PFAS Background

What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been in use since the 1940s.
- There are many PFAS chemicals, including the chemicals perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and GenX chemicals (HFPO dimer acid and its potassium salt).
- Due to their strong carbon-fluorine bonds, many PFAS can be very persistent in the environment with degradation periods of years, decades, or longer under natural conditions.
- Two of the most studied PFAS are Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS).

Where are PFAS found?

- PFAS are (or have been) found in a wide array of consumer products like cookware, food packaging, and stain and water repellants used in fabrics, carpets and outerwear.
- PFAS manufacturing and processing facilities, and airports and military installations that use firefighting foams which contain PFAS, are some of the contributors of PFAS chemical releases into the air, soil, and water, including sources of drinking water.

How can this impact people?

- Because of their widespread use and environmental persistence, most people have been exposed to PFAS chemicals.
- Some PFAS chemicals can accumulate and can stay in the human body for long periods of time.
- There is evidence that exposure to certain PFAS may lead to adverse health effects.

The EPA's previous work on PFAS

- The EPA has taken steps under its statutory authorities to understand and address these chemicals.
- For example, certain PFAS chemicals are no longer manufactured in the United States as a result of the EPA's PFOA Stewardship Program in which eight major chemical manufacturers agreed to phase out the use of PFOA and PFOA-related chemicals in their products and as emissions from their facilities. All companies met the PFOA Stewardship Program goals by 2015.
- The agency has issued various significant new use rules (SNURs) to guard against the unreviewed reintroduction and new use, through domestic production or import, of certain PFAS chemicals in the United States.
- The EPA has also worked with the states and local communities to monitor for six PFAS chemicals under the Safe Drinking Water Act to understand the nationwide occurrence of these chemicals in our drinking water systems.
- In 2016, the EPA issued drinking water lifetime health advisories for PFOA and PFOS of 70 parts per trillion individually or combined.
- The EPA is also working to advance research on other PFAS chemicals to better understand their health impacts, exposure pathways, options for treatment and removal.
- The EPA has released draft toxicity assessments for GenX chemicals and PFBS, and announced the initiation of assessments for five additional PFAS (PFBA, PFHxS, PFHxA, PFNA, PFDA) via the EPA's IRIS Program.
- To date, the Agency has issued enforcement orders, provided oversight for federal agency cleanups, assisted state enforcement actions, and provided technical assistance related to dozens of areas of PFAS contamination around the country.

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PFAS Action Plan

Background

- In May 2018, the EPA convened a two-day National Leadership Summit on PFAS in Washington, D.C. that brought together more than 200 federal, state, tribal, and local leaders from across the country to discuss steps to address PFAS.
- Following the Summit, the agency hosted a series of visits during the summer of 2018 in communities directly impacted by PFAS.
- The EPA interacted with more than 1,000 people during community engagement events in Exeter, New Hampshire, Horsham, Pennsylvania, Colorado Springs, Colorado, Fayetteville, North Carolina, and Leavenworth, Kansas as well as through a roundtable in Kalamazoo, Michigan and events with tribal representatives in Spokane, Washington.
- The EPA's PFAS Action Plan was developed based on feedback from these events in addition to information received from approximately 120,000 comments submitted to the public docket.

Action Plan Purpose

- Provides EPA's first multi-media, multi-program, national research, management and risk communication plan to address a challenge like PFAS.
- Responds to the extensive public input the agency has received over the past year during the PFAS National Leadership Summit, multiple community engagements, and through the public docket.
- As a result of this unprecedented outreach, the Action Plan provides the necessary tools to assist states, tribes, and communities in addressing PFAS.

Highlighted Action: Drinking Water

- The EPA is committed to following the MCL rulemaking process as established by SDWA.
- The Agency is also gathering and evaluating information to determine if regulation is appropriate for other chemicals in the PFAS family.

Supporting Statements

- The EPA is committed to following the Safe Drinking Water Act process for evaluating and establishing drinking water standards for PFAS chemicals.
- This process is designed to ensure public participation, transparency, and the use of the best-available peer reviewed science and other technical information.
- Proposing a regulatory determination is the next step in the regulatory process, and it enables the public to provide the EPA with information critical to regulatory decision making.

Highlighted Action: Cleanup

- The EPA will facilitate cleanup efforts by providing groundwater cleanup recommendations and is initiating the regulatory development process for listing certain PFAS as hazardous substances.

Supporting Statements (Hazardous Substances)

- EPA has already begun the regulatory development process for listing PFOA and PFOS as hazardous substances under the Superfund statute.
- This important work would provide additional tools to help states and communities address existing contamination by allowing them to recover costs from responsible parties.
- Designating PFOA and PFOS as CERCLA hazardous substances would provide additional authority to address PFOA and PFOS, including providing EPA additional authority to require responsible parties to carry out cleanups and providing EPA and others additional authority to seek recovery of cleanup costs from responsible parties so that states and communities do not have to bear the financial burden.

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- There are several statutory authorities available to designate PFOA and PFOS as CERCLA hazardous substances, including CERCLA, RCRA, TSCA, CWA, and the CAA.

Supporting Statements (Groundwater Cleanup)

- Groundwater cleanup recommendations are currently undergoing federal interagency review and will be released for public comment prior to finalization.
- These recommendations will provide a starting point for making site specific cleanup decisions and may be considered for federal facility and private party cleanup under CERCLA, RCRA corrective action programs, and may be considered by state cleanup programs, where appropriate.

Highlighted Action: Monitoring

- The EPA will propose nationwide drinking water monitoring for PFAS under the next UCMR monitoring cycle.

Supporting Statements

- The EPA collected data for six PFAS: PFOA, PFOS, PFBS, PFNA, PFHxS, and PFHpA under UCMR3 (2012-2016).
    - 1.3 % of PWSs had at least one sample with concentrations greater than 70 ppt for PFOA and/or PFOS
    - 4.0 % of PWSs reported measurements of one or more of the six PFAS.
- EPA intends to use new laboratory methods to monitor for more PFAS and at lower measurement levels in the next round of UCMR (UCMR5).

Highlighted Action: Toxics

- The EPA is considering the addition of PFAS chemicals to the Toxics Release Inventory and issuing a supplemental proposal to guard against the unreviewed reintroduction and new use, through domestic production or import, of certain PFAS chemicals in the United States.

Supporting Statements (TRI)

- The TRI tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. Specifically, through annual reporting, it provides information about listed toxic chemical releases and related pollution prevention activities by covered industrial and federal facilities.
- TRI data support informed decision-making by communities, government agencies, companies, and others.
- In considering listing a chemical on the TRI, the EPA must determine whether data and information are available to fulfil the statutory listing criteria. In making such listing decisions, EPA also considers the extent and utility of the data that would be gathered.
- The process for listing PFAS chemicals on the TRI would include notice and comment rulemaking.

Supporting Statements (SNURs)

- The issuance of a Significant New Use Rule (SNUR) under the Toxic Substances Control Act (TSCA) requires manufacturers (including importers) and processors of certain PFAS chemicals to notify the EPA at least 90 days prior to starting or resuming new uses of the chemical.
- This notification requires the EPA to review the new use, make a risk determination, and take appropriate regulatory action based on that risk determination.
- The EPA has issued SNURs for hundreds of PFAS chemicals from 2002-2015.
- The EPA is now working to issue a supplemental proposed SNUR for additional long-chain perfluoroalkyl carboxylate (LCPFAC) chemical substances, including use as part of categories of certain articles, and the processing of these chemicals.

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Highlighted Action: Research

- The EPA is rapidly expanding the scientific foundation for understanding and managing risk from PFAS.

Supporting Statements

- The EPA is conducting applied research to develop knowledge, tools and data to enable action on PFAS.
- The EPA is researching a large number of PFAS using cutting edge approaches.
- This research is organized around understanding toxicity, understanding exposure, assessing risk, and identifying effective treatment and remediation actions.
- Research is being done in collaboration with federal partners, state agencies, universities, and private industry.

Highlighted Action: Enforcement

- The EPA uses enforcement tools, when appropriate, to address PFAS exposure in the environment and assist states in enforcement activities.

Supporting Statements

- The EPA intends to employ an enforcement strategy that relies first on state and local authorities and utilizes federal authorities as appropriate.
- Additionally, if the EPA finds that there may be an imminent and substantial endangerment to public health related to PFAS, the Agency will consider using its current authorities (e.g. RCRA, SDWA).

Highlighted Action: Risk Communications

- The EPA will work collaboratively to develop a risk communication toolbox that includes multi-media materials and messaging for federal, state, tribal, and local partners to use with the public.

Supporting Statements

- The EPA is committing to working collaboratively to ensure consistent messaging that is informed by the best available science is provided to the public.
- The EPA will help to improve communications through the development of a risk communication toolbox.

Next Steps

- To implement the plan, the EPA will continue to work in close coordination with multiple entities, including other federal agencies, states, tribes, local governments, water utilities, industry, and the public.
- The EPA will provide updates on actions outlined in the plan on the Agency's website.

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