

# **TSCA PETITION FOR HEALTH AND ENVIRONMENTAL TESTING ON PFAS MANUFACTURED BY CHEMOURS IN FAYETTEVILLE, NORTH CAROLINA**

## ***Frequently Asked Questions (FAQs)***

### **1. Who are the petitioners?**

Petitioners are non-profit public health, environmental and environmental justice groups committed to protecting North Carolina communities and ecosystems from the threat of toxic pollution. They are Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, Democracy Green, the NC Black Alliance, and Toxic Free NC.

### **2. Why is the petition being filed?**

The petitioners are concerned that PFAS in drinking water and the environment are affecting the health of Cape Fear communities but there is little information about the health and environmental effects of these chemicals. For residents and their families, the inability to determine the health impacts of their historical, ongoing and future PFAS exposure is a deep source of concern. The petition asks the Environmental Protection Agency (EPA) to use its authority under the Toxic Substances Control Act (TSCA) to require the manufacturer of these chemicals, Chemours, to fund an extensive testing program that will ascertain the risks that Cape Fear communities face.

### **3. What are PFAS?**

Per- and Polyfluoroalkyl substances (or PFAS) are a class of chemicals that have common characteristics and are used in a wide variety of applications. PFAS have raised significant concern in the US and globally because of their persistence and potential to bio-accumulate, widespread presence in living organisms, products, and the environment, and demonstrated adverse health effects at low doses. Many communities across the US are struggling with PFAS contamination.

### **4. Who is Chemours?**

Chemours is a large international producer of PFAS that was spun off by DuPont in 2015. It operates a major production facility near Fayetteville, North Carolina. The plant is adjacent to the Cape Fear River upstream of the city of Wilmington, which is a significant population center in the Eastern part of the State. The city and surrounding communities use the Cape Fear River as a source of drinking water. PFAS have been manufactured and used at the facility since the 1970s.

### **5. How has Chemours Harmed the Cape Fear Watershed?**

In the last few years, several PFAS manufactured by Chemours have been identified in drinking water sources serving over a quarter of a million people in the Cape Fear watershed, in human blood and in environmental media, including air emissions, surface water, sediment, stormwater, groundwater and locally grown produce. Significant attention has been focused on the risks of “GenX” compounds, which Chemours commercialized in 2015 as a replacement for perfluorooctanoic acid (PFOA), after it was phased out because of serious health and environmental concerns. However, GenX is only one of many PFAS produced at the facility which have been shown to have actual or likely human exposure and

presence in the environment. Petitioners have identified 54 such PFAS based on studies by researchers and Chemours itself and there are likely hundreds of additional PFAS of unknown chemical composition that are present in the environment as well.

**6. What's the legal basis for requiring Chemours to conduct testing?**

Under TSCA section 4, EPA can issue test orders or rules requiring manufacturers to conduct health and environmental effects studies on their chemicals. This authority was included in the law because Congress recognized that inadequate data are available on most chemicals and that the responsibility for developing the information to assess chemical safety should rest with the companies who put these chemicals in commerce and cause people and the environment to be exposed to the risk of harm. TSCA sets a low bar for requiring testing. EPA need only show that there is a basis for concern about the harmful effects of the chemical, that exposure may be occurring and that insufficient data are available to determine whether the chemical presents an unreasonable risk.

**7. Do citizens have the right to petition EPA to require testing?**

Yes. Section 21 of TSCA authorizes members of the public to petition EPA to take action under several provisions of the law. This includes asking EPA to issue testing rules and orders under section 4. EPA must respond to petitions within 90 days and petitioners can take EPA to court if it denies the petition or fails to act.

**8. How were chemicals selected for testing?**

Petitioners and their technical advisors did an exhaustive search of the scientific literature and Chemours' chemical analyses of environmental releases, discharges and waste streams. Based on this search, 54 PFAS were identified that are attributable to the Chemours facility and have been detected in environmental media and/or people in the Cape Fear River watershed adjacent to and downstream of the plant site. These substances were assigned to two groups: Tier 1 (detection in human sera, food or drinking water) and Tier 2 (significant potential for human exposure based on detection in environmental media and other evidence).

**9. What is the justification under TSCA for requiring testing on the 54 PFAS?**

Leading authorities have recognized that, because of the similarities in persistence, mobility, and toxicity among PFAS, all members of the class have the potential to cause the same adverse effects as well-characterized compounds such as PFOA. Thus, the 54 substances warrant testing under TSCA based on their similarities to other well-studied PFAS and evidence of actual or likely human exposure.

**10. Have the 54 substances previously been tested?**

Some testing on GenX and a few other PFAS has been required by EPA and the State of North Carolina but these studies are limited and incomplete. No health or environmental effects testing has been conducted on the remainder of the 54 PFAS. Thus, for all 54 substances, we lack sufficient data to determine risks to the large exposed population within range of the Fayetteville facility and the surrounding ecosystem.

**11. What studies are you asking for?**

The petition outlines in detail the studies that should be conducted. These studies were selected to address the critical harmful effects that have been identified for PFOA, PFOS, and other studied PFAS. Studies on these compounds show an overlapping set of adverse effects, including cancer, hormone disruption, liver and kidney damage, developmental and reproductive harm, changes in serum lipid levels, and immune system toxicity. The proposed testing program includes studies to address these effects. More extensive studies (including 2-year cancer bioassays and multigenerational developmental and reproductive tests) would be conducted on the 14 Tier 1 substances in recognition of the strong evidence of direct and substantial human exposure.

**12. How does the testing program account for the fact that real-world exposure in the Cape Fear watershed is to a mixture of PFAS?**

In addition to testing on the 54 individual PFAS, animal studies would be conducted on three mixtures of PFAS representative of the groups of substances to which residents have been exposed through drinking water, human blood and other pathways. Also, a human health study would be conducted in the exposed community to evaluate past and current exposures in the Cape Fear watershed and associated health effects .

**13. Beyond health studies, what other testing would be required?**

The testing program would include ecological effects, fate and transport, and physical-chemical properties studies. These studies are important to understand ecological impacts of the 54 PFAS and how they behave and spread in the environment.

**14. Why hasn't EPA required this testing before?**

When Congress strengthened TSCA in 2016, it signaled that it wanted EPA to require more testing on chemicals of concern. Unfortunately, the current EPA leadership has failed to use the tools in the new law and virtually no testing has been required under section 4. This testing gap is a concern for the many chemicals in commerce that haven't been adequately tested but particularly for PFAS because of the large number of untested substances, their widespread exposure and buildup in people and the environment, and the evidence of harmful effects.

**15. How can we be sure the testing will be done objectively and independently?**

This is an important concern. To maximize the credibility of the data and key findings, the petition recommends that EPA contract with the National Academy of Sciences (NAS) to form an independent expert science panel with responsibility for overseeing all aspects of the testing program. The public and Chemours would have the opportunity to submit nominations for membership on the panel.

**16. Will Chemours continue to reduce human exposure and environmental releases while testing is underway?**

Chemours is required to reduce environmental releases of PFAS under the consent order issued by the State of North Carolina in February 2019. Because we know that all PFAS raise serious concerns, reducing human exposure to the 54 PFAS is imperative and should not be delayed while the testing proposed by petitioners is underway. At the same time, even if exposure is reduced, testing will remain essential because the 54 PFAS remain in drinking water and the environment and understanding the

health impacts of both ongoing and historical exposure is necessary to make decisions about how to protect exposed communities.

**17. Shouldn't the government be doing this research?**

While the federal government and academic institutions have an important role to play in PFAS research, they should not and cannot shoulder the entire testing burden. A full understanding of this large and problematic chemical class will be impossible unless industry contributes its sizable resources to determining their risks to human health and the environment.

**18. Should this testing be an excuse to delay legislative and regulatory action at the state and federal level to restrict production and use of the PFAS chemical class?**

Absolutely not. The testing requested in the petition is necessary to understand the effects of PFAS contamination from the Chemours facility on people and the environment in the Cape Fear area. The petitioners strongly believe that, regardless of the test results, PFAS chemicals should be addressed as a single class and all nonessential uses should be eliminated. Although industry agreed to stop using certain long-chain PFAS (PFOA & PFOS), they switched to short-chain PFAS (e.g., GenX), without meeting their responsibility to conduct the health and environmental testing necessary to determine the safety of these substitutes. Having failed to discharge this fundamental obligation, it is unconscionable for industry now to seek to block regulation of PFAS by hiding behind a lack of data. While we need more information to understand the health impacts of PFAS on populations already exposed, there is ample evidence to demonstrate that *all* PFAS have sufficient potential for serious and widespread harm to warrant eliminating future exposure from all but essential uses.

**19. What happens next?**

We plan to engage EPA and all stakeholders in a broad dialogue about the petition and how we can move forward to achieve its objectives.