PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY
962 Wayne Ave • Suite 610 • Silver Spring, MD 20910

November 25, 2020

Martin Suuberg, Commissioner
Department of Environmental Protection
One Winter Street, 2nd Floor
Boston, MA 02108

RE: PFAS in Anvil 10+10

Dear Commissioner Suuberg,

Public Employees for Environmental Responsibility (PEER) has been working on per-and polyfluoroalkyl substances (PFAS) issues in Massachusetts for several years. We are client-driven, only taking cases brought to us by public employees working in environmental and health agencies, and our PFAS work has grown to include testing of commercial products, water, food, and other items, both in Massachusetts, and in other states around the country.

This fall, PEER conducted several tests for PFAS of a 2.5 gallon jug of Anvil 10+10, the pesticide used in the aerial spraying programs of Massachusetts and many other states. Our tests revealed that Anvil 10+10 contains roughly 250 parts per trillion (ppt) of perfluorooctanoic acid (PFOA), and 260 – 500 ppt of hexafluoropropylene oxide dimer acid (HFPO-DA), a GenX replacement for PFOA. Both these results are hovering around the detection limits of the laboratory's equipment, but there is no doubt that these PFAS are in the insecticide. While PFAS may be useful when added to pesticides as surfactants, dispersants, and anti-foaming agents, it is unclear whether the PFAS found in Anvil 10+10 is an ingredient added by the manufacturer, contained in one of the ingredients supplied to Anvil's manufacturer by other companies, or whether it is a contaminant from the manufacturing/storage process. Moreover, since we were only able to test for 36 PFAS out of the 9,252 on the U.S. Environmental Protection Agency's (EPA's) inventory,[1] it is impossible to know how many other PFAS might be in Anvil 10+10.

Last month, your staff at Massachusetts Department of Environmental Protection (MADEP) issued a rule regulating PFAS in drinking water. DEP's Maximum Contaminant Limit (MCL) is one of the strictest in the nation, and PEER is extremely supportive of the work your agency has been doing to protect the Commonwealth's citizens from these ubiquitous contaminants. As you are aware, PFAS are called "forever chemicals" since they do not break down in the

[1] https://comptox.epa.gov/dashboard/chemical_lists/pfasmaster

environment and build up in our blood stream. They are associated with a variety of ailments, including suppressed immune function, thyroid disease, testicular and kidney disease, cancers, and liver damage.

Many Massachusetts communities are struggling to find the funds to filter PFAS from their water supplies. The vast majority of these cities and towns do not know where the PFAS is coming from, as they have no Department of Defense facilities, industry, or fire-fighting training facilities nearby. While it is likely some of the contamination is coming from wastewater treatment plants (WWTPs) and consumer goods, it is also possible that some of the widespread contamination is coming from Massachusetts' aerial and ground-based spraying of Anvil 10+10. While PEER concedes it does not know how much of the PFAS in Anvil 10+10 is contaminating our water supplies, groundwater and soils, common sense dictates that it is a factor. In 2019, Massachusetts aerially sprayed 2.2 million acres of the state with Anvil 10+10, and, in 2020, sprayed more than 200,000 acres. Many more acres were sprayed from trucks, and Anvil 10+10 is also used in some home misting systems. Therefore, the potential for PFAS from Anvil 10+10 reaching our waters is high.

It is important to note that these PFAS are not listed as active ingredients in Anvil 10+10. PEER found a number of PFAS listed as approved inert ingredients on EPA's "Inert Finder" database, but PFOA and HFPO-DA do not appear to be approved ingredients. However, PEER also found several patents showing chemical companies using PFAS in both herbicides and insecticides, and recent peer-reviewed articles discuss the variety of pesticides that contain PFAS as either an active or an inert ingredient. Therefore, it is possible that other pesticides also contain PFAS, unbeknownst to DEP or the public.

Pesticide manufacturers usually withhold information from the public about inert ingredients as "trade secrets" or "proprietary" information. Therefore, it is conceivable that PFAS are added deliberately to pesticide formulations. Contrary to its self-congratulatory press releases, EPA has not taken PFAS contamination seriously, leaving states like Massachusetts to deal with a crisis that is not of their own making.

When PEER obtained its first positive PFAS results on Anvil 10+10, we immediately contacted DEP because of the far-reaching implications. MADEP independently tested nine samples of Anvil 10+10 from five different containers, and found eight different PFAS, including PFOA and PFOS. Some PFAS levels were over 700 ppt. As such, there appears to be no doubt that there are PFAS in the pesticide Massachusetts has chosen for mosquito control.

Given the widespread PFAS contamination throughout Massachusetts, PEER requests that DEP:

1) Cease the use of Anvil 10+10 unless it can be sure that it does not contain any PFAS;
2) Ensure that any pesticide used to replace Anvil 10+10 does not contain any PFAS; and,
3) Require pesticide companies to provide comprehensive tests of their products showing the absence of fluorinated chemistry before the Commonwealth allows the sale or use of such pesticides.

It is very possible that Massachusetts will have another outbreak of Eastern Equine Encephalitis (EEE) in the summer of 2021. As such, we hope that MADEP will be able to address this issue prior to using any other pesticide to combat mosquito-borne diseases.

PEER is grateful for MADEP's work on the PFAS contamination issue, and we are happy to assist MADEP in any way we can. Please do not hesitate to contact me if you have any questions.

Sincerely,

Tim Whitehouse
Executive Director