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Testimony of
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Environmental Working Group
Before the
Environment Subcommittee
Of the House Committee on Oversight and Government Reform
on
Per- and Poly- Fluoroalkyl Substances (PFAS)
November 19, 2019

Thank you for the opportunity to testify on behalf of the Environmental Working Group, a national environmental health organization that for two decades has sought to address the health risks posed by per- and poly- fluoroalkyl substances.

To address the growing PFAS contamination crisis, Congress should reduce ongoing sources of PFAS contamination, measure the scope of PFAS contamination, notify communities affected by PFAS contamination, and dramatically accelerate efforts to clean up PFAS contamination.

PFAS Chemicals Pose Serious Health Risks

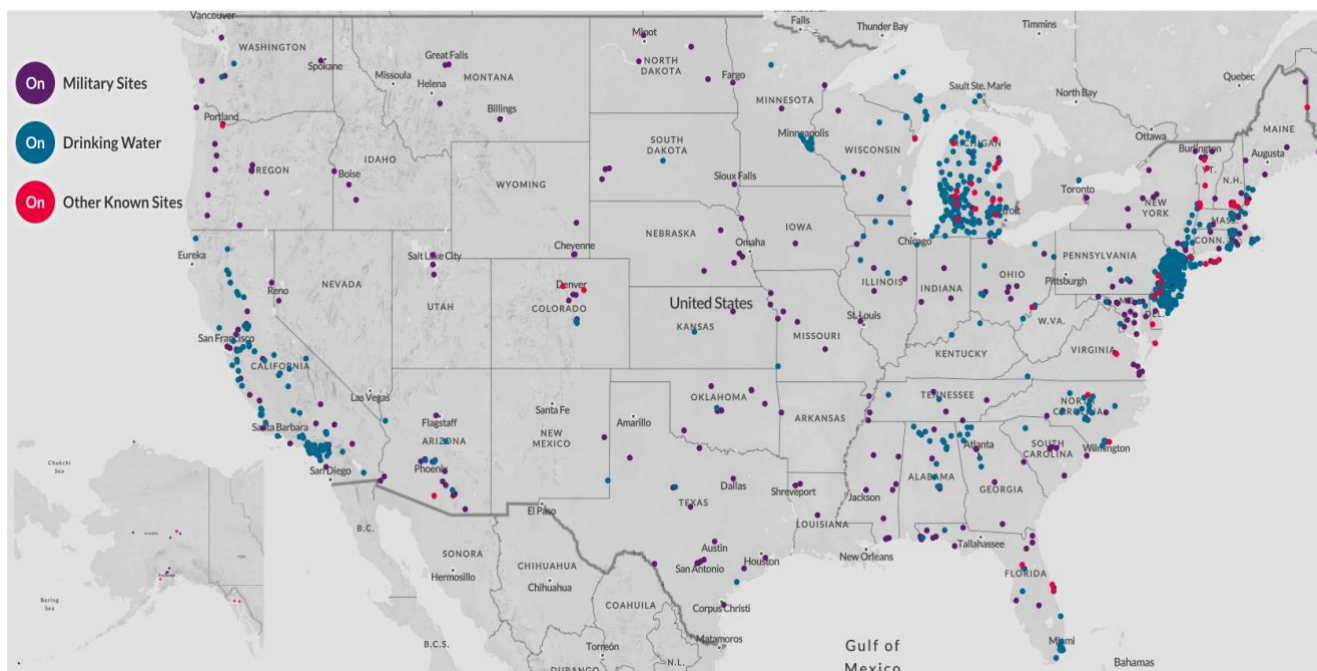
Nearly all of us are contaminated by PFAS chemicals.¹ Americans are exposed to dozens of PFAS every day – through our food, water, air, indoor dust, carpets, clothing and cosmetics.

¹ Centers for Disease Control and Prevention, National Biomonitoring Program, Per- and Polyfluorinated Substances (PFAS) Factsheet, https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html (last updated April 7, 2017). See also <https://www.ewg.org/news-and-analysis/2019/02/children-s-exposure-pfas-chemicals-begins-womb>



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Although diet and dust are likely significant sources of PFAS exposure, even low PFAS concentrations in drinking water can substantially increase our body burden.² To date, EWG has confirmed the presence of PFAS in tap water or groundwater in communities across the nation, including nearly 300 military installations, but we are just beginning to understand the scope of this contamination crisis.³



Exposure to very low doses of some PFAS chemicals is associated with serious health risks, including cancer, reproductive harm, developmental harm, damage to the immune system, hormone disruption, and liver and kidney damage.⁴ Because some PFAS chemicals have a long

² See, e.g., Gloria B. Post & Jessie A. Gleason, *Technical Support Document: Interim Specific Ground Water Criterion for Perfluorooctanoic Acid (PFOA, C8)(CAS #335-67-1; Chemical Structure: CF₃(CF₂)₆COOH)*, (New Jersey Department of Environmental Protection, Division of Science, Research & Environmental Health, at 4 (Jan. 2019), <https://www.nj.gov/dep/dsr/Technical%20Support%20Document%20Draft%20ISGWQC%20for%20PFOA.pdf>.

³ See https://www.ewg.org/interactive-maps/2019_pfas_contamination/map/

⁴ Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Perfluoroalkyls* (2018) <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>



half-life in our bodies,⁵ some PFAS bio-accumulate, or build up, in our blood serum and organs. Once released into the environment, PFAS are highly mobile and do not readily break down – thus leading to the designation of PFAS as “forever chemicals.”⁶

Although the health effects of PFOA and PFOS are well known, replacement chemicals – such as GenX and PFBS – pose many of the same health risks.⁷ Other PFAS chemicals linked to chronic health problems include PFHxS, PFNA, PFDeA, PFDoA, PFUA, PFHxA and PFBA.⁸ Short-chain PFAS can be equally persistent, more mobile in the environment, and also accumulate in the body.⁹

PFAS chemicals affect our health at all stages of life but pose unique risks to infants and children.¹⁰ PFAS safety standards that protect infants and that consider all health impacts, including harm to the immune system, range from 8 parts per trillion, or ppt, and 9 ppt for PFOS and PFOA, as proposed by Michigan¹¹; to 13 ppt and 14 ppt for PFOS and PFOA, as proposed by New Jersey¹²; to a sum of 20 ppt for five and six PFAS, as proposed by Vermont¹³ and

5 Half-life estimates range from over 2 years from PFOA and PFNA to 5.4 years for PFOS to 8.5 years for PFHxS. See Anna Reade, Tracy Quinn, & Judith S. Schreiber, *Scientific and Policy Assessment for Addressing PFAS in Drinking Water* (2019) at 12, <https://www.nrdc.org/sites/default/files/assessment-for-addressing-pfas-chemicals-in-michigan-drinking-water.pdf>.

6 Joseph G. Allen, *These Toxic Chemicals are Everywhere – Even in Your Body. And They Won’t Ever Go Away*, Washington Post, Jan. 2, 2018, https://www.washingtonpost.com/opinions/these-toxic-chemicals-are-everywhere-and-they-wont-ever-go-away/2018/01/02/82e7e48a-e4ee-11e7-a65d-1ac0fd7f097e_story.html?utm_term=.af2b55788f59

7 Environmental Protection Agency, GenX and PFBS Draft Toxicity Assessments (2018), <https://www.epa.gov/pfas/genx-and-pfbs-draft-toxicity-assessments>

8 Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Perfluoroalkyls* (2018) <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>

9 Reade et al., *supra* note 5, at 25-26.

10 Kristen M. Rappazzo, Evan Coffman, & Erin P. Hines, *Exposure to Perfluorinated Alkyl Substances and Health Outcomes in Children: A Systematic Review of the Epidemiological Research*, 14 Int. J. Environ. Research & Public Health 691 (2017), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5551129/>

11 Michigan Department of Health and Human Services, Division of Environmental Health, PFAS Action Response Team Human Health Working Group, *Public Health Drinking Water Screening Levels for PFAS* (Feb. 22, 2019), https://www.michigan.gov/documents/pfasresponse/MDHHS_Public_Health_Drinking_Water_Screening_Levels_for_PFAS_651683_7.pdf.

12 New Jersey Department of Environmental Protection, Site Remediation Program, <https://www.nj.gov/dep/srp/emerging-contaminants/> (last updated March 13, 2019).

13 Press Release, State of Vermont Agency of Natural Resources, Health Department Updates Health Advisory for PFAS, State Expands Testing Plan to Include 10 Schools in Pilot Project (July 10, 2018), <https://anr.vermont.gov/node/1223>.



Massachusetts¹⁴, respectively. Other studies and public health agencies have recommended even lower values.¹⁵ However, some water treatment technologies can reduce concentrations of PFOA, PFOS, PFNA, PFHxS, GenX and other PFAS chemicals to levels below 1 ppt and address other contaminants of concern.¹⁶

Despite the risks posed by PFAS, there are no legal limits on releases of PFAS chemicals, or legal requirements to clean up legacy PFAS contamination. Military and civilian firefighters can continue to use fluorinated firefighting foams that slowly seep into drinking water supplies. Manufacturers continue to discharge PFAS into the air and water. Nearly 500 industrial facilities are suspected of releases of PFAS chemicals, but these manufacturers are not subject to any environmental or reporting requirements.¹⁷ Although some states have begun to set drinking water standards, water utilities are not yet required to remove PFAS from our tap water – or even test for their presence. Because PFAS have not yet been designated “hazardous substances” under federal cleanup law, PFAS polluters are not required to clean up legacy PFAS contamination.

Congressional Action Urgently Needed

In February, EPA released a PFAS Action Plan that failed to treat the PFAS contamination crisis with appropriate urgency.¹⁸ In particular, EPA has failed to address ongoing PFAS releases into our air, water or food; failed to add any PFAS chemicals to the Toxic Release Inventory; failed to expand efforts to monitor for PFAS; and taken no steps to clean up existing PFAS contamination or filter polluted water. To reduce the risks posed by PFAS contamination, Congress should address ongoing sources of PFAS contamination; document the sources and

¹⁴ Letter from Yvette DePieza, Program Director, Drinking Water Program, Massachusetts Department of Environmental Protection, to Public Water Suppliers (April 17, 2019), <https://www.mass.gov/files/documents/2019/04/18/pfas-letter-faq.pdf>.

¹⁵ See e.g. <https://www.ewg.org/research/ewg-proposes-pfas-standards-fully-protect-children-s-health>

¹⁶ Reade et al., *supra* note 5, at 53.

¹⁷ See https://www.ewg.org/interactive-maps/2019_suspected_industrial_discharges_of_pfas/map/

¹⁸ Press Release, Environmental Working Group, Trump PFAS Plan is a Recipe for More Contamination (Feb. 14, 2019), <https://www.ewg.org/release/trump-pfas-plan-recipe-more-contamination>



scope of existing PFAS contamination; and dramatically accelerate efforts to clean up existing PFAS contamination.

Address Ongoing PFAS Contamination

To address ongoing air and water releases of PFAS, Congress should subject industrial water releases of PFAS to regulation under Sec. 307 and Sec. 311 of the Clean Water Act, as proposed by Rep. Pappas' amendment to H.R. 2500,¹⁹ and subject industrial air releases of PFAS to regulation under Sec. 112 of the Clean Air Act, as proposed by H.R. 2605. Congress should also direct EPA to limit the application of bio-solids containing PFAS,²⁰ and should, at a minimum, phase out nonessential uses of PFAS in cookware, food packaging, textiles, cosmetics and other consumer products.²¹ Congress should also protect consumers from new PFAS, as proposed by H.R. 2596, and require comprehensive PFAS health testing, as proposed in H.R. 2608. Finally, Congress should quickly end the use of fluorinated firefighting foams, as proposed in Sec. 318 of H.R. 2500, and should direct scientists to study the health impacts of PFAS use in firefighting gear, as proposed in S. 2525.

Document the Scope of PFAS Contamination

Congress should also expand our ability to understand the scope of PFAS contamination. In particular, Congress should improve our ability to detect PFAS in water and soil, as proposed by

¹⁹ See https://amendments-rules.house.gov/amendments/PAPPNH_049_xml7819150948948.pdf. Sen. Gillibrand has announced similar legislation. See <https://www.gillibrand.senate.gov/news/press/release/gillibrand-announces-new-legislation-to-finally-stop-polluters-from-contaminating-new-york-waterways-with-toxic-levels-of-pfas>

²⁰ Congress should direct EPA to revise 40 CFR Part 503.13 to add PFAS to the list of pollutants to be regulated, and to prohibit land application of biosolids containing PFAS on agricultural lands. See Environmental Protection Agency, Office of Inspector General, *EPA Unable to Assess the Impacts of Hundreds of Unregulated Pollutants in Land-Applied Biosolids*, Report #19-P-0002 (Nov. 2018), <https://www.epa.gov/office-inspector-general/report-epa-unable-assess-impact-hundreds-unregulated-pollutants-land>

²¹ For example, H.R. 2827 would ban PFAS in food packaging. In general, new PFAS should not be approved until EPA and FDA regulators meet existing statutory obligations to assess health effects. The Environmental Defense Fund has documented both agencies failure to do so. See, e.g., Tom Neltner, *FDA-Approved PFAS: A Serious Breakdown in Assessing Food Additive Safety*, Environmental Defense Fund (Nov. 4, 2018), <http://blogs.edf.org/health/2018/11/04/fda-approved-pfas-breakdown-assessing-food-additive-safety/>;



H.R. 1976,²² and by amending Sec. 1445(a)(2)(B)(i) of the Safe Drinking Water Act to add all detectable PFAS to the next Unregulated Contaminant Monitoring Rule, as proposed in S. 1790.²³ In combination, monitoring ground and surface water, soil and tap water will allow us to better understand the full scope of PFAS contamination. Congress should also expand efforts to monitor PFAS in food and blood,²⁴ especially the blood of firefighters, as proposed in H.R. 1863. Congress should also ensure that communities affected by PFAS contamination, especially military families, be notified, as proposed in H.R. 2195.²⁵

Congress should also improve our ability to identify the sources of PFAS contamination. Many PFAS chemicals currently in use can be reasonably anticipated to cause serious health risks, including GenX, PFBS, PFHxS, PFNA, PFDeA, PFDoA, PFUA, PFHxA, and PFBA,²⁶ and many of these PFAS are being detected in water.²⁷ All PFAS that are reasonably anticipated to pose cancer or other chronic health risks should be added to the Toxic Release Inventory, as proposed in H.R. 2577. At a minimum, Congress should require that all industrial discharges of PFAS subject to a Significant New Use Rule,²⁸ and all PFAS for which there are toxicity values,

²² The PFAS Detection Act of 2019, S. 950, 116th Cong. (2019).

²³ Congress should exempt PFAS from the current statutory limit on the number of chemicals that can be added to the UCMR, and should direct EPA to develop a detection method for total PFAS, as proposed in S. 1790.

²⁴ See, e.g., Centers for Disease Control, National Biomonitoring Program, <https://www.cdc.gov/biomonitoring/index.html> (last updated April 7, 2017) (CDC's biomonitoring program monitors blood for contaminants like PFAS); Food and Drug Administration, Total Diets Study, <https://www.fda.gov/food/science-research-food/total-diet-study> (last updated Feb. 23, 2018) (FDA monitors food for contaminants like PFAS); and U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, American Healthy Homes Survey, <https://www.healthypeople.gov/2020/data-source/american-healthy-homes-survey> (last updated May 17, 2019) (HUD monitors indoor dust for contaminants like PFAS).

²⁵ PFAS Registry Act of 2019, S. 1105, 116th Cong. (2019).

²⁶ Agency for Toxic Substances and Disease Registry, *Toxicological Profile for Perfluoroalkyls* (2018) <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>.

²⁷ A recent study of source and treated water detected 12 PFAS, including PFBS, PFHxS, PFBA, PFHxA, PFNA, PFDeA, and PFDA, as well as PFOA and PFOS. See J. Scott Boone et al., *PFAS in Source and Treated Drinking Water in the United States*, 653 *Science of the Total Environment* 359 (2019), <https://www.sciencedirect.com/science/article/pii/S004896971834141X>.

²⁸ This would include all PFAS chemicals covered by 40 C.F.R. § 721.10535 (a significant new use rule covering long-chain perfluoroalkyl carboxylate chemical substances) and 40 C.F.R. § 721.9582 (a significant new use rule covering 271 perfluoroalkyl sulfonates). Once finalized, this would also cover any chemicals in EPA's 2015 proposed SNUR on PFAS. See Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances; Significant New Use Rule, 80 Fed. Reg. 2885 (Jan. 21, 2015).



be added to the TRI, as proposed in S.1507.²⁹ Because PFAS pose health risks at very low levels, Congress should direct EPA to use the same reporting threshold typically applied to chemicals of special concern.³⁰

Accelerate PFAS Cleanup Efforts

Congress should also dramatically accelerate efforts to clean up PFAS contamination and hold PFAS polluters accountable.³¹ To do so, Congress should designate PFAS as hazardous substances under Sec. 102 of CERCLA, as proposed in H.R. 535.³² The Department of Defense has cited the absence of a “hazardous” substance designation when declining to clean up legacy PFAS pollution.³³ By designating PFAS as hazardous substances, Congress will ensure that the costs of PFAS remediation are shared by responsible parties.³⁴ Designating PFAS as hazardous substances does not prohibit the use of PFAS in commerce.³⁵ In fact, EWG recently estimated that 599 of the 761 chemicals designated as hazardous substances are still used in commerce today.³⁶ Nor would designation of PFAS as hazardous substances automatically trigger liability. Congress should also ensure that PFAS wastes be properly managed, as proposed by Rep. Levin’s amendment to H.R. 2500.³⁷

²⁹ Congress should also require that any substantial risk submission made pursuant to Sec. 8(e), 15 U.S.C § 2607(e), of the Toxic Substances Control Act be automatically added to the TRI.

³⁰ See Lower Thresholds For Chemicals of Special Concern, 40 CFR § 372.28, <https://www.law.cornell.edu/cfr/text/40/372.28>.

³¹ PFAS polluters like 3M have known since the 1950s that PFAS could build up in our blood, and PFAS polluters like 3M and DuPont have known that PFAS could have toxic effects. See Attachment A.

³² The PFAS Action Act of 2019, S. 638, 116th Cong. (2019). Designating PFAS under Sec. 307(a) or 311(b)(2)(A) of the Clean Water Act, Sec. 112 of the Clean Air Act, Section 7 of TSCA, or Sec. 3001 of RCRA, would also add a substance to list of “hazardous substances” subject to CERCLA. See 42 U.S.C. 9601(14).

³³ For more information, visit <https://www.ewg.org/news-and-analysis/2019/07/it-s-time-designate-pfas-hazardous-substance>

³⁴ The Department Of Defense is a major source of PFAS pollution. See Melanie Benesh and Audrey Lothspeich, *Mapping PFAS Chemical Contamination at 106 U.S. Military Sites*, Environmental Working Group (March 6, 2019), <https://www.ewg.org/research/pfas-chemicals-contaminate-us-military-sites>

³⁵ See <https://www.ewg.org/news-and-analysis/2019/10/pfas-hazardous-designation-not-ban>

³⁶ Id.

³⁷ See https://amendments-rules.house.gov/amendments/LEVIMI_052_xml62519095109519.pdf. In addition, Congress should designate PFAS as “hazardous substances” under Sec. 3001 (42 U.S.C. § 6921) of the Solid Waste Disposal Act, better known as the Resource Conservation and Recovery Act, or RCRA. At a minimum, Congress should direct EPA to quickly provide guidance for the management of PFAS waste.



To better address contamination caused by military installations and other federal facilities, Congress should direct federal agencies to develop cooperative agreements with states to clean up contaminated sites, as proposed in H.R. 2626.³⁸ These agreements should require PFAS cleanup efforts to meet or exceed the most health-protective standards, including state standards, as proposed in H.R. 2626. If a cooperative agreement is not finalized within a year of a state request, DOD and other federal agencies responsible for PFAS contamination should be required to alert Congress.

Congress should also set a deadline for the development of a National Primary Water Drinking Regulation for PFAS, as proposed in H.R. 2377.³⁹ Many states have established or proposed drinking water standards for PFAS that protect vulnerable populations, such as infants, and that address all of the health risks posed by PFAS, such as damage to the immune system. But many states have not taken steps to reduce PFAS contamination in tap water, and EPA has consistently failed to address these threats.⁴⁰ Drinking water standards developed by EPA, as proposed in H.R. 2377, should be required to take vulnerable populations and all health effects into account and should build upon the progress being made by states. To help water utilities meet these standards, Congress should help share the cost of effective PFAS treatment technologies, as proposed in H.R. 2533.⁴¹ Designating PFAS as hazardous substances will help ensure that polluters share cleanup costs. However, Congress should also establish a fee system to ensure

³⁸ The PFAS Accountability Act of 2019, S. 1372, 116th Cong. (2019).

³⁹ The Protecting Drinking Water from PFAS Act of 2019, S. 1473, 116th Cong. (2019).

⁴⁰ EPA's voluntary PFAS stewardship program was launched in 2006. See Environmental Protection Agency, Fact Sheet: 2010/2015 PFOA Stewardship Program, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-20102015-pfoa-stewardship-program> (page last updated Aug. 9, 2018); EPA's first Long-Chain Perfluorinated Chemicals Action Plan was released in 2009. See Environmental Protection Agency, *Long-Chain Perfluorinated Chemicals (PFCs) Action Plan* (Dec. 30, 2009), https://www.epa.gov/sites/production/files/2016-01/documents/pfcs_action_plan1230_09.pdf. The most recent PFAS Action Plan pledges to propose a regulatory determination by the end of 2019 but does not commit to complete a National Primary Water Drinking Regulation. See Environmental Protection Agency, *EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan*, at 3 (Feb. 14, 2019), https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf.

⁴¹ For example, the Providing Financial Assistance for Safe (PFAS) Drinking Water Act of 2019, HR. 2533, would provide \$500 million in annual funding to implement PFAS treatment systems, and the Water Affordability, Transparency, Equity and Reliability (WATER) Act of 2019, H.R. 1417, would amend Drinking Water State Revolving Fund to provide grants to address PFAS contamination.



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that companies that have profited from PFAS pay their fair share of water treatment costs, as Chairman Rouda has proposed in H.R. 2570.⁴²

EWG is grateful for the opportunity to testify, and we look forward to working with you to address the PFAS contamination crisis.

⁴² H.R. 2750, the PFAS User Fee Act of 2019, would create a fee system to help share the cost of water treatment. Available at <https://www.govtrack.us/congress/bills/116/hr2570/text>



Attachment A

- [1950](#) – 3M mice study reveals that PFAS can build up in blood.
- [1956](#) – Stanford University study finds that PFAS bind to proteins in human blood.
- [1961](#) – DuPont toxicologist warns that PFAS chemicals enlarge rat and rabbit livers.
- [1962](#) – Volunteers who smoke PFAS-laced cigarettes get “polymer fume fever.”
- [1963](#) – PFAS deemed toxic in 3M technical manual.
- [1965](#) – DuPont rat study shows increased liver and kidney weight and increased spleen size.
- [1966](#) – FDA rejects DuPont food additive petition, citing liver studies.
- [1966](#) – 3M study finds PFAS cause “acute oral toxicity” in rats.
- [1970](#) – 3M warns Fire Journal that PFAS are toxic to fish.
- [1970](#) – DuPont scientists say PFAS are “highly toxic when inhaled.”
- [1973](#) – DuPont finds there is no safe level of exposure to PFAS in food packaging.
- [1975](#) – 3M informed that PFAS build up in human blood samples.
- [1975](#) – DuPont warns 3M about “toxic effects” of PFAS in food packaging.
- [1977](#) – 3M tests workers and animals to measure PFAS in blood.
- [1978](#) – 3M tests find lesions on spleen, lymph nodes and bone marrow on monkeys.
- [1978](#) – 3M concludes that PFOA and PFOS “should be regarded as toxic.”
- [1979](#) – DuPont survey of Washington Works employees finds possible liver damage.
- 1981 – [3M](#) and [DuPont](#) reassign women after animal studies reveal birth defects.
- [1983](#) – 3M identify PFAS’ potential harm to the immune system as cause for concern.
- [1984](#) – 3M documents rising fluorine levels in workers’ blood.
- [1984](#) – DuPont detects PFAS in the tap water in of nearby communities.
- [1987](#) – 3M PFOA animal study finds tumors.
- [1989](#) – 3M study finds elevated cancer rates among workers.
- [1990](#) – 3M study finds risk of testicular cancer.
- [1992](#) – DuPont study finds elevated cancer rates among workers.
- [1993](#) – Former 3M scientist finds male workers more likely to die from prostate cancer.
- [1995](#) – DuPont scientist expresses concern over long-term PFAS health effects.
- [1997](#) – DuPont study finds heightened cancer rates among workers at Washington Works plant.



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[1997](#) – 3M MSDS sheet issues cancer warning for PFOA product

[1998](#) – 3M scientists report that PFAS move through the food chain.

[1998](#) – 3M provides EPA evidence that PFAS accumulate in blood.

[1998](#) – 3M animal study finds liver damage.

[1999](#) – 3M scientist describes PFOS as “the most insidious pollutant since PCB.”

[2000](#) – 3M animal study finds increased liver size from exposure to PFOS