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September 4, 2018

TO: Members, Subcommittee on Environment

FROM: Committee Majority Staff

RE: Hearing entitled “Perfluorinated Chemicals in the Environment: An Update on the Response to Contamination and Challenges Presented”

I. INTRODUCTION

The Subcommittee on Environment will hold a hearing on Thursday, September 6, 2018, at 10 a.m. in 2123 Rayburn House Office Building. The hearing is entitled “Perfluorinated Chemicals in the Environment: An Update on the Response to Contamination and Challenges Presented.”

II. WITNESSES

Panel 1

- **Dr. Peter Grevatt**, Director, Office of Groundwater and Drinking Water, U.S. Environmental Protection Agency (EPA);
- **Ms. Maureen Sullivan**, Deputy Assistant Secretary of Defense for Environment, U.S. Department of Defense;

Panel 2

- **Ms. Lisa Daniels**, Director, Bureau of Safe Drinking Water, Pennsylvania Department of Environmental Protection *on behalf of the Association of State Drinking Water Administrators*;
- **Mr. Sandeep Burman**, Manager, Site Remediation and Redevelopment, Minnesota Pollution Control Agency *on behalf of the Association of State and Territorial Solid Waste Management Officials*;
- **Ms. Carol Isaacs**, Director, Michigan PFAS Action Response Team, Executive Office of Governor Rick Snyder;
- **Mr. Erik D. Olson**, Senior Director, Health and Food, Healthy People & Thriving Communities Program, Natural Resources Defense Council; and
- **Ms. Emily Donovan**, Co-Founder, Clean Cape Fear.

III. BACKGROUND

Per- and polyfluoroalkyl substances (PFAS), also known as highly fluorinated chemicals, are a large group of man-made chemicals that include perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and GenX chemicals. PFAS have been manufactured and used in a variety of industries around the globe; the earliest usage of PFAS in the United States dates to the 1940s.¹ They were used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials resistant to water, grease or stains. In

¹ <https://www.epa.gov/pfas/basic-information-pfas>

addition, PFAS are also used for firefighting at airfields and in several industrial processes.² Today, certain PFAS, like PFOA and PFOS, are no longer manufactured in the United States.

PFOA and PFOS are made up of “chains” of eight carbon atoms that are attached to fluorine and other atoms. According to EPA, replacement chemicals, like GenX, tend to have fewer carbon atoms in the chain, but have many similar physical and chemical properties as their predecessors.³ EPA’s website states that there are “thousands of reported compounds” in the PFAS class, and some PFAS do not break down over time and can build up in the environment and in the human body.⁴⁵

Though the concentration may vary, some people might be exposed to PFAS contamination through their drinking water, air or food because PFAS entered the environment in one of the following ways:

- Direct release of PFAS or PFAS products into the environment from either the use of aqueous film forming foam (AFFF) – as a fire suppressant – in training and emergency response activities or a release from industrial facility⁶;
- Chrome plating and etching facilities that use PFAS⁷;
- The normal use, biodegradation, or disposal of consumer products that contain PFAS⁸;

In addition, other sources of PFAS in the environment include:

- landfills and leachates from disposal of consumer and industrial products containing PFAS⁹; and
- Wastewater treatment effluent and land application of biosolids.¹⁰

While there is evidence that exposure to certain PFAS can lead to adverse health outcomes in humans, there is still very little risk information on many of these chemicals.¹¹ EPA researchers note that one of the biggest challenges in understanding potential hazards of exposure to PFAS is the lack of toxicity information.¹² PFOA and PFOS, though, have been the most extensively produced and studied of the PFAS chemicals.¹³ Studies indicate that exposure to PFOA and PFOS over certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breast-fed infants (e.g., low birth weight, accelerated puberty, skeletal variations), cancer (e.g., testicular, kidney), liver effects (e.g., tissue damage), immune effects (e.g., antibody production and immunity), and other effects (e.g., cholesterol changes).¹⁴ In

² <https://www.gpo.gov/fdsys/pkg/FR-2016-05-25/pdf/2016-12361.pdf>

³ <https://www.epa.gov/pfas/basic-information-pfas>

⁴ https://www.epa.gov/sites/production/files/2018-03/documents/pfasv15_2pg_0.pdf

⁵ <https://www.epa.gov/sciencematters/epa-toxicologists-focus-innovative-research-pfas-compounds>

⁶ EPA Activities on Per- and Polyfluoroalkyl Substances (PFAS), EPA Briefing for House Committee on Energy & Commerce, June 6, 2018, slide #6.

⁷ Ibid.

⁸ <https://www.epa.gov/pfas/basic-information-pfas>

⁹ EPA Activities on Per- and Polyfluoroalkyl Substances (PFAS), EPA Briefing for House Committee on Energy & Commerce, June 6, 2018, slide #6.

¹⁰ Ibid.

¹¹ <https://www.epa.gov/sciencematters/epa-toxicologists-focus-innovative-research-pfas-compounds>

¹² Ibid.

¹³ <https://www.gpo.gov/fdsys/pkg/FR-2016-05-25/pdf/2016-12361.pdf>

¹⁴ Ibid.

contrast, a December 2015 study summarizing the conclusions of the comprehensive epidemic literature and representative case reports on emerging contaminants stated that due to contradictions in “the outcomes of some investigations and the limited number of articles, no significant conclusions regarding the relationship between adverse effects on humans and extents of exposure can be drawn at this time.”¹⁵

IV. STATE OF PFAS CONTAMINATION

The scientific community is rapidly recognizing and evolving its understanding of PFAS in the environment, and there is an increased pace of development of guidance values and regulations.¹⁶ In 2012, EPA, under its third unregulated contaminant monitoring rule (UCMR 3), required approximately 5,000 public water systems to monitor for six PFAS—including PFOA and PFOS—between January 2013 and December 2015.ⁱⁱ Completed in 2016, it comprises much of the current data available regarding PFAS in public drinking water and showed the following results among public water systems that conducted testing:¹⁷

- PFOA was detected in 0.3% (13) of systems at levels exceeding 70 parts per trillion (ppt), which is EPA’s Lifetime Health Advisory (LHA) for PFOA and PFOS, individually or combined.
- PFOS was detected in 0.9% (46) of systems exceeding 70 ppt.
- None of the four other PFAS were detected above the LHA.

Further analysis of this data by academic and other researchers showed:

- Of the six PFAS compounds for which monitoring was required, one or more of them were detected in 194 out of 4,864 PWS tested (~4%), which serve about 16.5 million people in 33 states, 3 territories, and 1 Native-American community.¹⁸
- Drinking water from 13 states accounted for 75% of detections, including, by order of frequency of detection, California, New Jersey, North Carolina, Alabama, Florida, Pennsylvania, Ohio, New York, Georgia, Minnesota, Arizona, Massachusetts, and Illinois.¹⁹
- Approximately six million residents of the United States served by 66 public water systems had drinking water with concentrations of PFOA or PFOS, separately or combined, above the USEPA’s LHA -- many of the public water systems with detections of PFOA or PFOS above the EPA LHA have acted to reduce these levels.²⁰

¹⁵ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4680045/>

¹⁶ U.S. EPA, “Revisions to the Unregulated Contaminant Monitoring Regulation (UCMR 3) for Public Water Systems,” 77 *Federal Register* 26072, May 2, 2012. See also https://pfas-1.itrcweb.org/wp-content/uploads/2018/01/pfas_fact_sheet_regulations__1_4_18.pdf

¹⁷ U.S. EPA, *Occurrence Data for the Unregulated Contaminant Monitoring Rule*, <https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule>.

¹⁸ <https://pubs.acs.org/doi/pdf/10.1021/acs.estlett.6b00260>

¹⁹ *Ibid.*

²⁰ *Ibid.*

- The number of industrial sites that manufacture or use these compounds, the number of military fire training areas, and the number of wastewater treatment plants are all significant predictors of PFAS detection frequencies and concentrations in public water supplies.²¹ⁱⁱⁱ

As of June 2018, EPA was actively engaged in PFAS activities at 70 Federal Facility NPL Sites, with the Agency anticipating the number could grow since there are known or suspected contaminations of PFAS at many of the 140 Department of Defense Federal Facility NPL Sites.^{22iv} In addition, there are “known PFAS detections” at a combined 36 non-Federal sites that are either listed on or proposed for listing on the National Priorities List (NPL) sites, as well as hundreds of sites EPA suspects are potential NPL sites (e.g., 100 metal plating sites, 300 landfills).²³

V. GOVERNMENTAL RESPONSES TO PFAS IN THE ENVIRONMENT

Under clause 1(f) of Rule X of the Rules of the House of Representatives, the Committee on Energy and Commerce has jurisdiction over several statutes that may be relevant to addressing PFAS in the environment: including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Toxic Substances Control Act (TSCA)^v, the Clean Air Act (CAA), and the Safe Drinking Water Act (SDWA).

While much attention has been focused on EPA not having issued a national primary drinking water regulation for PFAS under SDWA or determining that PFAS is a ‘hazardous substance’ under the CERCLA, EPA has announced actions it is taking to address concerns about PFAS in the environment^{vi}:

- In May 2016, USEPA updated its Lifetime Health Advisory (LHA) – an advisory, non-regulatory, and unenforceable set of health and water treatment recommendations – for PFOA and PFOS in drinking water of 70 ng/L. This LHA is applicable to PFOA and PFOS individually, or in combination if both contaminants are present.²⁴ The LHA supersedes USEPA’s 2009 provisional health advisory for short-term exposures -- 200 ng/L for PFOS and 400 ng/L for PFOA;²⁵
- In November 2016, EPA began assessing PFOA and PFOS against the three SDWA regulatory determination criteria. USEPA reaffirmed its commitment to initiate steps to evaluate the need for a maximum contaminant level (MCL) for PFOA and PFOS on May 22, 2018^{26,vii};
- On May 22, 2018, USEPA announced plans to take additional steps to address PFAS contamination on several fronts:
 - Begin the necessary steps to propose designating PFOA and PFOS as “hazardous substances” through one of the available statutory mechanisms, including potentially CERCLA Section 102;^{viii}
 - Developing groundwater cleanup recommendations for PFOA and PFOS at contaminated sites;

²¹ <https://pubs.acs.org/doi/pdf/10.1021/acs.estlett.6b00260>

²² EPA Activities on Per- and Polyfluoroalkyl Substances (PFAS), EPA Briefing for House Committee on Energy & Commerce, June 6, 2018, slide #11.

²³ Ibid.

²⁴ <https://www.gpo.gov/fdsys/pkg/FR-2016-05-25/pdf/2016-12361.pdf>

²⁵ https://pfas-1.itrcweb.org/wp-content/uploads/2018/01/pfas_fact_sheet_regulations__1_4_18.pdf

²⁶ <https://www.epa.gov/newsreleases/administrator-pruitt-kicks-national-leadership-summit-pfas>

- Acting in collaboration with federal and state agencies to develop toxicity values for GenX chemicals and PFBS;
- Travel to states with communities impacted by PFAS to discuss supporting work occurring at state, local and tribal levels; and
- Develop a PFAS Management Plan.

In addition, the States are also taking aggressive action to address PFAS contamination in the environment. According to a July 16, 2018 internet posting by the Interstate Technology and Regulatory Council (ITRC), four states (Alaska, Michigan, North Carolina, and Texas) and the U.S. Environmental Protection Agency had soil screening levels of PFOA for groundwater protection and Alaska, Michigan, and Texas have a value for PFOS.²⁷ Nine states (Alaska, Delaware, Michigan, Minnesota, Nevada, New Hampshire, North Carolina, Texas, and Iowa) and EPA all have human health soil screening levels for PFOA and PFOS or other PFAS.²⁸

ITRC also reports that 21 states (Alabama, Arizona, Alaska, Colorado, Connecticut, Delaware, Iowa, Maine, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New Jersey, North Carolina, Oregon, Pennsylvania, Rhode Island, Texas, Vermont, and West Virginia) and EPA have adopted guidance values or standards for PFOS, PFOA, or other PFAS²⁹ -- the State of Washington began a rulemaking for PFAS in drinking water in late 2017; New Jersey proposed a drinking water standard for one PFAS (PFNA) in 2017 and is evaluating PFOA and PFOS. That evaluation will take about two years to complete.³⁰

VI. POTENTIAL AREAS OF DISCUSSION

- What are the technical and economic barriers that communities face responding to PFAS contamination?
- What should the public know about the risks and the best way to prevent unhealthy exposures?
- Are the parties responsible for contamination meaningfully addressing the cleanup of the contamination caused and any damage to local water systems?
- What is the status of EPA's plans regarding PFAS that were announced by the Agency on May 22, 2018?

VII. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Jerry Couri, Tina Richards, or Mary Martin of the Committee staff at (202) 225-2927.

¹ From Overview of Emerging Contaminants and Associated Human Health Effects" by Meng Lei et. al: "*because of significant progress in the analysis and detection of trace pollutants, emerging contaminants have been discovered and quantified in living beings and diverse environmental substances; however, the adverse effects of environmental exposure on the*

²⁷ <https://pfas-1.itrcweb.org/fact-sheets/>

²⁸ Ibid.

²⁹ Ibid.

³⁰ <https://www.doh.wa.gov/CommunityandEnvironment/Contaminants/PFAS>

general population are largely unknown. This review summarizes the conclusions of the comprehensive epidemic literature and representative case reports relevant to emerging contaminants and the human body to address concerns about potential harmful health effects in the general population. The most prevalent emerging contaminants include perfluorinated compounds, water disinfection byproducts, gasoline additives, manufactured nanomaterials, human and veterinary pharmaceuticals, and UV-filters. Rare but statistically meaningful connections have been reported for a number of contaminants and cancer and reproductive risks. Because of contradictions in the outcomes of some investigations and the limited number of articles, no significant conclusions regarding the relationship between adverse effects on humans and extents of exposure can be drawn at this time. Here, we report that the current evidence is not conclusive and comprehensive and suggest prospective cohort studies in the future to evaluate the associations between human health outcomes and emerging environmental contaminants.”

ⁱⁱ Under SDWA section 1445, USEPA uses the UCMR to collect data for chemicals that are suspected to be present in drinking water. The third round of this monitoring effort, or UCMR3, included six PFAS: PFOS, PFOA, perfluorononanoic acid (PFNA), perfluorohexanesulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), and perfluorobutanesulfonic acid (PFBS).

ⁱⁱⁱ Among samples with detectable PFAS levels, each additional military site within a watershed’s eight-digit hydrologic unit is associated with a 20% increase in PFHxS, a 10% increase in both PFHpA and PFOA, and a 35% increase in PFOS. The number of civilian airports with personnel trained in the use of aqueous film-forming foams is significantly associated with the detection of PFASs above the minimal reporting level.

^{iv} PFAS detections in groundwater range from non-detect (based on analytical method limitations) or slightly exceeding the Drinking Water Health Advisory of 70 ppt (PFOA and PFOS combined) to 2,000,000 ppt.

^v Title I of the Toxic Substances Control Act gives EPA broad authority to assess chemical substances and regulate the manufacture, processing, use, distribution in commerce, and disposal if the assessment of that chemical demonstrates an unreasonable risk to health or the environment, including sensitive subpopulations and without regard to economic considerations. TSCA section 4 gives EPA broad powers to order manufacturers to provide studies on the health and environmental effects of the chemical substance, section 5 bars any new chemical from going into the market unless EPA approves its use, and section 6 permits the ability to regulate existing chemicals.

^{vi} The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) authorizes cleanup and enforcement actions to respond to actual or threatened releases of hazardous substances into the environment. CERCLA directs EPA to maintain a National Priorities List (NPL) to identify the most hazardous sites for prioritizing cleanup actions. The states and the public may participate in federal cleanup decisions at NPL sites. The states are primarily responsible for pursuing the cleanup of sites not listed on the NPL, with the federal role at these sites limited mainly to addressing emergencies. CERCLA established a broad liability scheme that holds past and current owners and operators of facilities from which a release occurs financially responsible for cleanup costs, natural resource damages, and the costs of federal public health studies. At waste disposal sites, generators of the wastes and transporters of the wastes who selected the site for disposal also are liable under CERCLA. The liability of these “potentially responsible parties” (PRPs) has been interpreted by the courts to be strict, joint and several, and retroactive. At contaminated federal facilities, federal agencies are subject to liability under CERCLA as the owners and operators of those facilities on behalf of the United States. Federal agencies also may be liable if an agency generated or transported waste for disposal at a non-federal facility.

^{vii} Pursuant to SDWA section 1412(b), SDWA requires EPA to promulgate national primary drinking water regulations for contaminants if the Administrator determines that “a contaminant may have adverse health effects; it is known, 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 its regulation presents a meaningful opportunity for health risk reduction for persons served by public water systems.”

To help decide whether the above criteria has been met, SDWA gives EPA authority, every 5 years, to conduct a monitoring program for 30 unregulated contaminants in a public water system and to make determinations on whether 5 unregulated contaminants meet the above criteria requiring regulation.

^{viii} Pursuant to CERCLA section 101(14), a substance becomes 'hazardous' for the purposes of CERCLA when USEPA determines, under CERCLA section 102, "that such elements, compounds, mixtures, solutions, and substances which, when released into the environment may present substantial danger to the public health or welfare or the environment." Alternately, CERCLA section 101(14) makes a substance 'hazardous' if USEPA determines it is: (a) a 'hazardous substance' or 'toxic pollutant' under the Federal Water Pollution Control Act (Clean Water Act), (b) a 'hazardous waste' under the Solid Waste Disposal Act, (c) a 'hazardous air pollutant' listed under Clean Air Act section 112, or (d) any 'imminently hazardous chemical substance or mixture' under section 7 of the Toxic Substances Control Act.



EPA Activities on Per- and Polyfluoroalkyl Substances (PFAS)

EPA Briefing for House Committee on Energy & Commerce

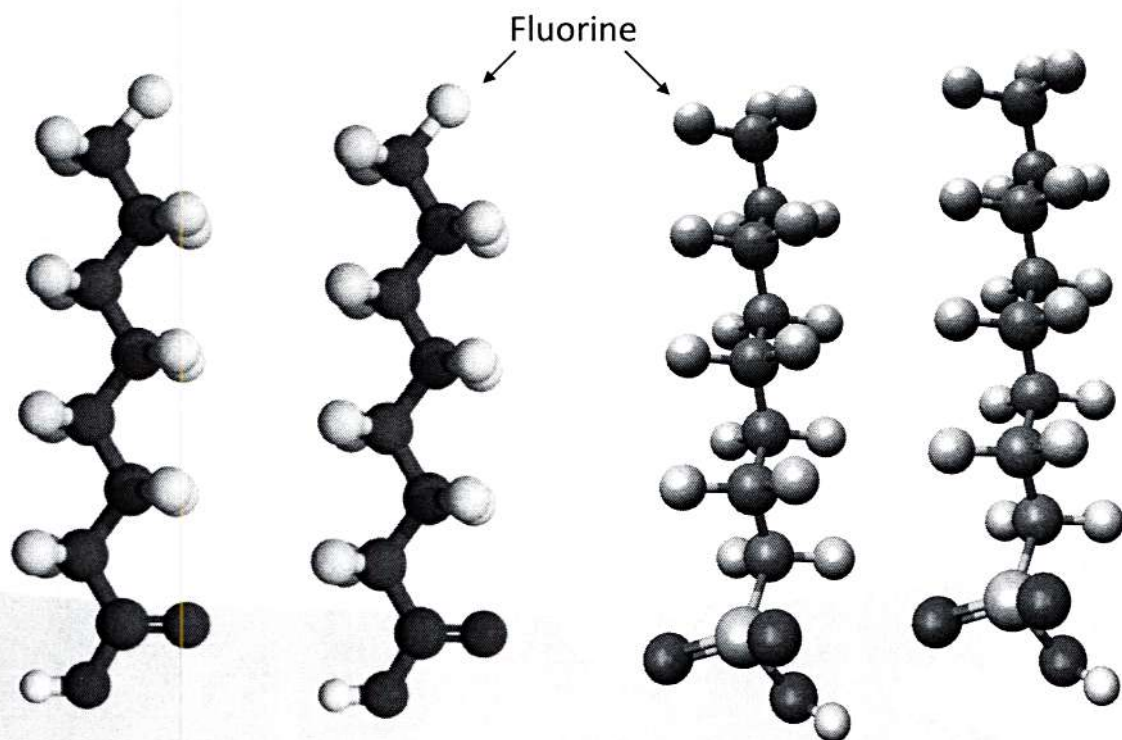
June 6, 2018



Outline

- What are Per- and Polyfluoroalkyl Substances (PFAS)?
- How are PFAS used?
- What is EPA doing about it?

Per- and Polyfluoroalkyl Substances (PFAS)



Perfluorooctanoic acid (PFOA)

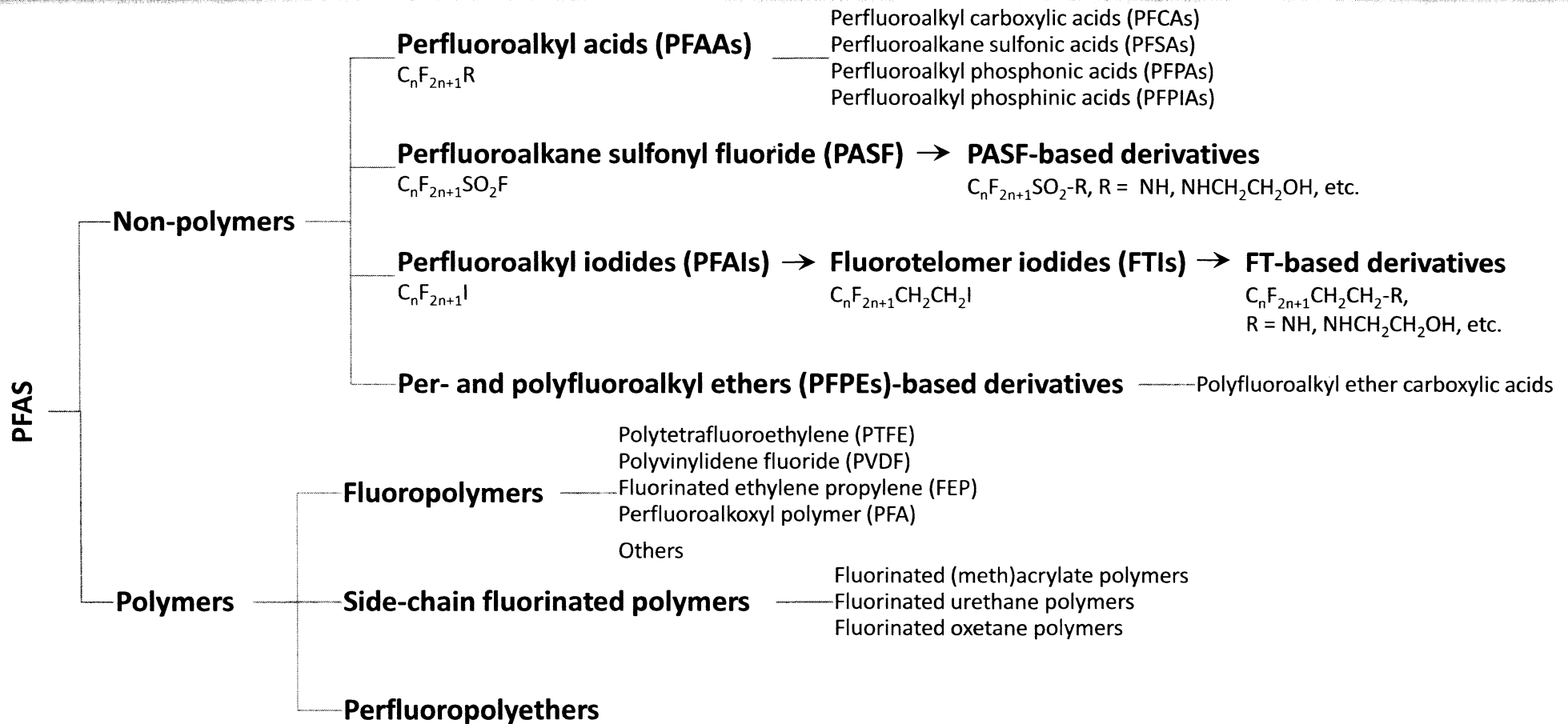
Perfluorooctanesulfonic acid (PFOS)

➤ A class of man-made chemicals

- Chains of carbon (C) atoms surrounded by fluorine (F) atoms
 - Water-repellent (hydrophobic)
 - Stable C-F bond
- Some PFAS include oxygen, hydrogen, sulfur and/or nitrogen atoms, creating a polar end



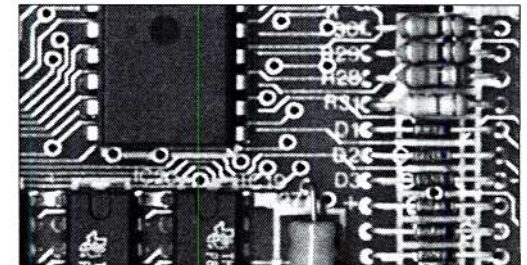
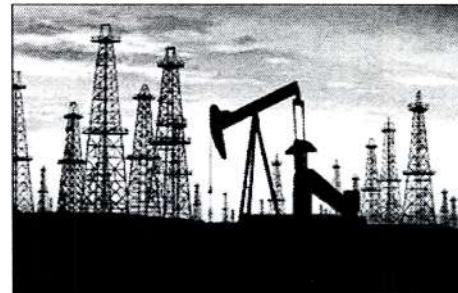
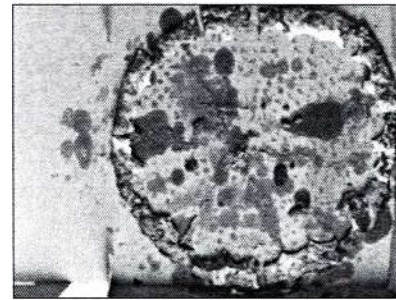
Thousands of Chemicals: More Than Just PFOA and PFOS





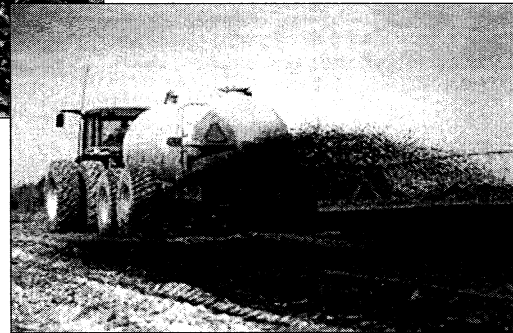
Used in Homes, Businesses & Industry

- Food contact surfaces such as cookware, pizza boxes, fast food wrappers, popcorn bags, etc.
- Polishes, waxes, and paints
- Stain repellants for carpets, clothing, upholstered furniture, etc.
- Cleaning products
- Dust suppression for chrome plating
- Electronics manufacturing
- Oil and mining for enhanced recovery
- Performance chemicals such as hydraulic fluid, fuel additives, etc.





Sources of PFAS in the Environment



- Direct release of PFAS or PFAS products into the environment
 - Use of aqueous film forming foam (AFFF) in training and emergency response
 - Release from industrial facility
- Chrome plating and etching facilities
- Landfills and leachates from disposal of consumer and industrial products containing PFAS
- Wastewater treatment effluent and land application of biosolids



Reasons for Concern

- Known or suspected toxicity
- PFAS and/or breakdown products are persistent in the environment
- Persistence in biota vary greatly across PFASs and species
- Used by a variety of industries
- Found in a variety of consumer products
- Most people have been exposed to PFAS





EPA's Current PFAS Activities

- **Issues related to PFAS involve most EPA Programs and Regions**

- **Four broad goals:**
 - Fill data gaps related to human health toxicity to inform public concerns and risk mitigation
 - Establish validated methods for measuring many PFAS in different media
 - Reduce environmental exposures
 - Assure accurate and timely risk communications



EPA's PFAS Coordinating Committee

- **EPA announced cross-Agency effort to address PFAS in December 2017**
- **Focus on near-term actions to support states, tribes and local communities, including:**
 - Fill data gaps related to toxicity of additional PFAS compounds
 - Develop analytical methods to expand the capacity for analysis of PFAS compounds in drinking water and other contaminated media
 - Provide treatability information for PFAS compounds in contaminated media
 - Expand tools for proactive risk communication with communities impacted by PFAS compounds
- **EPA's Office of Water is leading these efforts**
 - Includes members from EPA's air, chemicals, land, water, enforcement, and research offices as well as EPA regions to enhance cooperation with partners at the state and local level



Current PFAS Activities in Water

- **Published Drinking Water Health Advisories (HA) in 2016 for PFOA and PFOS**
 - HAs are non-regulatory information for federal, state and local officials to consider when addressing drinking water contamination
 - Identified 0.07 µg/L (70 ppt) as the HA level for PFOA and PFOS combined and provided information about treatment and monitoring

- **Evaluating PFOA and PFOS for regulatory determination under the Safe Drinking Water Act (SDWA)**
 - PFOA and PFOS are on the fourth Contaminant Candidate List (CCL 4) published in November 2016. OW is assessing PFOA and PFOS against the three SDWA regulatory determination criteria
 - *May have an adverse effect on the health of persons*
 - *Is known to occur or there is a substantial likelihood that it will occur in public water systems with a frequency and at levels of public health concern*
 - *In the sole judgment of the Administrator, regulating the contaminant presents a meaningful opportunity for health risk reductions for persons served by public water systems*
 - From 2013 to 2015, EPA collected nationally representative data on the occurrence of six PFAS in public water systems (including PFOA and PFOS)



Current PFAS Activities for Waste Sites

➤ **EPA Federal Facility Superfund Program**

- Actively engaged PFAS activities at 70 Federal Facility NPL Sites
- It is anticipated that this number will grow since there are known or suspected contaminations of PFAS at many of the 140 DoD Federal Facility NPL Sites
- PFAS detections in groundwater range from non-detect (based on analytical method limitations) or slightly exceeding the Drinking Water Health Advisory of 70 ppt (PFOA and PFOS combined) to 2,000,000 ppt
- Drinking water has been potentially impacted at 27 of these Federal Facility NPL sites

➤ **Office of Superfund Remediation and Technology Innovation (OSRTI)**

- Known PFAS detections at 36 non-Federal final and proposed NPL sites
- 100s of potential NPL sites (e.g., 100 metal plating sites, 300 landfills)

➤ **Regional Assistance**

- OLEM offices hold site-specific consultations with EPA Regions on investigations of PFAS contamination
- OSRTI/FFRRO provides ongoing technical assistance on PFAS issues and also coordinates with the Regions on their needs and priorities on PFAS issues
- Develop cleanup recommendations for PFOA/PFOS contaminated groundwater



Current PFAS Activities in Chemical Use

➤ **PFOA Stewardship Program**

- Eight companies participated in the program and successfully eliminated production of PFOA
- Resulted in phase-out of PFOA and related PFAS, including potential PFOA precursors, by these companies by the end of 2015

➤ **EPA's New Chemicals Program**

- Since 2000 have reviewed hundreds of pre-market alternatives for PFOA and related chemicals
- Most were approved with restrictions and data-generation requirements

➤ **Significant New Use Rule (SNUR)**

- Proposed on January 21, 2015, to require manufacturers, importers, and processors of PFOA and related chemicals (including as part of articles), to notify EPA at least 90 days before starting or resuming new uses of these chemicals in any products
- Notification provides EPA opportunity to conduct risk assessment/management for the new use

➤ **Gen X**

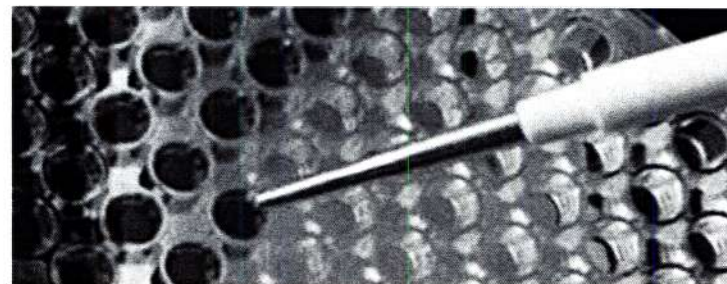
- Determining the need to revise the GenX risk assessment originally done for its pre-market approval, based on data received by the company and other information arising from the NC situation



Current PFAS Research Activities

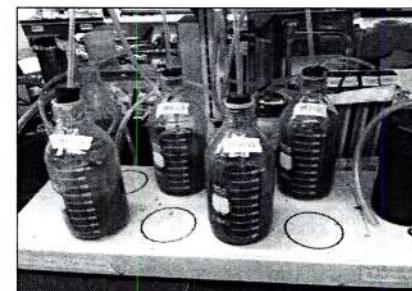
➤ Human Health/Toxicity

- Understand human health toxicity
- Inform risk mitigation activities
- Chemical library and high throughput toxicity testing



➤ Analytical Methods

- Establish validated methods for measuring PFAS in different environmental media

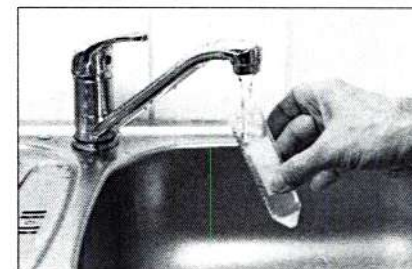


➤ Site Characterization/Exposure

- Develop sampling methods to characterize sources and contaminated sites
- Identify and estimate human exposure to PFAS from different sources

➤ Treatment/Remediation

- Identify/evaluate methods to reduce PFAS exposures
- Identify/evaluate methods to treat and remediate drinking water and contaminated sites





EPA's PFAS National Leadership Summit

- **Included representatives from over 40 states, tribes, and territories; 20 federal agencies; congressional staff; associations; industry groups; and non-governmental organizations.**
- **EPA provided the opportunity for the public to join in a portion of the meeting via streaming online and is asking the public to send written input to EPA**
 - visit <https://www.regulations.gov/> enter docket number: [OW-2018-0270](#)
- **During EPA's PFAS National Leadership Summit, participants worked together to:**
 - Share information on ongoing efforts to identify PFAS in communities and characterize risks from PFAS
 - Identify specific near-term actions, beyond those already underway, that are needed to address challenges currently facing states and local communities
 - Develop risk communication strategies that will help communities to address public concerns with PFAS



EPA's PFAS Summit/Engagement

- **Administrator Pruitt announced four actions EPA will take following the summit:**
 - EPA will initiate steps to evaluate the need for a maximum contaminant level (MCL) for PFOA and PFOS.
 - EPA is beginning the necessary steps to propose designating PFOA and PFOS as “hazardous substances” through one of the available statutory mechanisms, including potentially CERCLA Section 102.
 - EPA is currently developing groundwater cleanup recommendations for PFOA and PFOS at contaminated sites and will complete this task by fall of this year.
 - EPA is taking action in close collaboration with our federal and state partners to develop toxicity values for GenX and PFBS by this summer.
- **EPA's Community Engagement**
 - Following the summit, EPA will travel to states with communities impacted by PFAS to further engage on ways the agency can best support work occurring at state, local and tribal levels
- **EPA plans to develop a PFAS Management Plan using information gained from the Summit, community engagements and information provided by the public.**