



HERITAGE® |

PFAS Legislative and Regulatory Update
IDEM Pollution Prevention Partners
Conference

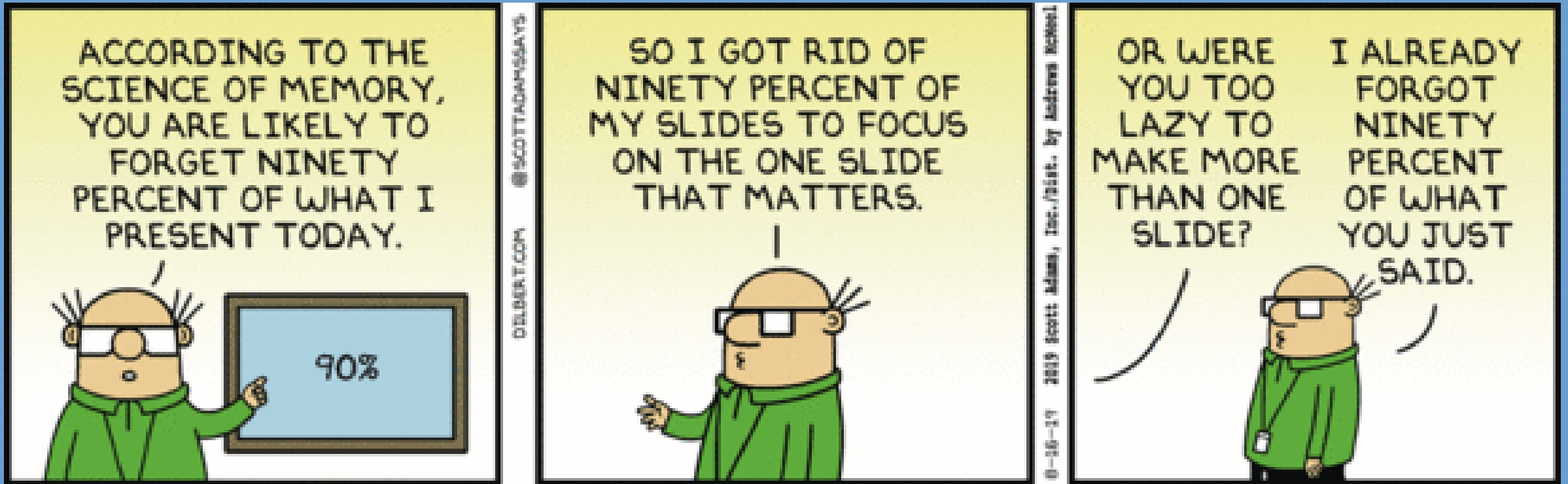
September 21, 2022

Angie Martin, PE, CHMM



Angie.martin@heritage-enviro.com

- Senior Vice President, Heritage Environmental Services
 - Sustainability and Engineering
 - Customer Compliance Training
 - National Emergency Response
 - Waste Allocation
- EPA e-Manifest Advisory Board
- Environmental Technology Council – Chair
- The Pesticide Stewardship Alliance – President
- Spill Control Association – Vice President
- Purdue EEE Advisory Board
- Purdue University, Civil Engineering



Source: Adams, Scott; Dilbert.com; 8/16/19

A perfection of means, and confusion of aims, seems to be our main problem.

Source: Albert Einstein

PER- AND POLYFLUOROALKYL SUBSTANCES

PFAS



Perfluorinated chemicals carbon atoms are totally fluorinated like perfluorooctanoate (PFOA) and perfluorooctane sulfonate (PFOS).
Polyfluorinated chemicals have at least one carbon chain atom that is not totally fluorinated.

PFAS, PFOA,
PFOS

Why PFAS?

Unique physical and chemical properties

Oil and water repellency

Temperature resistance

Friction reduction

How PFAS?



Mobile



Persistent



Bioaccumulative



Not know to degrade in environment

Where PFAS?

Coatings for textiles,
paper products,
cookware

AFFF

Applied in aerospace,
photographic imaging,
semiconductor,
automotive, construction
electronics, aviation

Where Is PFAS in the Environment?

Groundwater

Drinking Water

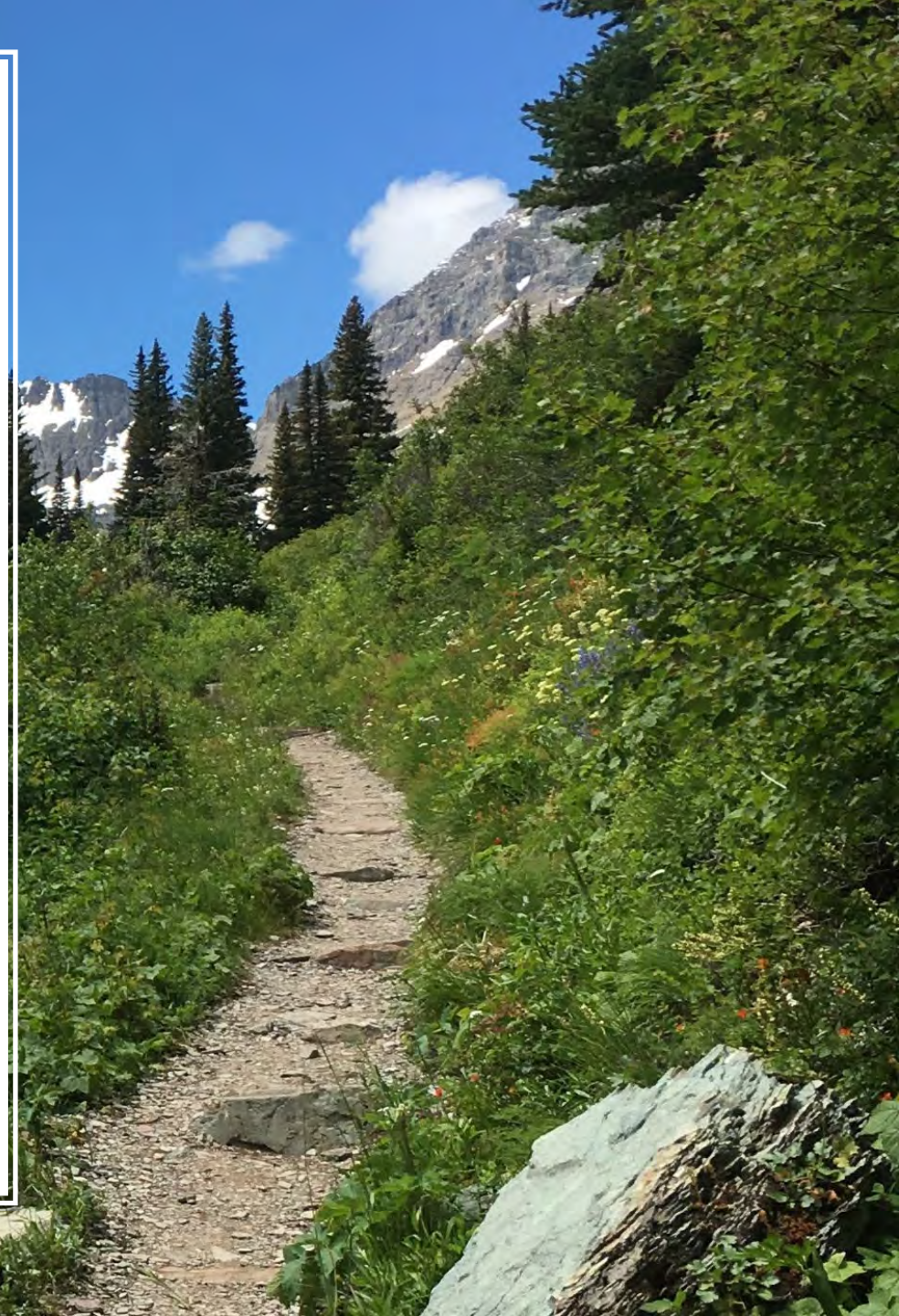
Wastewater (industrial and municipal)

Soil

Air?

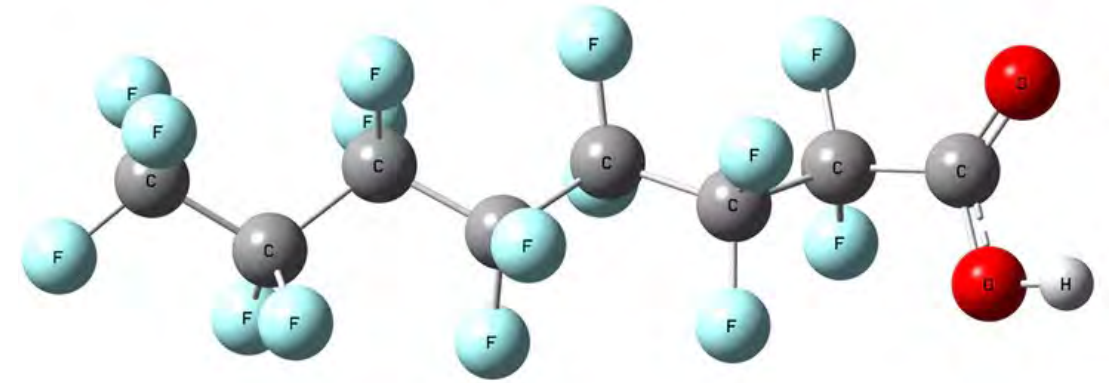
People

Your couch, carpet, clothes, shoes, cooking items,



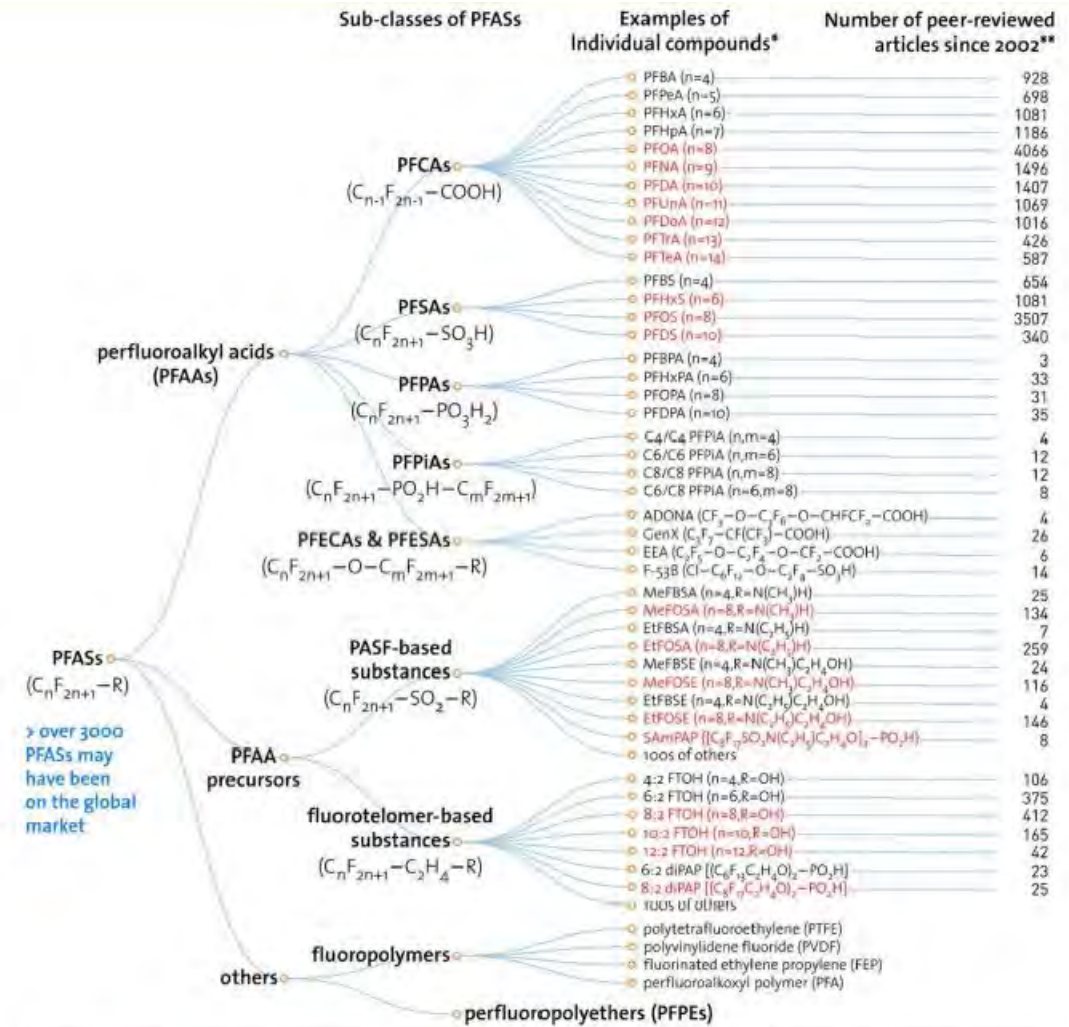
PFAS Introduction

- Group of man-made chemicals
- Used in:
 - Water and stain repellents
 - Nonstick coatings
 - Polishes, waxes, and paints
 - Cleaning products
 - Firefighting foams (AFFF)
- Known to cause harmful health effects
- C-F is a very strong bond
- F has the highest electronegativity on periodic chart



PFAS Classifications

- Main Classes:
 - Acids (PFAAs)
 - Precursors
 - Others
- Many Sub-classes
 - Carboxylic acids
 - Sulfonic acids
 - Fluorotelomers
- Thousands of individual compounds




* PFASs in RED are those that have been restricted under national/regional/global regulatory or voluntary frameworks, with or without specific exemptions (for details, see OECD (2015), Risk reduction approaches for PFASs. <http://oe.cd/1AN>).
 ** The numbers of articles (related to all aspects of research) were retrieved from SciFinder® on Nov. 1, 2016.



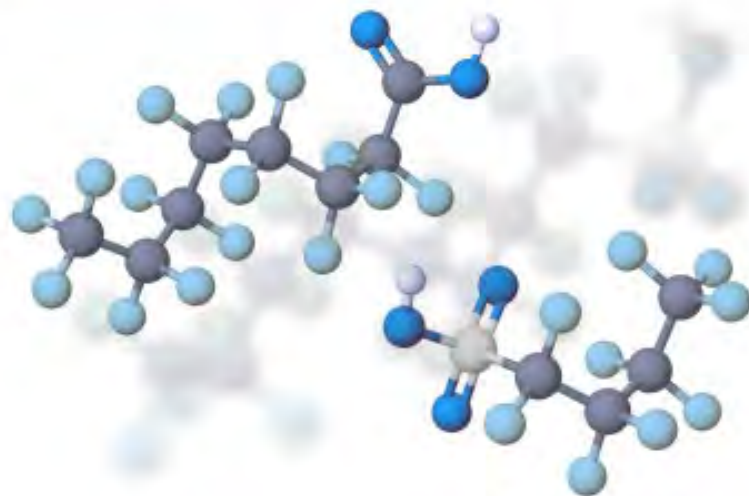
History and Production

- Brief History
 - Began manufacturing in early 1940s, sold for decades
 - Placed in unlined landfills and into rivers
 - Failed to properly alert public of dangers
 - Multiple lawsuits against companies that produced PFAS
- PFOA Stewardship Program (2006)
 - 8 companies agree to reduce PFOA emissions by 95% by 2010
 - All 8 companies report they met the goals
 - Only applied to PFOA, companies now using different PFAS



PFAS Regulation Is Wild, Wild West

EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan



EPA PFAS Action Plan: Program Update

FEBRUARY 2020



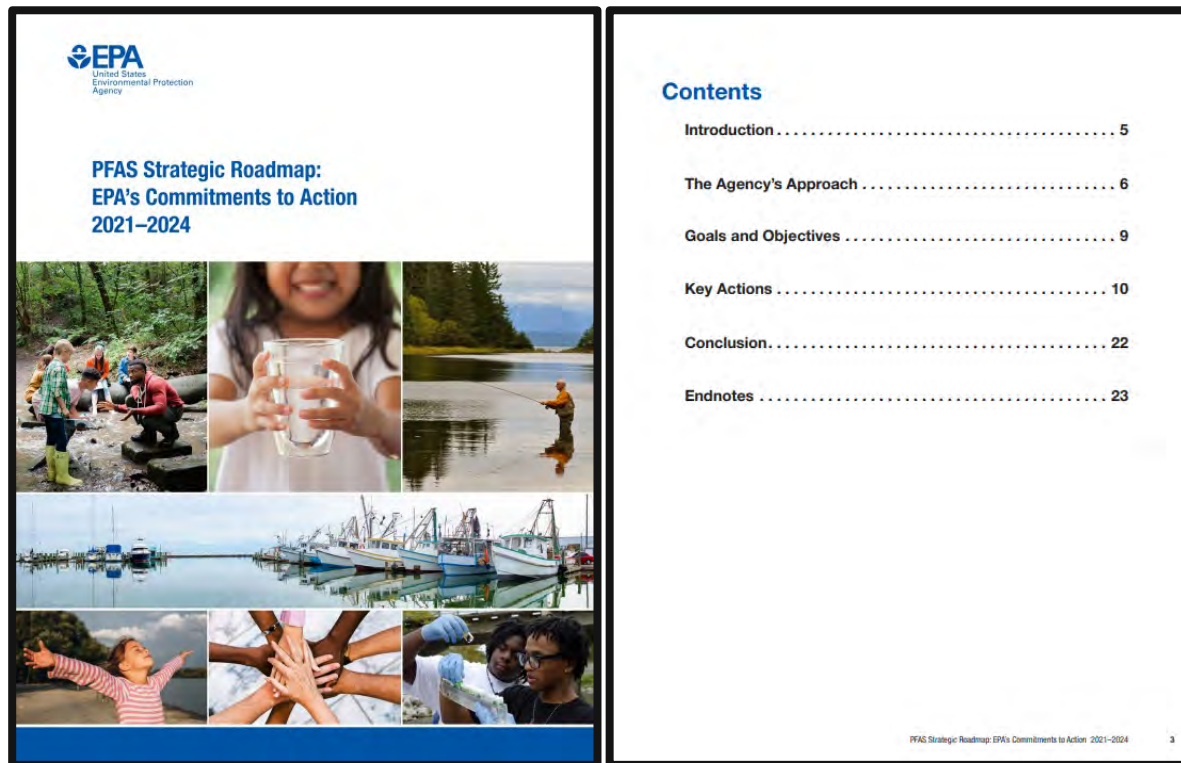
EPA Council on PFAS

April 2021

- Charged to develop the PFAS Strategic Roadmap
- “Whole-of-EPA” approach
- Plan to make serious progress during first term of Biden-Harris
- Comprised of senior technical and policy leaders from EPA program offices and Regions

October 18, 2021

EPA Strategic Roadmap: EPA's Commitments to Action 2021-2024



The Agency's Approach

- *Consider the Lifecycle of PFAS*
- *Get Upstream of the Problem*
- *Hold Polluters Accountable*
- *Ensure Science-Based Decision Making*
- *Prioritize Protection of Disadvantaged Communities*

Goals and Objectives

EPA's comprehensive approach to addressing PFAS is guided by the following goals and objectives.

RESEARCH

Invest in research, development, and innovation to increase understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best available science.

Objectives

- Build the evidence base on individual PFAS and define categories of PFAS to establish toxicity values and methods.
- Increase scientific understanding on the universe of PFAS, sources of environmental contamination, exposure pathways, and human health and ecological effects.
- Expand research on current and emerging PFAS treatment, remediation, destruction, disposal, and control technologies.
- Conduct research to understand how PFAS contribute to the cumulative burden of pollution in communities with environmental justice concerns.

RESTRICT

Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.

Objectives

- Use and harmonize actions under all available statutory authorities to control and prevent PFAS contamination and minimize exposure to PFAS during consumer and industrial uses.
- Place responsibility for limiting exposures and addressing hazards of PFAS on manufacturers, processors, distributors, importers, industrial and other significant users, dischargers, and treatment and disposal facilities.
- Establish voluntary programs to reduce PFAS use and release.
- Prevent or minimize PFAS discharges and emissions in all communities, regardless of income, race, or language barriers.

REMEDiate

Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

Objectives

- Harmonize actions under all available statutory authorities to address PFAS contamination to protect people, communities, and the environment.
- Maximize responsible party performance and funding for investigations and cleanup of PFAS contamination.
- Help ensure that communities impacted by PFAS receive resources and assistance to address contamination, regardless of income, race, or language barriers.
- Accelerate the deployment of treatment, remediation, destruction, disposal, and mitigation technologies for PFAS, and ensure that disposal and destruction activities do not create new pollution problems in communities with environmental justice concerns.



Office of Chemical Safety and Pollution Prevention

- Publish a national PFAS testing strategy to deepen understanding of the impacts of categories of PFAS, including potential hazards to human health and the environment. ***(National Testing Strategy released October 2021)***
- Ensure a robust review process for new PFAS under the Toxic Substances Control Act to ensure these substances are safe before they enter commerce. ***(ongoing)***
- Review existing PFAS under TSCA to ensure existing PFAS are being used in ways that do not present concerns, and to prevent resumed production of legacy PFAS or their use in new ways. ***(expected summer 2022 and ongoing)***
- Enhance PFAS reporting under the Toxics Release Inventory by proposing a rulemaking to remove exemptions and exclusions for toxic chemical reporting. ***(expected spring 2022)***
- Finalize new PFAS reporting under TSCA Section 8 to better characterize the sources and quantities of manufactured PFAS in the United States. ***(expected winter 2022)***

EPA issued first toxicology test order in June 2022 under Section 4 of TSCA



National PFAS Testing Strategy: Identification of Candidate Per- and Poly- fluoroalkyl Substances (PFAS) for Testing

October 2021

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Contents

Overview	3
1. Introduction	3
2. Purpose	4
3. Starting List of PFAS	5
4. Dividing PFAS into Categories	6
5. Assembling Existing Toxicity Data	10
6. Initial Test Candidate Identification	10
7. Potential Tests	11
8. Phased Implementation	14
Appendix A: List of PFAS Candidates for Testing	16

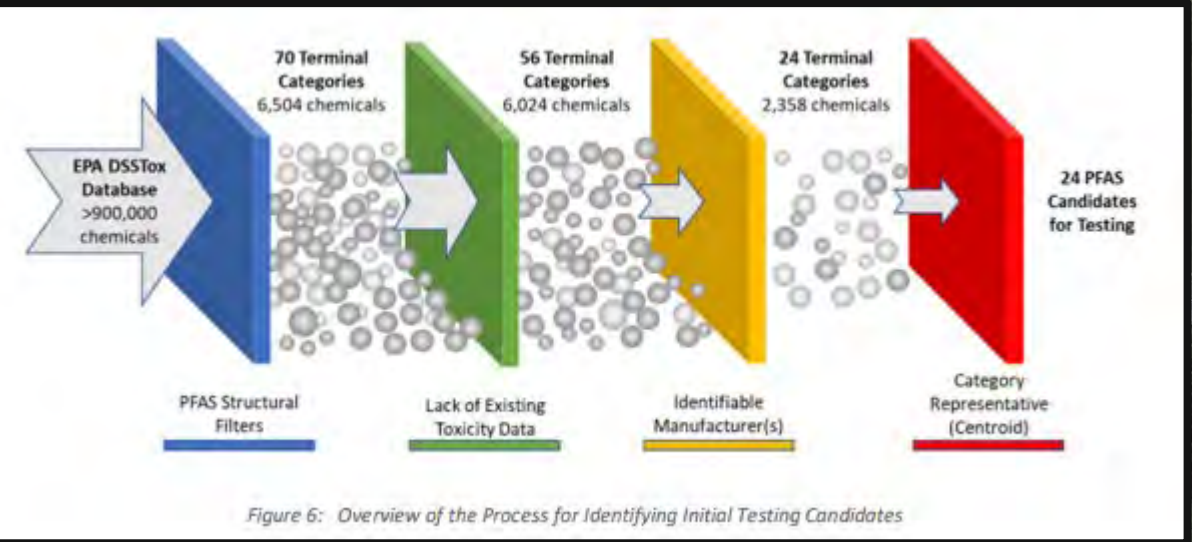
This document describes EPA's Strategy for identifying candidate PFAS for which EPA plans to require companies to perform testing using its TSCA section 4 authority. The information derived from testing will be used by the Agency to evaluate of toxicity and risks associated with this large class of chemicals, and could further inform the Agency's future research, monitoring, and regulatory efforts.

The five sets of structural filters identified a starting list of 6,504 PFAS used in the development of the Strategy.

EPA used a computer program to sort into 9 categories

- PFAS derivatives
- Perfluoroalkyl acids (PFAAs)
- Perfluoro PFAA precursors
- Non-PFAA perfluoroalkyls
- Perfluoroalkane sulfonamide (FASA)-based PFAA precursors
- Fluorotelomer-based PFAA precursors
- Silicon PFAS
- Side-chain Fluorinated Aromatic PFAS
- Other Aliphatic PFAS

Think Toxicity Testing by manufacturers.



Appendix A: List of PFAS Candidates for Testing

DTXSID_hyperlink	CASRN	Terminal Category	Candidate PFAS Name
DTXSID4059966	422-05-9	('Fluorotelomer PFAA precursors', 'It8')	2:1 Fluorotelomer alcohol
DTXSID0046511	306-94-5	('Non-PFAA perfluoroalkyls', 'gte8')	Perfluunafene
DTXSID9041811	115-25-3	('Non-PFAA perfluoroalkyls', 'volatile')	Octafluorocyclobutane
DTXSID7046548	355-42-0	('Non-PFAA perfluoroalkyls', 'volatile')	Perfluorohexane
DTXSID50880192	3330-14-1	('Others', 'gte8')	2H-Perfluoro-5-methyl-3,6-dioxanonane
DTXSID60862823	2062-98-8	('Others', 'It8')	Perfluoro(2-methyl-3-oxahexanoyl) fluoride
DTXSID0059879	355-80-6	('Others', 'It8')	1H,1H,5H-Perfluoropentanol
DTXSID2067327	27619-88-1	('Others', 'It8')	3,3,4,4,5,5,6,6-Nonafluorohexane-1-sulphonyl chloride
DTXSID0059927	376-90-9	('Others', 'It8')	Hexafluoroamylene glycol
DTXSID50862736	1682-78-6	('Others', 'volatile')	2,3,3,3-Tetrafluoro-2-(perfluoroethoxy)propanoyl fluoride
DTXSID0061826	1623-05-8	('Others', 'volatile')	Perfluoropropyl trifluorovinyl ether
DTXSID90505110	42532-60-5	('Others', 'volatile')	2,3,3,3-Tetrafluoro-2-(trifluoromethyl)propanenitrile
DTXSID30889183	475678-78-5	('Others, cyclic', 'gte8')	3-Methyl-3-[[[(3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]methyl]-oxetane
DTXSID30880413	38565-52-5	('Others, cyclic', 'gte8')	3-(Perfluorohexyl)-1,2-epoxypropane
DTXSID7059933	382-28-5	('Others, cyclic', 'It8')	Perfluoro(N-methylmorpholine)
DTXSID6029177	428-59-1	('Others, cyclic', 'volatile')	Trifluoro(trifluoromethyl)oxirane
DTXSID50880218	15290-77-4	('Others, cyclic', 'volatile')	1H,1H,2H-Perfluorocyclopentane
DTXSID5027140	307-35-7	('PFAA precursors', 'gte8')	Perfluorooctanesulfonyl fluoride
DTXSID70887648	69116-72-9	('PFAA precursors', 'It8')	Methyl perfluoro-3-[(perfluoro-3-oxopropan-2-yl)oxy]propanoate
DTXSID3044596	16090-14-5	('PFAA precursors', 'It8')	Perfluoro(4-methyl-3,6-dioxaoct-7-ene)sulfonyl fluoride
DTXSID0047583	423-39-2	('PFAA precursors', 'volatile')	Nonafluoro-1-iodobutane
DTXSID20861913	375-72-4	('PFAA precursors', 'volatile')	Perfluorobutanesulfonyl fluoride
DTXSID6021377	76-13-1	('PFAS derivatives', 'volatile')	1,1,2-Trichloro-1,2,2-trifluoroethane
DTXSID4041284	34455-29-3	('unclassified', 'gte8')	6:2 Fluorotelomer sulfonamide betaine

Office of Water

- Undertake nationwide monitoring for PFAS in drinking water under the fifth Unregulated Contaminant Monitoring Rule, significantly expanding the number of drinking water systems participating in the program, pending sufficient appropriations by Congress. (**[final rule published December 2021](#)**)
- Establish a national primary drinking water regulation for PFOA and PFOS that would set enforceable limits and require monitoring of public water supplies, while evaluating additional PFAS and groups of PFAS. (**[Science Advisory Board consultation ongoing; proposed rule fall 2022, final rule fall 2023](#)**)
- Publish the final toxicity assessment for GenX and five additional PFAS—PFBA, PFHxA, PFHxS, PFNA, and PFDA—to better understand their human health and environmental effects. (**[final GenX assessment published October 2021; additional assessments ongoing](#)**)
- Publish health advisories for GenX and PFBS based on final toxicity assessments to enable tribes, states, and local governments to inform the public and take appropriate action. (**[final health advisories published June 2022](#)**)
- Restrict PFAS discharges from industrial sources through a multi-faceted Effluent Limitations Guidelines program to proactively establish national technology-based regulatory limits, including progress on the nine industrial categories in the proposed PFAS Action Act of 2021. (**[expected 2022 and ongoing](#)**)

- Leverage National Pollutant Discharge Elimination System permitting to reduce PFAS discharges to waterways to reduce discharges of PFAS at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources. **(expected winter 2022)**
- Publish improved analytical methods to enable 40 PFAS to be monitored in eight different environmental matrices, and to update methods for drinking-water monitoring. **(expected fall 2022 and fall 2024)**
- Publish final recommended ambient water quality criteria for PFAS for aquatic life and human health to help Tribes and states develop standards, write permits, and assess cumulative impacts. **(expected winter 2022 and fall 2024)**
- Enhance data availability on PFAS in fish tissue to better assess the impacts of PFAS on the aquatic environment and to inform federal, state, and Tribal efforts to set PFAS fish advisories. **(expected summer 2022 and spring 2023)**
- Finalize risk assessment for PFOA and PFOS in biosolids that will serve as the basis for determining whether regulation of PFOA and PFOS in biosolids is appropriate. **(expected winter 2024)**

(FR Doc. 2021-27556 Filed 12-23-21; 8:45 am)
BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141
[EPA-HQ-OW-2020-0530; FRL-6791-03-OW]
RIN 2040-AF89

Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 5) for Public Water Systems and Announcement of Public Meetings
AGENCY: Environmental Protection Agency (EPA).
ACTION: Final rule and notice of public meetings.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is finalizing a Safe Drinking Water Act (SDWA) rule that requires certain public water systems (PWSs) to collect national occurrence data for 291 per- and polyfluoroalkyl substances (PFAS) and lithium. Subject to the availability of appropriations, EPA will include all systems serving 3,300 or more people and a representative sample of 600 systems serving 25 to 3,299 people. If EPA does not receive the appropriations needed for monitoring all of these systems in

available electronically through <https://www.regulations.gov>.

FOR FURTHER INFORMATION CONTACT: Brenda D. Bowden, Standards and Risk Management Division (SRMD), Office of Ground Water and Drinking Water (CGWDW) MS 140, Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268; telephone number: (513) 569-7961; email address: brenda.l.zawada@epa.gov or Melissa Simic, SRMD, CGWDW MS 140, Environmental Protection Agency, 26 West Martin Luther King Drive, Cincinnati, Ohio 45268; telephone number: (513) 569-7864; email address: melissa.simic@epa.gov. For general information, visit the Ground Water and Drinking Water web page at: <https://www.epa.gov/ground-water-and-drinking-water>.

SUPPLEMENTARY INFORMATION:

Table of Contents

1. Summary Information
 - A. Purpose of the Regulatory Action
 1. What action is EPA taking?
 2. Does this action apply to me?
 3. What is EPA's authority for taking this action?
 4. What is the applicability date?
- B. Summary of the Regulatory Action
- C. Economic Analysis
 1. What is the estimated cost of this action?
 2. What are the benefits of this action?
- D. Public Participation

- IV. Description of Final Rule and Summary of Responses to Public Comments
 - A. What contaminants must be monitored under UCMR 5?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - a. Aggregate PFAS Measure
 - b. Legionella Pneumophila
 - c. Halocarbonitriles
 - d. 1,1,3-Trichloropropane
 - B. What is the UCMR 5 sampling design?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - a. What is the sampling frequency and timing?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - B. Where are the sampling locations and what is representative monitoring?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - C. How long do laboratories and PWSs have to report data?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - D. What are the reporting requirements for UCMR 5?
 1. This Final Rule
 2. Summary of Major Comments and EPA Responses
 - E. Data Elements
 - F. Reporting State Data
 - G. What are the UCMR 5 Minimum Reporting Levels (MRLs) and how were

Federal Register / Vol. 86, No. 245 / Monday, December 27, 2021 / Rules and Regulations 73131

(FR Doc. 2021-27556 Filed 12-23-21; 8:45 am)

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141

[EPA-HQ-OW-2020-0530; FRL-6791-03-OW]

RIN 2040-AF89

Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 5) for Public Water Systems and Announcement of Public Meetings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule and notice of public meetings.

SUMMARY: The U.S. Environmental

available

www.

FOR F

Brenda

Manag

Group

(OGW

Protec

Luthe

45268

7961;

[epa.g](https://www.epa.gov)

OGW

Protec

Luthe

45268

7864;

[epa.g](https://www.epa.gov)

the G

web p

[ground](https://www.epa.gov/ground-water-and-drinking-water)

SUPPL

Exhibit 2: Timeline of UCMR 5 Activities

2022	2023	2024	2025	2026
<p>Pre-sampling Activity by EPA, States¹</p> <ul style="list-style-type: none"> EPA manages Laboratory Approval Program EPA organizes Partnership Agreements and State Monitoring Plans EPA/States notify affected PWSs of UCMR 5 monitoring plan following final rule publication EPA/States send SDWARS registrations EPA/States review GWRMP submittals EPA conducts outreach/trainings EPA confirms sample collection by mid-2022 with small systems scheduled for 2023 monitoring. <p>Pre-sampling Activity by PWSs</p> <ul style="list-style-type: none"> Register for a SDWARS account and provide sampling location inventory and contact information 	<p>← Sampling Period →</p>			<p>Post-sampling Activity</p> <p>PWSs, Laboratories</p> <ul style="list-style-type: none"> Complete resampling, as needed Conclude data reporting <p>EPA</p> <ul style="list-style-type: none"> Complete upload of UCMR 5 data to NCOD
	<p>EPA, State¹ Implementation Activities</p> <ul style="list-style-type: none"> EPA, State provide compliance assistance EPA, State implement small system monitoring EPA posts data quarterly to NCOD EPA confirms sample collection by mid-2023 (for small systems scheduled for 2024 monitoring) and by mid-2024 (for small systems scheduled for 2025 monitoring) <p>PWS Sample Collection; Laboratory Analysis; Reporting (~1/3 in each year)</p> <ul style="list-style-type: none"> All large systems serving more than 10,000 people All small systems serving between 3,300 and 10,000 people, if confirmed by EPA Up to 800 small systems serving between 25 and 3,299 people, as confirmed by EPA 			

¹ State participation is defined in voluntary Partnership Agreements

UCMR 5 Rulemaking

EXHIBIT 4—UCMR 5 ANALYTES

Twenty-five Per- and Polyfluoroalkyl Substances (PFAS) using EPA Method 533 (SPE LC/MS/MS): ¹	
11-chloroicosaffluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	perfluorodecanoic acid (PFDA).
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	perfluorododecanoic acid (PFDoA).
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	perfluoroheptanesulfonic acid (PFHpS).
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	perfluoroheptanoic acid (PFHpA).
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	perfluorohexanesulfonic acid (PFHxS).
9-chlorohexadecafluoro-3-oxanon-1-sulfonic acid (9Cl-PF3ONS)	perfluorohexanoic acid (PFHxA).
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	perfluorononanoic acid (PFNA).
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	perfluorooctanesulfonic acid (PFOS).
perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	perfluorooctanoic acid (PFOA).
perfluoro-3-methoxypropanoic acid (PFMPA)	perfluorohexanesulfonic acid (PFHxS).
perfluoro-4-methoxybutanoic acid (PFMBA)	perfluoropentanoic acid (PFPeA).
perfluorobutanesulfonic acid (PFBS)	perfluoropentanoic acid (PFPeA).
perfluorobutanoic acid (PFBA).	perfluoroundecanoic acid (PFUnA).
Four Per- and Polyfluoroalkyl Substances (PFAS) using EPA Method 537.1 (SPE LC/MS/MS): ²	
n-ethyl perfluorooctanesulfonamidoacetic acid (NEIFOSAA)	perfluorotetradecanoic acid (PFTTA).
n-methyl perfluorooctanesulfonamidoacetic acid (NMEFOSAA)	perfluorotridecanoic acid (PFTTA).
One Metal/Pharmaceutical using EPA Method 200.7 (ICP-AES) ³ or alternate SM ⁴ or ASTM: ⁵	
lithium.	

¹ EPA Method 533 (Solid phase extraction (SPE) liquid chromatography/tandem mass spectrometry (LC/MS/MS)) (USEPA, 2019b).
² EPA Method 537.1 Version 2.0 (Solid phase extraction (SPE) liquid chromatography/tandem mass spectrometry (LC/MS/MS)) (USEPA, 2020).
³ EPA Method 200.7 (Inductively coupled plasma-atomic emission spectrometry (ICP-AES)) (USEPA, 1994).
⁴ Standard Methods (SM) 3120 B (SM, 2017) or SM 3120 B-99 (SM Online, 1999).
⁵ ASTM International (ASTM) D1976-20 (ASTM, 2020).

Fact Sheet: Human Health Toxicity Assessment for GenX Chemicals

Summary

EPA is publishing the final version of its human health toxicity assessment for hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt, referred to as "GenX chemicals." The assessment provides hazard identification, dose-response information, and derives toxicity values called oral reference doses (RfDs) for chronic and subchronic exposures to GenX chemicals. The assessment also increases the available federal health information about the large chemical class of per- and polyfluoroalkyl substances (PFAS) of which GenX chemicals are a part and is a key step toward EPA developing a national drinking water health advisory for GenX chemicals, which the agency committed to publish in Spring 2022. The agency previously published health assessments for three PFAS: perfluorooctanoic acid (PFOA; 2016), perfluorooctane sulfate (PFOS; 2016), and perfluorobutane sulfonic acid and related compound potassium perfluorobutane sulfonate (PFBS; 2021). Industry developed GenX chemicals to replace PFOA, a legacy PFAS. Policy makers can use the GenX chemicals toxicity assessment along with exposure information and other important considerations to determine if, and when, it is appropriate to take action to reduce exposure to GenX chemicals.

Background

What are PFAS?

PFAS are synthetic chemicals that have been manufactured and used by many different types of industries since the 1940s. PFAS are synthesized for many different uses including firefighting foams, coatings for clothes and furniture, and food contact substances. PFAS are also used in industrial processes and applications, such as manufacturing other chemicals and products. There are thousands of different PFAS, some of which have been more widely used and studied than others. PFOA and PFOS, for example, are two of the most widely used and studied chemicals in the PFAS group. These have been replaced in the United States with other PFAS, such as GenX chemicals, in recent years. Although PFAS chemical compositions vary, one common characteristic is that they break down very slowly and can accumulate over time in people, animals, and the environment. Because of their persistence, PFAS are sometimes referred to as "forever chemicals."

What are GenX Chemicals?

GenX is a trade name for a processing aid technology used to make high-performance fluoropolymers without the use of PFOA. HFPO dimer acid and its ammonium salt are the major chemicals associated with the GenX processing aid technology. PFOA has eight carbon atoms and is considered a "longer chain" PFAS while GenX chemicals have six carbon atoms and are considered "shorter chain." Because GenX chemicals can be used as a replacement for PFOA, they may be used in a similar fashion in the manufacture of the same or similar

EPA published human health toxicity assessment for GenX Chemicals which are hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt

Human Health Toxicity Values for

Hexafluoropropylene Oxide (HFPO) Dimer Acid and Its Ammonium Salt (CASRN 13252-13-6 and CASRN 62037-80-3)

Also Known as "GenX Chemicals"

EPA Announces New Drinking Water Health Advisories for PFAS Chemicals, \$1 Billion in Bipartisan Infrastructure Law Funding to Strengthen Health Protections

Agency establishes new health advisories for GenX and PFBS and lowers health advisories for PFOA and PFOS

June 15, 2022

Contact Information

EPA Press Office (press@epa.gov)

WASHINGTON (June 15, 2022) Today, the U.S. Environmental Protection Agency (EPA) released four drinking water health advisories for per- and polyfluoroalkyl substances (PFAS) in the latest action under President Biden's action plan to deliver clean water and Administrator Regan's [PFAS Strategic Roadmap](#). EPA also announced that it is inviting states and territories to apply for \$1 billion – the first of \$5 billion in Bipartisan Infrastructure Law grant funding – to address PFAS and other emerging contaminants in drinking water, specifically in small or disadvantaged communities. These actions build on EPA's progress to safeguard communities from PFAS pollution and scientifically inform upcoming efforts, including EPA's forthcoming proposed National Primary Drinking Water Regulation for PFOA and PFOS, which EPA will release in the fall of 2022.

"People on the front-lines of PFAS contamination have suffered for far too long. That's why EPA is taking aggressive action as part of a whole-of-government approach to prevent these chemicals from entering the environment and to help protect concerned families from this pervasive challenge," said **EPA Administrator Michael S. Regan**. "Thanks to President Biden's Bipartisan Infrastructure Law, we are also investing \$1 billion to reduce PFAS and other emerging contaminants in drinking water."

\$1 Billion in Bipartisan Infrastructure Law Funding

As part of a government-wide effort to confront PFAS pollution, EPA is making [available \\$1 billion in grant funding](#) through President Biden's Bipartisan Infrastructure Law to help communities that are on the frontlines of PFAS contamination, the first of \$5 billion through the Law that can be used to reduce PFAS in drinking water in communities facing disproportionate impacts. These funds can be used in small or disadvantaged communities to address emerging contaminants like PFAS in drinking water through actions such as technical assistance, water quality testing, contractor training, and installation of centralized treatment technologies and systems.

EPA will be reaching out to states and territories with information on how to submit their letter of intent to participate in this new grant program. EPA will also consult with Tribes and Alaskan Native Villages regarding the Tribal set-aside for this grant program. This funding complements [\\$3.4 billion in funding](#) that is going through the Drinking Water State Revolving Funds (SRFs) and \$3.2 billion through the Clean Water SRFs that can also be used to address PFAS in water this year.

PFOS. The interim updated health advisories for PFOA and PFOS are 0.004 ppt and 0.02 ppt, respectively. The interim updated health advisories replace the 2016 final health advisories for PFOA and PFOS which were both set at 70 ppt. EPA is reviewing and will

Comments: Comments are invited on: (1) whether the collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's estimate of the burden and cost of the collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collection; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Dated: June 14, 2022.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2022-13220 Filed 6-17-22; 8:45 am]

BILLING CODE 6717-01-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report Filings:

Filings Instituting Proceedings

Docket Numbers: RP22-979-000.

Applicants: WBI Energy Transmission, Inc.

¹ Burden is defined as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a federal agency. For further explanation of what is included in the information collection burden, refer to 5 CFR 1320.3.

Description: § 4(d) Rate Filing: 2022 Negotiated and Non-Conforming SA Blue Flint to be effective 7/15/2022.

Filed Date: 6/14/22.

Accession Number: 20220614-5030.

Comment Date: 5 p.m. ET 6/27/22.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

The filings are accessible in the Commission's eLibrary system (<https://elibrary.ferc.gov/idms/search/fercgensearch.asp>) by querying the docket number.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <http://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208-3676 (toll free). For TTY, call (202) 502-8659.

Dated: June 14, 2022.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2022-13221 Filed 6-17-22; 8:45 am]

BILLING CODE 6717-01-P

² Annual public reporting burden based on respondents over the last three-year period.
³ The estimates for cost per response are derived using the formula: Average Burden Hours per Response * \$7.00 per hour = Average Cost per Response. The hourly cost figure comes from the

ENVIRONMENTAL PROTECTION AGENCY

[FRL 9855-01-OW]

Lifetime Drinking Water Health Advisories for Four Perfluoroalkyl Substances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of availability.

SUMMARY: The Environmental Protection Agency (EPA) announces the release of health advisories for four perfluoroalkyl substances (PFAS), including interim updated lifetime drinking water health advisories for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS), and final health advisories for hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt (together referred to as "GenX chemicals") and perfluorobutane sulfonic acid and its related compound potassium perfluorobutane sulfonate (together referred to as "PFBS"). EPA's health advisories, which identify the concentration of chemicals in drinking water at or below which adverse health effects are not anticipated to occur, are: 0.004 parts per trillion (ppt) for PFOA, 0.02 ppt for PFOS, 10 ppt for GenX chemicals, and 2,000 ppt for PFBS. Health advisories are non-regulatory and reflect EPA's assessment of the best available peer-reviewed science. The interim updated health advisories for PFOA and PFOS supersede EPA's 2016 health advisories for PFOA and PFOS.

FERC average salary plus benefits of \$100,703 per year (or \$87.20/hour). These estimates were updated in May 2021. This figure is being used because the staff thinks industry is similarly situated in terms of average hourly cost.

PFAS: Regulatory Overview

Contaminants of Emerging Concern Steering Committee

NEW

EPA Lifetime Drinking Water Health Advisories
(released June 15, 2022)

- Interim drinking water health advisories for PFOA and PFOS that replace the 2016 EPA LHAs
- Final health advisories for PFBS and HFPO-DA (i.e. "GenX").

Health Advisories are not enforceable criteria and do not create requirements for cleanup actions under CERCLA & RCRA.

Office of Land and Emergency Management

- Propose to designate certain PFAS as CERCLA hazardous substances to require reporting of PFOA and PFAS releases, enhance the availability of data, and ensure agencies can recover cleanup costs. ([proposed rule announced August 2022](#), **final rule expected summer 2023**)
- Issue advance notice of proposed rulemaking on various PFAS under CERCLA to seek public input on whether to similarly seek CERCLA designation of other PFAS. (**expected Fall 2022**)
- Issue updated guidance on destroying and disposing PFAS to reflect public comments on interim guidance and to reflect newly published research results. (**expected fall 2023**)
- Initiate two rulemakings under the Resource Conservation and Recovery Act to address PFAS (**initiated October 2021**, [read the news release](#))

EPA Proposes Designating Certain PFAS Chemicals as Hazardous Substances Under Superfund to Protect People's Health

Designating PFOA and PFOS under CERCLA would improve transparency, accountability, and deliver on Administrator Regan's PFAS Strategic Roadmap

August 26, 2022

Contact Information

EPA Press Office (press@epa.gov)

WASHINGTON – Following through on its commitment to protect public health, the U.S. Environmental Protection Agency is proposing to designate two of the most common PFAS chemicals as CERCLA hazardous substances. This action is part of the agency's Comprehensive Environmental Response

Proposed Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances

On this page:

- [Rule Summary](#)
- [Rule History](#)
- [Additional Resources](#)

Rule Summary

EPA is proposing to designate two per- and polyfluoroalkyl substances (PFAS) -- perfluorooctanoic acid (PFOA) and

Basic Information

Legal Authorities

- [42 U.S.C §9602](#) [EXIT](#)

PRE-PUBLICATION NOTICE

On Thursday, August 25, 2022, Michael S. Regan, the EPA Administrator, signed the following document:

Action: Proposed Rule.

Title: Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances.

FRL #: 7204-02-OLEM

Docket ID #: EPA-HQ-OLEM-2019-0341

EPA is submitting this document for publication in the *Federal Register* (FR). EPA is providing this document solely for the convenience of interested parties. It is not the official version of the document for purposes of public notice and comment under the Administrative Procedure Act. This document is not disseminated for purposes of EPA's Information Quality Guidelines and does not represent an Agency determination or policy. While we have taken steps to ensure the accuracy of this Internet version of the document that was signed, the official version will publish in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in the docket identified above.

Once the official version of this document is published in the *Federal Register*, this version will be removed from the Internet and replaced with a link to the official version. At that time, you will also be able to access the online docket for this *Federal Register* document at <https://www.regulations.gov/>

For further information about the docket and, if applicable, instructions for commenting, please consult the ADDRESSES section in the front of the *Federal Register* document.



State of New Mexico

Michelle Lujan Grisham
Governor

June 23, 2021

Dear Administrator Regan:

Attached is my petition to the Environmental Protection Agency requesting a timely listing of per and polyfluorinated substances (PFAS) as a class of chemicals within Subpart C of the Resource Conservation and Recovery Act (RCRA), or in the alternative, list individual PFAS chemicals under RCRA. PFAS chemicals present an imminent and substantial endangerment to human health and the environment. I submit this petition pursuant to 42 U.S.C. § 6921(c), and I look forward to your response on or before September 21, 2021.

Thank you for your consideration of this petition and prompt action to protect the people of my state and the United States as a whole by providing a uniform regulatory process for PFAS regulation.

If your staff have any questions regarding this petition, please contact James Kenney, Cabinet Secretary, New Mexico Environment Department, at james.kenney@state.nm.us or (505) 470-6161.

Sincerely,

Governor Michelle Lujan Grisham

cc: James Kenney, Cabinet Secretary, New Mexico Environment Department

State Capitol • Room 400 • Santa Fe, New Mexico 87501 • 505-476-2200

EPA Responds to New Mexico Governor and Acts to Address PFAS Under Hazardous Waste Law

October 26, 2021

Contact Information

EPA Press Office (press@epa.gov)

WASHINGTON – Today, the U.S. Environmental Protection Agency (EPA) announced it is acting upon a petition from Governor Michelle Lujan Grisham of New Mexico to tackle PFAS contamination under the Resource Conservation and Recovery Act (RCRA). In responding to the petition, EPA outlined plans to initiate the rulemaking process for two new actions under the hazardous waste law, reflecting the agency’s focus on using best available science and leveraging authorities to combat this shared challenge.

“We can only make progress for communities suffering from PFAS pollution if we work collaboratively across levels of government and harness our collective resources and authority,” **said EPA Administrator Michael S. Regan**. “Today, we are taking important steps toward developing new scientific approaches to confront these dangerous chemicals and strengthening the ability to clean up PFAS contamination. I thank Governor Lujan Grisham for her engagement and leadership, which will lead to better protections for people in New Mexico and across the country.”

“I applaud Administrator Regan for empowering states to follow New Mexico’s lead and hold PFAS polluters accountable,” **said Governor Lujan Grisham**. “By taking an urgent and science-based approach to this issue, we’re helping to protect communities in New Mexico and around the country.”

Office of Research and Development

- Develop and validate methods to detect and measure PFAS in the environment, including additional targeted methods for detecting and measuring specific PFAS, non-targeted methods for identifying unknown PFAS in the environment, and exploring “total PFAS” methods. *(ongoing)*
- Advance the science to assess human health and environmental risks from PFAS by developing human health toxicity assessments under EPA’s Integrated Risk Information System program; by compiling and summarizing available and relevant scientific information; by identifying PFAS sources, transport, and exposure pathways; and by characterizing how exposure to PFAS may contribute to cumulative impacts on communities. *(ongoing)*
- Evaluate and develop technologies for reducing PFAS in the environment to inform decisions on drinking water and wastewater treatment, contaminated site cleanup and remediation, air emission controls, and end-of-life materials management. *(ongoing)*

Cross-Program

- Engage directly with affected communities in every EPA region to hear how PFAS contamination impacts their lives and livelihoods, building on a recommendation from EPA's National Environmental Justice Advisory Council. **(ongoing)**
- Use enforcement tools to better identify and address PFAS releases at facilities, as appropriate, to require actions by responsible parties, to limit future releases, and to address existing contamination. **(ongoing)**
- Accelerate public health protections by identifying PFAS categories—based on toxicological data for hazard assessment and decision-making, and based on removal technologies. **(ongoing)**
- Establish a PFAS Voluntary Stewardship Program to challenge industry to go above and beyond regulatory or compliance requirements to reduce overall releases of PFAS into the environment. **(expected spring 2022)**
- Educate the public about the risks of PFAS to help the public understand what PFAS are, how they are used, and how they can impact their health. **(ongoing)**
- Issue an annual public report on progress towards PFAS commitments included in this roadmap, as well as future actions the Agency may take. **(winter 2022 and ongoing)**

National Defense Authorization Act

SEC. 7361. PFAS DESTRUCTION AND DISPOSAL GUIDANCE.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Administrator shall publish interim guidance on the destruction and disposal of perfluoroalkyl and polyfluoroalkyl substances and materials containing perfluoroalkyl and polyfluoroalkyl substances, including—

- (1) aqueous film-forming foam;
- (2) soil and biosolids;
- (3) textiles, other than consumer goods, treated with perfluoroalkyl and polyfluoroalkyl substances;
- (4) spent filters, membranes, resins, granular carbon, and other waste from water treatment;
- (5) landfill leachate containing perfluoroalkyl and polyfluoroalkyl substances; and
- (6) solid, liquid, or gas waste streams containing perfluoroalkyl and polyfluoroalkyl substances from facilities manufacturing or using perfluoroalkyl and polyfluoroalkyl substances.

(b) CONSIDERATIONS; INCLUSIONS.—The interim guidance under subsection (a) shall—

- (1) take into consideration—
 - (A) the potential for releases of perfluoroalkyl and polyfluoroalkyl substances during destruction or disposal, including through volatilization, air dispersion, or leachate; and
 - (B) potentially vulnerable populations living near likely destruction or disposal sites; and
- (2) provide guidance on testing and monitoring air, effluent, and soil near potential destruction or disposal sites for releases described in paragraph (1)(A).

(c) REVISIONS.—The Administrator shall publish revisions to the interim guidance under subsection (a) as the Administrator S. 1790—1093 determines to be appropriate, but not less frequently than once every 3 years.

Figure 1-1. FY 2020 NDAA Section 7361.



In Summary

PFAS Compounds CAS Number	Common Name	Abbreviation	Toxic Release Inventory (TRI) PFAS Compounds 2021	UCMR-5	Method 533 (drinking water)	Method 537.1 (drinking water; v2)	EPA Cleanup Guides- RMLs/RSLs	National PFAS Testing Strategy List Oct. 2021	Human Health Toxicity Values April 21	Health Advisory June 22	Proposed Designation Haz Substance August 25, 2022	Total
1763-23-1	Perfluorooctane sulfonic acid	PFOS	1	1	1	1	1			1	1	7
335-67-1	Perfluorooctanoic acid	PFOA	1	1	1	1	1			1	1	7
13252-13-6	Hexafluoropropylene oxide dimer acid	HFPO and GenX	1	1	1	1	1			1		6
355-46-4	Perfluorohexanesulfonic acid		1	1	1	1	1	1				6
375-73-5	Perfluorobutane sulfonic acid	PFBS	1	1	1	1	1		1			6
375-95-1	Perfluorononanoic acid		1	1	1	1	1					5
307-55-1	Perfluorododecanoic acid		1	1	1	1						4
335-76-2	Perfluorodecanoic acid		1	1	1	1						4
29420-49-3	Potassium perfluorobutane sulfonate	PFBS related salt	1				1		1			3
376-06-7	Perfluorotetradecanoic acid		1	1		1						3
62037-80-3	Hexafluoropropylene oxide dimer acid ammonium salt	HFPO ammonia salt or GenX	1				1			1		3
2058-94-8	Perfluoroundecanoic acid	PFUnA		1	1	1						3
307-24-4	Perfluorohexanoic acid	PFHxA		1	1	1						3
375-85-9	Perfluoroheptanoic acid	PFHpA		1	1	1						3
756426-58-1	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	9Cl-PF3ONS		1	1	1						3
763051-92-9	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	11Cl-PF3OUdS		1	1	1						3
919005-14-4	4,8-Dioxa-3H-perfluorononanoic acid	ADONA		1	1	1						3
2795-39-3	Potassium perfluorooctane		1				1					2
307-35-7	Perfluorooctylsulfonyl fluoride		1					1				2
45187-15-3	Perfluorobutanesulfonate		1				1					2
113507-82-7	Perfluoro (2-ethoxyethane) sulfonic acid	PFEESA		1	1							2
151772-58-6	Nonafluoro-3, 6-dioxaheptanoic acid	NFDHA		1	1							2
2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA		1		1						2
2706-90-3	Perfluoropentanoic acid	PFPeA		1	1							2
2706-91-4	Perfluoropentanesulfonic acid	PFPeS		1	1							2
27619-97-2	1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	6:2FTS		1	1							2
2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid	NETFOSAA		1		1						2
375-22-4	Perfluorobutanoic acid	PFBA		1	1							2
375-92-8	Perfluoroheptanesulfonic acid	PFHpS		1	1							2
377-73-1	Perfluoro-3-methoxypropanoic acid	PFMPA		1	1							2
39108-34-4	1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	8:2FTS		1	1							2
72629-94-8	Perfluorotridecanoic acid	PFTTrDA		1		1						2
757124-72-4	1H,1H, 2H, 2H-Perfluorohexane sulfonic acid	4:2FTS		1	1							2
863090-89-5	Perfluoro-4-methoxybutanoic acid	PFMBA		1	1							2

In Summary

Number of PFAS Compounds Out of Over 6,000	Number of "Hits" Out of Possible 9
2	7
3	6
1	5
2	4
9	3
17	2
193	1



And Now
States....



Search



OUR VISION

STATES IN THE LEAD

TOXIC CHEMICALS

BILL TRACKER

SOLUTIONS

NEWS

TAKE ACTION

[Home](#) > [Toxic Chemicals](#) > [PFAS Chemicals](#)

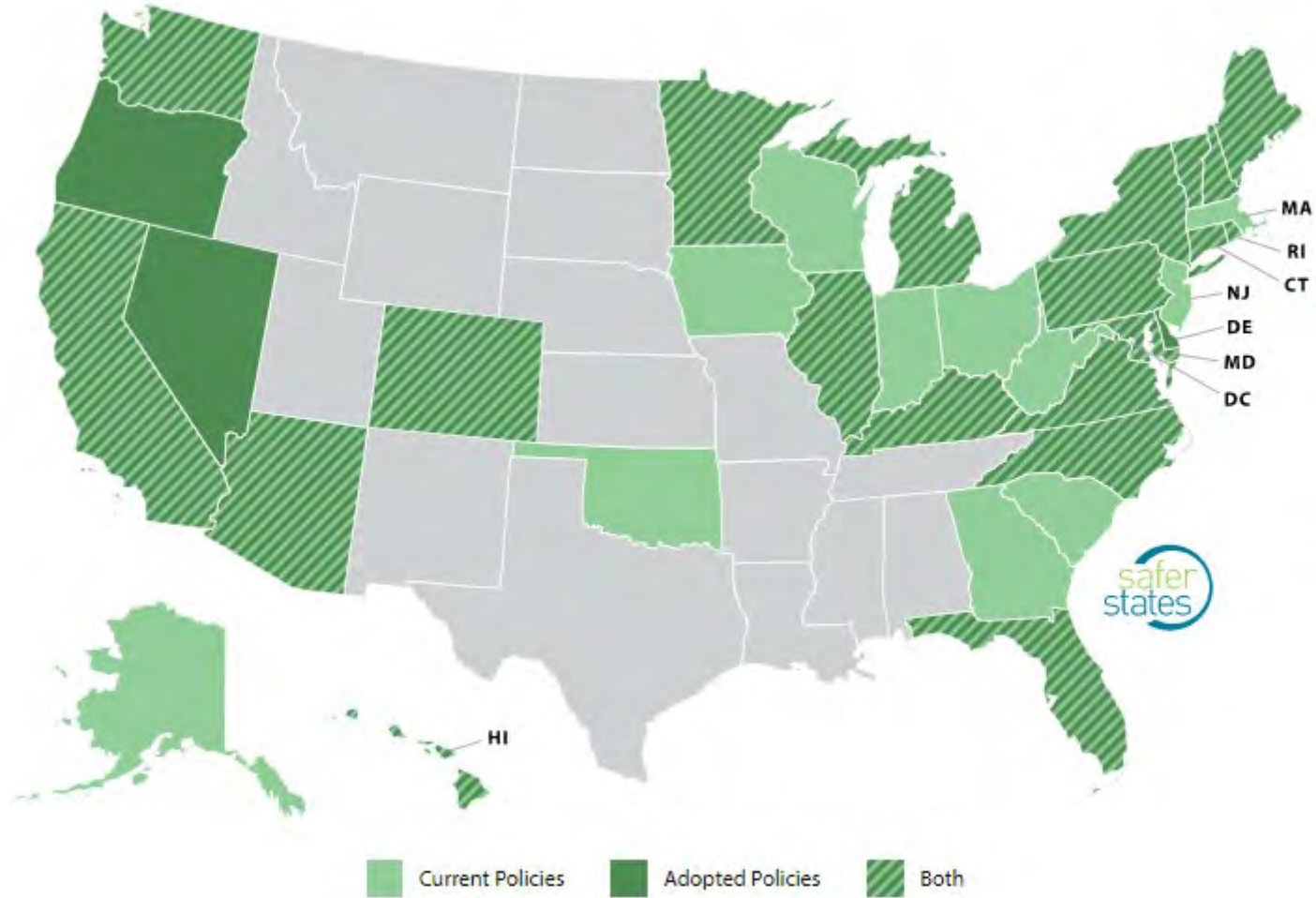


PFAS

Safer States is at the forefront of a state-driven national movement to eliminate exposures to PFAS chemicals. We coordinate a large and diverse coalition of advocates, policymakers, scientists, and representatives from some of the most impacted communities to influence public policy, corporate practices, and end-of-life management decisions on products containing these toxic chemicals. Our goal is to turn off the tap on over [12,000+](#) chemicals in this class, drive cleanup of and protections for impacted communities and move towards safer chemistries that ensure safe food, air and drinking water for all. Check out our [PFAS Action Factsheet](#) to see all of the legislative and regulatory action that state governments are taking to phase out PFAS in products and to prevent contamination in favor of safer alternatives.



203 current policies in 31 states
101 adopted policies in 23 states



Policy Details for PFAS

Source: [Safer States :: PFAS](#)

State Drinking Water Limits

Many states have begun the process of regulating PFAS in drinking water themselves and have adopted enforceable standards or Maximum Contaminant Levels (MCLs) for PFAS in their state. States with enforceable drinking water standards include ME, MA, MI, NH, NJ, NY, and VT. Both DE and VA are in the process of establishing enforceable drinking water standards. FL is on track to adopt its own standards if the EPA has not finalized its standards for PFAS in drinking water by 2025.

Other states have adopted guidance levels, notification levels, and/or health advisories for PFAS in drinking water. These states include AK, CA, CO, CT, IL, MD, MN, NC, NM, OH, OR, and WA.

States Regulating PFAS in Drinking Water



State Attorney General PFAS Lawsuits

Several states are pursuing litigation against the manufacturers of PFAS chemicals for contaminating water supplies and other natural resources. These states include AK, CO, DE (settled), MA, ME, MI, MN (settled), NC, NH, NJ, NM, NY, OH, VT, and WI. We anticipate these types of lawsuits to become more numerous as PFAS damages continue to crop up.

State Attorney General PFAS Lawsuits



Bill Tracker for PFAS

Current Policy

Alaska

SB 121: Requires responsible parties to test for perfluoroalkyl and polyfluoroalkyl substances in all drinking water when a PFAS substance is released in the area of the water supply. Allows state fire marshall to adopt regulations requiring the use of alternative PFAS-free firefighting foam. Establishes MCLs for PFAS in drinking water.

Alaska

HB 171: Requires responsible parties to test for perfluoroalkyl and polyfluoroalkyl substances in all drinking water when a PFAS substance is released in the area of the water supply. Allows state fire marshall to adopt regulations requiring the use of alternative PFAS-free firefighting foam. Establishes MCLs for PFAS in drinking water.

Arizona

HB 2461 : Establishes drinking water aquifer water quality standards for pollutants such as PFAS.

Arizona

SB 1283:

Indiana

HB 1184: Requires the state department of health to establish state maximum contaminant levels for PFAS in water provided by public water systems.

Indiana

HB 1276: Establishes the PFAS chemical blood testing program under the department of health for the purpose of blood testing certain individuals for a higher concentration of PFAS chemicals to study the health effects of a higher concentration of PFAS chemicals in an individual's blood.

A vibrant rainbow arches across a dramatic sky, transitioning from a soft orange glow on the left to a deep, dark purple on the right. The scene is set over a residential neighborhood with bare trees and a utility pole visible in the foreground. The overall mood is serene and hopeful.

**What Do You
Think?**