Blue Ridge Environmental Defense League

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Office of Pollution Prevention and Toxics (OPPT)
Environmental Protection Agency
1200 Pennsylvania Ave. NW
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Docket ID No. EPA-HQ-TRI-2019-0375

Addition of Certain Per- and Polyfluoroalkyl Substances: Community Right-to-Know Toxic Chemical Release Reporting

To whom it may concern:

On behalf of the Blue Ridge Environmental Defense League and our members I am submitting comments on the EPA's Addition of Certain Per- and Polyfluoroalkyl Substances: Community Right-to-Know Toxic Chemical Release Reporting.

Recommendations

- The EPA must expand its TRI list to include the hundreds (thousands) of PFAS related chemicals.
- EPA must individually list these chemicals in the TRI so that citizens know exactly what is being dispersed into their communities.
- Because of the longevity of these chemicals in the environment and human body, thresholds must be set extremely low
- EPA must do its job as outlined in its mission: to protect human and environmental health. EPA must do its duty and regulate these chemicals.

EPA Mission and Purpose

The Environmental Protection Agency was established in December 1970 by President Richard Nixon. EPA's mission is to protect human and environmental health. The agency is responsible for creating standards and laws promoting the health of individuals and the environment. EPA regulates the manufacturing, processing, distribution, and use of chemicals and other

pollutants while managing programs to promote energy efficiency, environmental stewardship, sustainable growth, air and water quality, and pollution prevention.[1]

The question is not should EPA add the family of PFAS chemicals and their short-chain replacements such as GenX to the Right-to-Know TRI reports. That's a definite YES! The question is why has EPA taken so long to address these chemicals? Unfortunately, a lot of contamination to our drinking water sources and impacts to the public's health have already occurred.

EPA should include additional PFAS and PFAS-related chemicals – more than required by the National Defense Authorization Act

As the EPA knows, Section 7321 of the National Defense Authorization Act for Fiscal Year 2020 (NDAA)[2] requires EPA to list 160 per- and polyfluoroalkyl substances (PFAS) to the list of chemicals covered by the Toxics Release Inventory (TRI) under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). NDAA became law on December 20, 2019 and this requirement is effective January 1, 2020. [3] The EPA should expand this list of 160 contaminants as soon as possible.

As mentioned in our June 10, 2019 comments on Docket ID No. EPA-HQ-OLEM-2019-0229, Interim Recommendations for Addressing Groundwater Contaminated with PFOA and PFOS, there are approximately 4,000 – 5,000 chemicals in the PFAS (per- and polyfluoroalkyl substances) family.

NC Policy Watch reported in May of this year that "A year's worth of monitoring shows alarming levels of more than 17 types of PFAS have been detected in the groundwater and surface water at the Police & Fire Training Academy in southwest Charlotte…The 2018 annual groundwater monitoring report shows that in the 15 monitoring wells at the training center, cumulative totals of just two — PFOS and PFOA — ranged from 1,810 parts per trillion to 114,000 ppt. For all 17 types of PFAS, the cumulative totals in groundwater wells ranged from 21,136 to 654,420 ppt."[4]

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[1] https://www.investopedia.com/terms/e/environmental-protection-agency.asp and https://www.epa.gov/home/returning-epa-its-core-mission

[2] S.1790 - National Defense Authorization Act for Fiscal Year 2020, 116th Congress, 12/20/2019 - Became Public Law No: 116-92, https://www.congress.gov/bill/116th-congress/senate-bill/1790/text

[3] https://www.epa.gov/toxics-release-inventory-tri-program/addition-certain-pfas-tri-national-defense-authorization-act

[4] "PW exclusive: Toxic chemical contamination detected in Charlotte; NC lawmakers decline to act", Lisa Sorg, 5/17/2019; http://www.ncpolicywatch.com/2019/05/17/pw-exclusive-toxic-chemical-contamination-detected-in-charlotte-nc-lawmakers-decline-to-act/

PFAS contamination is far and wide and just looking at 160 of a possible 4,000 - 5,000 chemicals is extremely inefficient.

Per NDAA, within two years, EPA will be required to consider adding more PFAS to TRI reporting. We urge the EPA to act sooner than later – it's already late enough - to include on the TRI the hundreds (thousands) of PFAS not listed in the NDAA.

EPA should list chemicals individually

All chemicals should have individual listings. The public has the right-to-know what chemicals are being released in our communities. Industry and the government should have the courage to inform us of the exact chemicals that are being released.

North Carolina GenX contamination demonstrates why PFAS chemicals must be included in TRI

It is our understanding that per NDAA, GenX is one of the required substances that will be reported in the TRI beginning this year. We urge the EPA to add similar emerging contaminants such as PFAS short-chain replacements like GenX to the Right-to-Know reporting requirements.

The history of GenX in North Carolina, which is still unfolding, is a prime example of why these contaminants must be reported in the TRI. Just within the past three years, the chemical manufacturing company Chemours told local officials in Wilmington, NC that GenX had been dispersed into the Cape Fear River since 1980. The river supplies drinking water to 60,000 people in Wilmington. Decades had went by before anyone knew of these contaminants being discharged into their drinking water supply.

According to a CBS News report, the Cape Fear Public Utility Authority co-authored a three-year study on GenX's elevated levels in the Cape Fear River. However, those findings were never released to the public. As the report mentions, the Cape Fear Public Utility Authority's vice chair Jennifer Adams worked as a chemical engineer at DuPont from 1990 to 2001. Chemours is a spinoff of DuPont.

If that's not bad enough, according to the report, studies submitted to EPA between 2006 and 2013 show the chemical caused tumors and reproductive problems in lab animals.[5] It was not until June 14, 2017 that the North Carolina Department of Environmental Quality (NC DEQ) reported to the public that they had started an "investigation regarding reports of an

[5] N.C. drinking water tainted with chemical byproduct for decades?, CBS News, June 26, 2017, https://www.cbsnews.com/news/wilmington-nc-cape-fear-river-water-tainted-genx-dupont-chemours/

unregulated chemical in the Cape Fear River."[6] Currently, NC DEQ has a whole section on its website regarding its ongoing investigation into GenX contamination.[7]

WRAL-TV in Raleigh, NC also reported on the GenX contamination in the fall of 2019. WRAL reported that samples were taken in 2015 by North Carolina State University and the EPA but were not tested until recently. Those new tests indicated concentrations of PFAS as high as 130,000 parts per trillion, which is more than 900 times the 140 ppt that NC scientists set as a health goal for GenX.[8]

In a North Carolina Policy Watch article, which preceded the WRAL report, N.C. State researcher Detlef Knappe commented, "'That's the best estimate of what people in Wilmington were drinking for 37 years prior.'"[9]

A statement issued by the Cape Fear Public Utility Authority and reported in the NC Policy Watch article stated, "We're grateful for researchers such as Dr. Knappe, whose work continues to provide a more complete picture of how Chemours and DuPont chose to operate before regulators stepped in." It further stated, "Before the public outrage and regulatory scrutiny began in June 2017, the only thing Chemours said was done to address their PFAS discharges was 'additional water emissions abatement technology' they said was added in November 2013 – after researchers found GenX in the Cape Fear. The 130,000-parts-per-trillion sample mentioned by Dr. Knappe was taken in 2014."

Also, in the NC Policy Watch article they included a statement by NC DEQ. NC DEQ said, "DEQ's actions to stop the wastewater discharges and reduce GenX air emissions had an immediate impact as current sampling by DEQ and by the PFAST Network shows concentrations of PFOA and PFAS below the EPA lifetime Health Advisory Limit and concentrations of GenX below the DHHS [North Carolina Department of Health and Human Services] provisional health goal."

According to the U.S. Food and Drug Administration (FDA), PFAS chemicals have also been detected in produce grown within 10 miles of Chemours.[10] In a blatant display of disservice to U.S. citizens, the FDA did not publicly release their findings to residents living and shopping

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[6] https://deq.nc.gov/deq-dhhs-investigating-reports-unregulated-chemical-cape-fear-river
[7] https://deq.nc.gov/news/key-issues/genx-investigation/investigations-and-enforcement-actions
[8] Report: Extremely high levels of GenX-like chemicals in Wilmington drinking water for years, WRAL.com, Oct. 9, 2019, https://www.wral.com/report-extremely-high-levels-of-genx-like-chemicals-in-wilmington-drinking-water-for-years/18688129/
[9] BREAKING: New analysis indicates that toxics were present in Wilmington drinking water at extreme levels, Lisa Sorg, NC Policy Watch, Oct. 9, 2019, http://pulse.ncpolicywatch.org/2019/10/09/breaking-new-analysis-indicates-that-toxics-were-present-in-wilmington-drinking-water-at-extreme-levels/
[10] FDA: GenX, 14 types of perfluorinated compounds found in produce grown within 10 miles of Chemours, Lisa Sorg, NC Policy Watch, June 3, 2019, http://pulse.ncpolicywatch.org/2019/06/03/fda-genx-14-types-of-perfluorinated-compounds-found-in-produce-grown-within-10-miles-of-chemours/

near the Chemours facility in North Carolina. No, they shared their findings at an environmental conference in Finland. Fortunately, the national group Environmental Defense Fund obtained photos of those findings so the public would be informed. Subsequently, FDA posted their information.[11]

In November, NC Policy Watch also reported on students at Gray's Creek Elementary School in Cumberland County, NC who will remain drinking bottled water after tests showed drinking water wells contained PFAS and GenX. The report said the students have been drinking bottled water since 2017.[12]

PFAS have also been found in compost produced in Sampson County, NC.[13] Meanwhile another report documented how home buyers are purchasing homes unaware that their wells are contaminated with PFAS.[14] The local Cumberland County Board of Commissioners have had to allocate millions of dollars to extend water lines to area schools, which have been impacted by the PFAS/GenX contamination.

Since PFAS has not been a part of TRI during these years, residents whose drinking water comes from the Cape Fear River – such as the 60,000 people in Wilmington – have well exceeded their lifetime health limit.

EPA should set Thresholds low

Thresholds for these chemicals should be set as low as possible. PFAS and GenX are called "forever chemicals" because they don't break down in the environment. Repeat. They don't break down in the environment. Whether it's 70 ppt or 10 ppt being released, it doesn't break down.

According to her testimony before a congressional subcommittee, Associate Professor Jamie DeWitt, PhD, DABT described PFAS as "'forever chemicals' due to their persistence in the environment. They aren't readily broken down by sunlight, microbes, or other processes. We, as a scientific community, have not yet uncovered an easy way by which these chemicals can be degraded, so forever chemical is an appropriate description of PFAS. In addition, this class of

[11] Ibid.

[12] Because of PFAS contamination, Gray's Creek Elementary to remain on bottled water, Lisa Sorg, NC Policy Watch, Nov. 18, 2019, http://pulse.ncpolicywatch.org/2019/11/18/because-of-pfas-contamination-grays-creek-elementary-to-remain-on-bottled-water/

[13] DEQ finds 20 types of PFAS in compost headed for gardens, farms and playgrounds, Lisa Sorg, NC Policy Watch, May 28, 2019, http://pulse.ncpolicywatch.org/2019/05/28/deq-finds-20-types-of-pfas-in-compost-headed-for-gardens-farms-and-playgrounds/

[14] People are buying houses unaware of 'forever chemicals' in their well water, Greg Barnes, NC Health News, Jan. 6, 2020, https://www.northcarolinahealthnews.org/2020/01/06/people-are-buying-houses-unaware-of-forever-chemicals-in-their-well-water/

chemicals is highly mobile once released to the environment. PFAS have been found everywhere scientists have looked, from the Arctic circle to the Marianas Trench."[15]

Some reports indicate that nearly the entire U.S. population is walking around with PFAS and PFAS-like chemicals already in our bodies. These releases to the environment and our communities must be publicly known so we can better access the risks to our health.

For example, a Norwegian study looking at PFAS in toddlers found that toddlers had higher total PFAS concentrations than their mothers at delivery, toddlers' PFOS and PFOA were increasing by 3%–5% per month of breastfeeding, 24% of toddlers had PFNA concentrations > 10 times higher than their mothers, and toddlers' PFNA and PFUnDA were not related to maternal levels or breastfeeding.[16]

EPA has yet to set a standard for PFAS chemicals. However, in 2009 EPA published a provisional health advisory of 400 ppt for PFOA and 200 ppt for PFOS. Just seven years later, in 2016 EPA released a health advisory with 70 ppt, sum of PFOA and PFOS as the recommended limit. [17] The Agency for Toxic Substances and Disease Registry (ATSDR) has drafted Minimal Risk Levels (MRLs) for four PFAS related chemicals. ATSDR converted the MRLs into drinking water concentrations. These concentrations range as low as 14 ppt for PFOS for a child and 21 ppt for PFOA for a child.

ATSDR drafted drinking water concentration MRLs[18]

Contaminant	Adult	Child
PFOA	78 ppt	21 ppt
PFOS	52 ppt	14 ppt
PFHxS	517 ppt	140 ppt
PFNA	78 ppt	21 ppt

EPA has been slow to act

[15] Jamie DeWitt, PhD, DABT, Associate Professor, Department of Pharmacology & Toxicology, Brody School of Medicine at East Carolina University; Testimony; May 15, 2019; https://energycommerce.house.gov/committee-activity/hearings/hearing-on-protecting-americans-at-risk-of-pfas-contamination-exposure

[16] Exposure of Norwegian toddlers to perfluoroalkyl substances (PFAS): The association with breastfeeding and maternal PFAS concentrations, Eleni Papadopoulou, Azemira Sabaredzovic, Ellen Namork, Unni C. Nygaard, Berit Granum, Line S.Haug, Domain of Infection Control and Environmental Health, Norwegian Institute of Public Health, Lovisenberggata 8, 0456 Oslo, Norway, July 8, 2016

[17] PFAS in Drinking Water, Water Utility Board Update, City of Madison, WI, Feb. 5, 2019, https://www.cityofmadison.com/water/documents/WUB_20190205_slides.pdf and https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos

[18] https://www.atsdr.cdc.gov/pfas/docs/PFAS_MRL_HA-H.pdf

Lastly, during the current Virginia General Assembly there are a couple of PFAS related bills being considered. I recently watched the subcommittee hearing on these bills. It was evident that representatives are concerned and want this issue addressed, but they were also confused – confused because the state was having to take the lead. I attribute this to the slow response and lack of leadership and direction coming from the EPA. That's why we are seeing various states trying to address PFAS contamination. Because EPA has been reluctant and slow to act.

A year ago, nine states had set regulatory or guidance levels for PFAS related chemicals. These included New Jersey setting levels for some PFAS chemicals as low as 13 ppt, North Carolina releasing a health advisory for GenX at 140 ppt and California setting the sum of PFOA and PFOS at 70 ppt.[19]

In Summary

Per the recently signed into law, National Defense Authorization Act, EPA is being required to include some PFAS and PFAS-like contaminants in the Toxic Release Inventory. That has already been determined and is underway. While it's too late to prevent the severe damage that has been done to the Cape Fear watershed and to the health of area residents, EPA must act to save other communities from having to experience this turmoil. The EPA must expand this list to include the hundreds (thousands) of related chemicals. Due to the longevity of these chemicals in the environment and human body, thresholds should be set extremely low. To say we are disgusted with PFAS/GenX contamination would be an enormous understatement. The woefully inadequate response by governmental regulatory agencies that are supposed to protect human health and the environment must end.

Respectfully submitted,

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[19] PFAS in Drinking Water, Water Utility Board Update, City of Madison, WI, Feb. 5, 2019, https://www.cityofmadison.com/water/documents/WUB_20190205_slides.pdf