

Incineration may spread, not break down PFAS

Preliminary data show soil and water near New York facility are contaminated

by *Cheryl Hogue* https://cen.acs.org/static/about/staff_landing/bioch.html

APRIL 27, 2020



Credit: David Bond/Bennington College

The Norlite facility, which incinerates hazardous waste, abuts a public housing complex in Cohoes, New York.

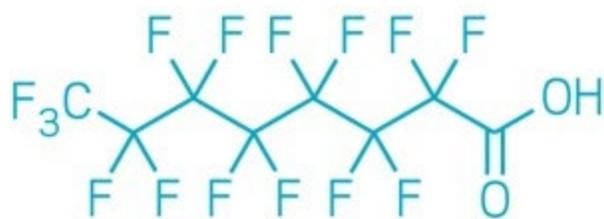
New data suggest that commercial incineration of per- and polyfluoroalkyl substances (PFAS) doesn't break down these hardy chemicals. Instead, it spreads them into surrounding areas.

(<https://cen.acs.org/sections/pfas.html>)

Soil and surface water near a commercial facility in Cohoes, New York, that has burned firefighting foam containing PFAS are tainted with these persistent substances, preliminary data released April 27 by Bennington College show.

In early March, a team of professors and students from the Vermont college traveled about 50 km (31 miles) from their campus to Cohoes, where they collected soil and surface water samples near the facility. A commercial laboratory analyzed the samples for the presence of PFAS.

(<https://www.bennington.edu/sites/default/files/sources/docs/Norlite%20Water%20Results%204.25.20.pdf>)



PFOA

The PFAS found in the samples are the same chemicals that were formerly used in firefighting foams, notably perfluorooctanoic acid (PFOA), says David Bond, a professor at Bennington College.

(<https://www.bennington.edu/academics/faculty/david-bond>)

The new data suggest that incineration of the PFAS-containing foam at the Cohoes facility is not breaking down the persistent chemicals but is “redistributing them into nearby poor and working-class neighborhoods,” Bond says.

“It’s the very definition of foolhardy to try to keep burning these things,” Bond says of PFAS. “By design, they resist thermal degradation.”

The sampling was part of research that the COVID-19 pandemic interrupted, Bond says. Investigators found the early results alarming and significant for public health so they opted to release them before publication. “It’s not ethical to sit on data like that,” Bond adds.

Norlite, a company that makes a ceramic aggregate material, operates the Cohoes facility, burning hazardous waste to fire two kilns. Norlite has voluntarily stopped accepting and processing firefighting foam, pending research by the US Environmental Protection Agency, says a statement from Tradebe an environmental services company of which Norlite is a subsidiary. Tradebe points out that Norlite burned the PFAS-containing foam in accordance with permits from the EPA and the New York Department of Environmental Conservation. (<http://www.norliteagg.com/>) (<https://www.tradebeusa.com/>)

The US military and nearby states have sent PFAS-containing firefighting foam to the Norlite plant. This facility is one of several across the US that environmental activists are asking a federal judge to shut down. A federal law enacted in December requires the Department of Defense to ensure that the hazardous waste destruction facilities it sends its PFAS materials to actually break down these persistent compounds. (<https://cen.acs.org/environment/persistent-pollutants/Groups-sue-US-military-stop/98/web/2020/02>) (<https://cen.acs.org/environment/persistent-pollutants/US-Congress-set-to-pass-handful-of-PFAS-controls/97/i48>)

CORRECTION

This article was revised on May 26, 2020, to reflect that the Norlite facility is not an incinerator. Instead, it burns hazardous waste to fire aggregate kilns.

Chemical & Engineering News

ISSN 0009-2347

Copyright © 2021 American Chemical Society