storage	1.c
		Underground Injection	3.c.ii.1
RO/NF	Brine	Permitted discharge, direct or indirect	Not described in this guidance. Refer to permit.

More information: https://www.epa.gov/pfas/interim-guidance-destroying-and-disposing-certain-pfas-and-pfas-containing-materials-are-not