



Pacific PEER

Public Employees for Environmental Responsibility

December 4, 2020

Director Val Dolcini
California Department of Pesticide Regulation
1001 I Street, P.O. Box 4015
Sacramento, CA 95812-4015

Dear Director Dolcini:

Public Employees for Environmental Responsibility (PEER) is a service organization for public employees working on environmental or public health concerns. In this context, PEER has been working on per- and polyfluoroalkyl substances (PFAS) issues for years. Our PFAS work has grown over time to include testing of commercial products, water, food, and other items in 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 for mosquito control in California 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.

As you know, these detected levels are several times higher than California's recently established "response" levels for PFOA of 10 ppt and 40 ppt for PFOS in drinking water. The U.S. Environmental Protection Agency (EPA) has yet to promulgate limits but prescribes a 70 ppt Lifetime Health Advisory for PFOA and PFOS in drinking water. In addition, these two chemicals are on the state's Prop 65 list of chemicals requiring notification as a reproductive toxin at even lower levels than the state response levels.

As you are also aware, PFAS are called "forever chemicals" since they do not break down in the 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. The immune suppressive effect of PFAS is of particular concern to persons exposed to COVI-19, the flu, and other related diseases.

Significantly, PFAS are not listed as active ingredients in Anvil 10+10. PEER found PFAS listed as approved inert ingredients on EPA's "Inert Finder" database. EPA is not required to disclose many inert ingredients in pesticides, and manufacturers often withhold this information as "trade secrets" or "proprietary" information. Nor is the presence of PFAS disclosed in Anvil 10+10's DPR registration.

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



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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.EPA's inventory, it is impossible to know how many other PFAS might be in Anvil 10+10, which is currently registered for use as an insecticide by your department.

Many California communities are struggling to find the funds to filter PFAS from their water supplies. By some estimates, well water in more than 150 public water systems have already detected PFAS contamination. Those wells serve some 16 million residents, more than one-third of the state's population.

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 and consumer goods, it is also possible that some of the widespread contamination is coming from 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 California water supplies, groundwater and soils, common sense dictates that it is a factor. Besides aerially spraying, Anvil 10+10 is also sprayed from trucks, and Anvil 10+10 is also used in some home misting systems. Given all these uses, the potential for PFAS from Anvil 10+10 reaching adjacent waters – as well as residents and workers – is high.

Although PFAS are not listed as active ingredients in Anvil 10+10, PEER has found a number of PFAS listed as approved inert ingredients on EPA's "Inert Finder" database. In addition, 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 DPR or the public.

Moreover, since we were only able to test for 36 PFAS out of the 9,252 on the U.S. EPA's inventory, it is not known how many other PFAS might be in Anvil 10+10.

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.

When PEER obtained its first positive PFAS results on Anvil 10+10, we immediately contacted the Massachusetts Department of Environmental Protection (MADEP) because that state had approved Anvil 10+10 for use in that state's wide-ranging arbovirus control program. 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,



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there appears to be no doubt that there are PFAS in the pesticide Massachusetts has chosen (and California has approved) for mosquito control.

Given the widespread PFAS contamination throughout California, PEER requests that DPR:

- 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 DPR allows the sale or use of such pesticides.

The reason California has its own, stricter standards for pesticides is to protect its residents from adverse impacts flowing from lax federal regulation. In the case of PFAS, among other issues, U.S. EPA has not been up to the task. Its anemic “PFAS Action Plan” has left almost all of the hard, regulatory work to the states. PFAS control is yet another instance where California must step up to fill a serious federal public health void.

In short, many California communities are already struggling to remove PFAS from their drinking water. Yet, these same communities may be absorbing even more PFAS showered from the skies in insecticides sanctioned by the State of California.

For California’s PFAS control strategy to be effective it must be comprehensive and include all agencies within Cal/EPA. PEER is happy to assist DPR in any way we can. Please do not hesitate to contact me if you have any questions.

Sincerely,

Jeff Ruch
Pacific Director

Cc: Secretary for Environmental Protection Jared Blumenfeld