The DOD shipped nearly 2 million pounds from 25 states; Private entities also delivered materials to be burned

By Pat Elder
July 24, 2020

The New York State Department of Environmental Conservation (NYDEC) has released information on the sources of the PFAS toxic materials incinerated at the Norlite plant at Cohoes, New York. Norlite burned two million pounds of the toxins before the operation was shut down by the state in late 2019.

The Department of Defense through the Defense Logistics Agency, (DLA) is rushing to incinerate its remaining supplies of fire-fighting foam and associated
bulk materials containing highly fluorinated, toxic PFOS & PFOA chemicals. Incineration is incapable of completely breaking down the substances. Scientists argue the practice is “raining down a witch’s brew” of poisonous substances that are linked to a host of cancers.

225 shipments totaling 2.45 million pounds of foam and related waste, mostly from military installations, were sent in 55-gallon drums and other containers from 25 states to be incinerated at the Norlite facility.

The data covers shipments from 01/01/2018 to 12/30/2019.

81.5% of the 2.45 million pounds of the lethal substances originated from military installations. The remaining 461,600 pounds, or 18.5% of the total were shipped from non-military sources. They are described below.

The Norlite facility is owned by Tradebe Treatment and Recycling LLC, a firm with close ties to US Vice President Mike Pence. Tradebe is facing a lawsuit from Earthjustice to stop the incineration in New York and across the country. Tradebe is managing the incineration of millions of pounds of the substances in the eastern half of the country. Another company with ties to Pence, Heritage Environmental Services, LLC, is managing the incineration of PFAS throughout the western U.S.
Earthjustice sued the DOD in February, 2020 over its contracts to burn millions of pounds of firefighting foam and bulk loads containing PFOS and PFOA in incinerators across the country.

PFAS incineration has already occurred in: East Liverpool, Ohio; Arkadelphia and El Dorado, Arkansas; and Cohoes, New York. The contracts authorize PFAS incineration in other locations, including Port Arthur, Texas, and Sauget, Illinois. Earthjustice filed the lawsuit on behalf of several community groups and the Sierra Club, all of whom represent members in the communities where the DOD has directed PFAS to be incinerated.

Through its lawsuit, Earthjustice was able to verify that PFAS may be incinerated at nine facilities:

- Clean Harbors El Dorado, Arkansas
- Veolia Arkadelphia, Arkansas
- Veolia Sauget, Illinois
- Clean Harbors Kimball, Nebraska
We’ll briefly examine the history of the foams and their incineration, followed by an examination of key findings in the data.

History

For fifty years the Department of Defense has known the active ingredients in its fire-fighting foam contained toxic chemicals that threatened human health and the environment. The DOD justified the resulting disaster by pointing to the lives and machinery spared when fires are quickly snuffed out. A fire in a single aircraft hangar could destroy jet fighters worth $1 billion in a few minutes. Overhead foam suppression systems loaded with PFOA and PFOS, two long-chain, highly fluorinated chemicals, provided protection. It is particularly ironic that the Europeans and much of the world have shifted to the use of environmentally friendly, fluorine-free foams, or 3F to extinguish super-hot petroleum-based fires.

Exposure to PFOA has been linked to kidney and testicular cancer and thyroid problems, while exposure to PFOS is associated with decreased fertility and adverse developmental effects. Both are linked to elevated cholesterol and obesity in adults and decreased immune response in children. Virtually all Americans carry the toxins in their blood serum and all babies are born with the chemicals in their bodies.

The environmental calamity and human suffering resulting from the regular use of the foams in military training exercises never weighed heavily on the war planners. Instead, it was the fear of liability that prompted the Pentagon to phase out the 8-carbon chain fluorinated surfactants over the last few years in favor of similar, shorter chain compounds.

Feeling pressure from states and some members of Congress, the Pentagon identified 401 installations in March, 2018 that were known or suspected to have used the toxic foams. The White House and the EPA sought to block publication of the findings. One Trump administration aide warned it would cause a "public relations nightmare." Thanks to the Environmental Working Group, citizen
scientists, and activists across the country, the DOD now admits there are 678 military sites where PFAS contaminate groundwater or drinking water. The actual number is much higher because it fails to consider hundreds of locations worldwide. Germany and Japan are especially contaminated.

A DLA agent checks a shipment of toxic materials

In late 2018 the DOD started collecting the legacy from around the country. By March 2019, the DOD was saying the cleanup might cost $2 Billion, a tiny fraction of the eventual tab. The DOD has contaminated hundreds of municipal water systems across the country and around the world. It has poisoned rivers, lakes, and the sea, rendering seafood unsafe to eat. The clean-up cost of poisoned water systems in Orange County, California alone is likely to top $1 Billion while the DOD is responsible for much of the contamination.
Facing the potential for massive liability stemming from the use of the long chain PFAS foams, the Pentagon hurriedly devised a plan to incinerate its remaining stocks of its most lethal legacy foams. PFOS and PFOA and their replacements never break down so they can’t be sent to landfills like many other military-produced toxins. The Pentagon embraced the idea that incineration burns the chemicals - along with the liability, although burning the chemicals has created additional liability.

To complement the incineration, the Pentagon launched a campaign to convince the public that the shorter chain replacement foams called C6 have been thoroughly tested and are safe. The military addresses PFOS and PFOA but rarely mentions dozens of other, related PFAS chemicals that people near military installations are ingesting from the water they drink and the food they eat. The military says the chemicals are widely present across the country and that there’s no medical treatment for PFAS exposure. They say scientists are still learning about how exposure to PFAS might affect people’s health. They never mention the C word. They’re frequently launching investigations to determine “possible uses of the foams” on their installations. Meanwhile, local media is often hesitant to report on military contamination for fear of impacting their bottom line.

**Notable Findings from the data, by state**

**Connecticut**

31 shipments of foam and related materials containing 1.1 million pounds were sent from Connecticut labeled **“CT Pursuant to ER Per CGS22a-451”** They were all identified by the EPA ID # CTCESQG99999, or “Connecticut Conditionally Exempt Small Quantity Generator (CESQG).”

According to the Connecticut Department of Energy and Environmental Protection, ([DEEP](https://energy.ct.gov/)), “A CESQG generates the smallest amount of hazardous waste and as a result is the least-regulated type of hazardous waste generator. A generator qualifies as a CESQG if it meets all of the following conditions:

- Does not generate more than 100 kilograms (220 pounds) of hazardous waste per calendar month; and,
- never accumulates more than 1000 kilograms (2200 pounds) of hazardous waste at any one time; and,
• does not generate more than one kilogram (2.2 pounds) of acute hazardous waste per calendar month; and,
• does not accumulate more than one kilogram (2.2 pounds) of acute hazardous waste at any one time

For a typical liquid waste, a 55-gallon drum weighs about 440 pounds, meaning Connecticut shipped approximately 2,500 drums containing PFOS and PFOA, an average of 80 drums per shipment.

Citgo Petroleum Corporation shipped more than 45,000 pounds from Connecticut. The state sent a total of 1.4 million pounds of the toxins to Cohoes to be incinerated.

Signature Flight Support shipped 230,399 pounds. Signature provides jet aircraft fueling and is located at the Bradley International Airport in East Grandby. The EPA ID number associated with the seven shipments is CTCESQG99999, or “Connecticut Conditionally Exempt Small Quantity Generator.”

Pratt & Whitney’s main plant in East Hartford, Connecticut sent 25,856 pounds of PFAS-contaminated materials to Cohoes.

Massachusetts
Hepatochem, Inc. sent 40 pounds of PFAS materials to be incinerated in neighboring New York.

The only shipment from Massachusetts contained 40 pounds of the materials and was labeled with the **EPA ID # MV6175005285** in the name of Hepatochem, Inc. Although the EPA identifier did not check out, the number, 617-500-5285 is Hepatochem’s phone number. The company is a DNA Testing Center located in Beverly. According to the NIH [National Library of Medicine](https://www.nlm.nih.gov), both PFOS and PFOA cause damage to human DNA.

**Maryland**

The data released by New York confirmed the use of PFAS at Joint Base Andrews, Curtis Bay Coast Guard Station, Baltimore, and the Navy Support facility, Indian Head.

**Maine**

Bangor’s Air National Guard base sent 66,645 pounds of PFOS/PFOA materials to be incinerated at Cohoes. The base provides refueling capability for the United Air Force.
The following PFAS chemicals were found in the groundwater at the Bangor Air National Guard base:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFHPA</td>
<td>2,010</td>
</tr>
<tr>
<td>PFNA</td>
<td>361</td>
</tr>
<tr>
<td>PFHXS</td>
<td>21,200</td>
</tr>
<tr>
<td>PFBS</td>
<td>2,970</td>
</tr>
<tr>
<td>PFOA</td>
<td>2,420</td>
</tr>
<tr>
<td>PFOS</td>
<td>12,900</td>
</tr>
</tbody>
</table>

**Total** 41,861

Groundwater contained 15,320 ppt of PFOS and PFOA, 37% of the total PFAS found in the ground. Replacement chemicals, like PFHPA, PFNA, PFHXS, PFBS are also linked to cancer, never break down, and bioaccumulate, although these toxic chemicals are ignored by the military, Congress, and the courts. The EPA does not regulate PFAS chemicals.

**New Hampshire**

The Granite state sent 63,742 pounds to be incinerated. Of that total, Pease Air National Guard base delivered 62,142 pounds. New Hampshire has attracted national media attention because of the work of Testing for Pease, a community group that works to protect public health from PFAS contamination.
Andrea Amico, Michelle Dalton, and Alayna Davis are with the New Hampshire group, Testing for Pease.

The Public Service Company of New Hampshire (PSNH) (Eversource Energy) sent 1,600 pounds to be incinerated. PSNH is New Hampshire’s largest electric utility serving about 510,000 customers throughout the state.

New York

CESQGXXXX NYS DEC Region #4 shipped 880 pounds of the materials. (Conditionally Exempt Small Quantity Generator New York State Department of Environmental Conservation - Region 4) It’s not clear where the toxins originated.

Arc Terminals shipped 6,664 pounds to the Norlite facility in Cohoes, New York. Arc Terminals is located on Newtown Creek, just off the East River at 25 Paidge Ave, Brooklyn, NY. Zenith Energy acquired the facility in 2017.
The Keymark Corporation in Fonda, NY shipped 43,952 pounds of materials containing PFAS chemicals to Cohoes. Keymark uses Kynar 500 resin in its industrial processes. Kynar 500 resin is a polyvinylidene fluoride or PVDF that is used to coat aluminum, galvanized steel, and aluminized steel. PVDF is made from PFAS chemicals.

Hudson Valley Community College sent 9,624 pounds. Hudson Valley is a public community college in Troy, New York. The college’s Advanced Manufacturing Technology program teaches advanced machining processes, “covering an array of areas relating to the field of precision metal, composite and plastic manufacturing.” Aside from use in fire-fighting foam, PFAS chemicals are used in numerous industrial applications.
An IBM Airport Hangar located somewhere in New York shipped 6,552 pounds. The EPA ID number, “nyr000033365” provided by NYDEC was found not to exist.

**Pennsylvania**

The Raven Rock Mountain Complex sent two shipments totaling 1,132 pounds of the substances to Cohoes to be incinerated. Raven Rock has been called the "Underground Pentagon". The bunker has an emergency operation center for the Pentagon. It is located near Blue Ridge Summit, Pennsylvania, close to the Maryland line.

*The Underground Pentagon in Pennsylvania shipped toxic firefighting foam to Cohoes.*

**Vermont**
ENPRO Services of Williston, Vermont sent two shipments totaling 20,290 pounds of toxins. ENPRO is a hazardous waste storage facility. The facility is permitted to store up to 2,353 55-gallon drums (129,415 gallons) of hazardous wastes.


==============

Special thanks to Bloomberg Law for their ongoing coverage of this story and to Earthjustice for their persistent legal work.