



COMMONWEALTH OF PENNSYLVANIA  
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*Sent via email*

Administrator Michael Regan  
U.S. Environmental Protection Agency  
Assistant Administrator Michal Freedhoff  
Office of Chemical Safety and Pollution Prevention  
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Mail Codes 1101A, 7101M  
Washington D.C. 02460  
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RE: Use of PFAS in hydraulic fracturing and drilling operations

Dear Administrator Regan:

We, the Attorneys General from the Commonwealth of Pennsylvania, States of Illinois, Maine, Hawaii, Maryland, Minnesota, New Mexico, Oregon, Delaware, the New York City Law Department, and the Attorney General for the District of Columbia (“Attorneys General”), write to urge the U.S. Environmental Protection Agency (“EPA”) to take the below described steps to protect human health and the environment from the risks posed by the use of per- and polyfluoroalkyl substances (“PFAS”) in hydraulic fracturing and drilling operations. Notably and of concern to us, we recently learned of EPA approvals, in 2011, of three chemicals that were proposed for use in hydraulic fracturing and/or oil & gas drilling operations that contain PFAS or have the potential to degrade into perfluorinated products that are considered persistent, bioaccumulative, and toxic in the environment, for use in hydraulic fracturing.<sup>1</sup> Further, as follows, we ask EPA to respond to the below information requests.

It is widely known that PFAS pose an urgent public health and environmental threat faced by communities across the United States, including in our states.<sup>2</sup> These toxic “forever chemicals”

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<sup>1</sup> *EPA Approved Toxic Chemicals for Fracking a Decade Ago, New Files Show*, the New York Times (July 12, 2021). *Fracking’s use of EPA-approved toxic chemicals shows again that regulators prioritize industry over health*. Editorial, the Philadelphia Inquirer (July 15, 2021). Physicians for Social Responsibility (“PSR”). *Fracking with “Forever Chemicals.”* July 2021. In addition to these three chemicals, the 2021 PSR report and subsequent news articles revealed that PFAS or chemicals that degrade into PFAS were used in more than 1000 wells nationally. See <https://www.inquirer.com/opinion/editorials/fracking-pennsylvania-pfas-toxic-chemicals-water-20210805.html>

<sup>2</sup> See *EPA’s PFAS Strategic Roadmap: EPA’s commitments to Action 2021-2021*. Published in October 2021. [https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap\\_final-508.pdf](https://www.epa.gov/system/files/documents/2021-10/pfas-roadmap_final-508.pdf)

persist in the environment and accumulate in the human body and have been linked to a range of adverse human health and environmental effects. Our states are spending tens of millions of taxpayer dollars to protect our residents from PFAS by remediating PFAS contamination in drinking water, providing alternative drinking water supplies, testing the blood of residents of impacted communities, and determining the scope of contamination.

EPA's own research has found that hydraulic fracturing can impact drinking water resources through: large volume spills during the handling of hydraulic fracturing fluids and chemicals or produced water; injection of hydraulic fracturing fluids into wells with inadequate mechanical integrity; discharge of inadequately treated hydraulic fracturing wastewater; and disposal or storage of hydraulic fracturing wastewater in unlined pits.<sup>3</sup> Further, there are risks posed by the disposal of drill cuttings that can have up to 30% liquids from hydraulic fracturing fluids. These drill cutting may end up disposed of as solid waste in landfills, which leak overtime into ground water.<sup>4</sup>

A consent order EPA issued for three chemicals in 2011 ("2011 consent order") shows that EPA had concerns, supported by preliminary evidence, that under some conditions the approved chemicals could "degrade in the environment" into substances analogous to PFOA (perfluorooctanoic acid), could persist and bioaccumulate, and "be toxic to people, wild mammals, and birds."<sup>5</sup> PFOA is one of the well-studied and toxic PFAS, the manufacture and import of which has largely been phased out in the United States through EPA's own PFOA Stewardship Program. We are concerned that the presence of PFAS, perfluorinated degradation products, and various short-chain PFAS analogues, in hydraulic fracturing fluids and drilling fluids would increase the risks that our waters will be contaminated, given the persistent, bioaccumulative, and toxic nature of these "forever chemicals."

#### Follow Up Actions Requested:

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<sup>3</sup> U.S. EPA. Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/236F, 2016. *See also* Pennsylvania Department of Environmental Protection Water Supply Determination Letters, listing cases where DEP determined that a private water supply was impacted by oil & natural gas activities (not necessarily related to fracking) associated with both conventional and nonconventional wells that either resulted in diminution events or increase in contaminants beyond background levels. (DEP did not test for PFAS in these sampling events.) [https://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination\\_Letters/Regional\\_Determination\\_Letters.pdf](https://files.dep.state.pa.us/OilGas/BOGM/BOGMPortalFiles/OilGasReports/Determination_Letters/Regional_Determination_Letters.pdf). See also research article from 2015 published by the Proceedings of National Academy of Sciences, Llewellyn, Garth; Yoxheimer, D. et al, *Evaluating a groundwater supply contamination incident attributed to Marcellus Shale gas development*. 112 (20) 6325-6330; DOI:10.1073/pnas.1420279112 <https://www.pnas.org/content/112/20/6325>

<sup>4</sup> *Id.*, at 3-14, 3-15, 10-14. *See also* <https://wri.cals.cornell.edu/sites/wri.cals.cornell.edu/files/shared/documents/Wastewater%20Management%20050814.pdf>. According to data collected by the Pennsylvania Department of Environmental Protection, nearly all of the cuttings generated during Marcellus Shale development are disposed of in landfills.

<sup>5</sup> U.S. EPA Office of Pollution Prevention and Toxics. Regulation of New Chemical Substances Pending Development of Information. Premanufacture Notice Numbers: P-11-91, 92, and 93. Consent Order and Determinations Supporting Consent Order. (October 26, 2011).

In light of the above, we urge EPA to expeditiously use its expanded authority under the 2016 amendments to the Toxic Substances Control Act (“TSCA”) to review and reassess the allowance or approval of any chemicals – new or existing – that may be used in hydraulic fracturing and/or drilling operations that either contain PFAS<sup>6</sup> or have the potential to degrade into perfluorinated products. In its October 2021 PFAS Strategic Roadmap, EPA itself recognized the need to revisit past TSCA regulatory decisions to address those that are insufficiently protective of public health.<sup>7</sup> We agree with EPA and therefore urge EPA to include the use of chemicals for the purpose of hydraulic fracturing and/or drilling in its reassessments and updating of consent orders and/or significant new use rules as needed to protect public health and the environment from these inappropriate uses of PFAS.

We also urge EPA to close any TSCA loopholes allowing the use of PFAS without having these PFAS uses be subject to both rigorous reviews and appropriate safeguards. Since PFAS have been found to cause risks to public health and the environment at very low levels, EPA’s prior approvals of some PFAS entering the market through low-volume exemptions are inappropriate. We therefore request that EPA going forward no longer allow these and other exemptions and review and reassess such exemptions granted in the past.

We further urge EPA to reopen its rulemaking efforts under TSCA to obtain information on the chemical substances and mixtures used in hydraulic fracturing and/or drilling operations, first initiated through a 2014 Advance Notice of Proposed Rulemaking (ANPR), to provide increased transparency and data to assist in chemical evaluations.<sup>8</sup>

We finally urge EPA to take steps within its authority to allow for greater transparency regarding the prevalence of PFAS in liquids used in hydraulic fracturing and drilling. We request EPA exercise its TSCA data collection authority to require industry to share information about PFAS chemicals used in these operations, expected perfluorinated degradation products, and any associated health and safety studies. We also urge EPA to use its TSCA authority to review and reassess previous claims of Confidential Business Information (“CBI”) made by manufacturers or other entities related to these and other PFAS chemicals and uses and make public any information no longer entitled to CBI protection.

#### Information Request:

Additionally, we request a timely response to the following questions:

1. Please provide any and all documents that describe the process leading up to the decision in the 2011 consent order in which EPA allowed the commercial use of chemicals proposed for use in hydraulic fracturing and/or drilling that could degrade in the environment into substances analogous to PFOA. Include any documents that describe why the 2011 consent order authorized these uses of PFAS when, five years earlier, the Agency had launched in 2006 the PFOA Stewardship Program due to

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<sup>6</sup> For purposes of these requests for actions and information, the term PFAS includes substances containing at least one fully fluorinated carbon atom.

<sup>7</sup> See page 13 of EPA’s *PFAS Strategic Roadmap: EPA’s Commitments to Action 2021-2024*.

<sup>8</sup> <https://www.federalregister.gov/documents/2014/05/19/2014-11501/hydraulic-fracturing-chemicals-and-mixtures>

concerns about the impact of PFOA and other long-chain PFAS on human health and the environment. Please provide any documents that identify the persons who have knowledge of the facts and circumstances surrounding the 2011 consent order.

2. Please provide a list of all chemicals that EPA approved for use or otherwise may be used in hydraulic fracturing and/or drilling operations that either contain PFAS or have the potential to degrade into perfluorinated products.

3. As part of the 2011 consent order, EPA recommended additional testing to inform the Agency's evaluation of the human health and environmental risks of these chemicals. Please provide any and all documents regarding any additional testing. Please provide all documents related to any steps EPA has taken to enforce any of the requirements of the 2011 consent order.

4. The 2016 amendments to TSCA included expiration of most CBI claims after 10 years without reassertion and re-substantiation of the CBI claim by the information submitter. Please provide any and all documents related to any reassertion and re-substantiation of the CBI claims for the chemicals subject to the 2011 consent order.

5. In a 2014 ANPR on Hydraulic Fracturing Chemicals and Mixtures, EPA initiated a public participation process to seek comment on the information that should be reported or disclosed for hydraulic fracturing chemical substances and mixtures and the mechanism for obtaining this information.<sup>9</sup> Please provide any and all documents related to EPA's efforts to follow up on this proposed rulemaking.

6. In its PFAS Strategic Roadmap, EPA commits to pursuing a comprehensive approach to proactively prevent PFAS from entering the environment at levels that can adversely impact human health and the environment. Please provide any and all documents related to the application of this commitment to restricting the use of PFAS in hydraulic fracturing and/or drilling.

Thank you for your prompt attention to this matter. We acknowledge and appreciate the Agency's past research into the potential impacts of hydraulic fracturing and drilling on drinking water resources, as well as your continued work to investigate and reduce the risks posed by PFAS, notably as recently announced in EPA's PFAS Strategic Roadmap.

Sincerely,

JOSH SHAPIRO

*Attorney General  
Commonwealth Of Pennsylvania*

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<sup>9</sup> <https://www.federalregister.gov/documents/2014/05/19/2014-11501/hydraulic-fracturing-chemicals-and-mixtures>

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