Ban all incinerations of PFAS in New York

By David Bond, Janet Foley and Tim Schroeder

A month ago, Bennington College shared preliminary data indicating the Norlite hazardous waste incinerator in Cohoes may be contaminating the Capital Region. Despite extensive infractions — including a new EPA fine last week — the Norlite furnaces are a preferred destination for a new class of toxins the chemical industry and U.S. military are eager to wash their hands of.

Norlite was contracted to dispose of stockpiles of the toxic firefighting foam known as AFFF. Harmful perfluorinated compounds like PFOS and PFNA — the same chemicals that poisoned Hoosick Falls and Newburgh — are key ingredients in AFFF. The unique chemical properties of PFAS compounds make them extremely efficient flame retardant and an unprecedented environmental threat.

Although incineration breaks down many hazardous chemicals, there is scant evidence that it eradicates PFAS. The effectiveness of incineration to destroy PFAS compounds is not well understood, according to 2019 EPA Technical Brief. Our grasp of the “thermal destructibility” of PFAS is sparse, thinly extrapolated and currently inoperable, the report said.

While the proper way to dispose of these “forever chemicals” is debated, the dangers they pose to human health is not. Exposure to trace amounts of the PFAS chemicals in AFFF is strongly linked to a host of cancers, developmental disorders, immune dysfunction and infertility. Several states, including New York, have banned the use of AFFF over health concerns.

Despite striking knowledge gaps and clear public health risks, Norlite poured hundreds of tanker cars full of AFFF into its furnaces in 2018 and 2019. A fundamental question hangs over this operation: If incineration is an unproven means of destroying these toxins, is Norlite solving the PFAS problem or simply emitting it into the Capital Region?

This question is neither unreasonable nor impossible to answer. The fact that it’s taken two years for this question to come to public light is a startling indictment of New York State Department of Environmental Conservation. The fact that we still don’t have an answer demonstrates just how poorly the disposal of these “forever chemicals” is being managed by New York state.

Given the significance of this question, Bennington College designed a research project to look at PFAS levels around Norlite. In March, we took three soil and four water samples from relatively undisturbed sites around the incinerator. Our results can be found at: www.bennington.edu/PFOA.

Our study is the first in the nation to analyze PFAS levels around a facility burning AFFF. Previous research, however, has examined PFAS contamination in areas of extensive AFFF use, like Air Force bases or firefighting camps. The pattern of PFAS contamination we found around Norlite resembles these sites. This distinct pattern differs from what we’ve found elsewhere in our region and declines with distance from the incinerator.

Far from destroying AFFF, the Norlite facility appears to be raining down a witch’s brew of toxic perfluorinated compounds onto the poor and working class neighborhoods of Cohoes.

Norlite looms over a public housing complex, home to 70 families. Residents complained to us of being “tear-gassed” in their homes and many have long-standing questions about what comes out of the stacks at Norlite.

A few hours after we shared our preliminary findings, DEC rejected them out of hand and refused our calls for more research, stating, “There is no basis to conduct additional sampling” at Norlite.

This is a striking assertion. Under the watchful eye of a full-time DEC monitor on site, Norlite burned at least 2 million pounds of AFFF with no stack tests or environmental monitoring to ensure that incineration was actually destroying these toxic chemicals. Is DEC now afraid of what it might find in Cohoes?

DEC’s untested faith in incineration now surpasses even industry. As internal emails reveal, Norlite requested deliveries of AFFF be paused earlier this year “to allow time for testing to confirm whether thermal destruction is a safe and effective method” of destroying PFAS compounds.

After we released our data, Tradebe, the conglomerate that owns Norlite, wrote to other incinerators asking if they might accept AFFF. All of them refused, as Tradebe put it, “based on the volatility and uncertainty of the destruction” of PFAS compounds by incineration.

A comprehensive investigation is now needed to determine the full extent of PFAS contamination around Norlite. And until there is scientific consensus about how to safely dispose of PFAS compounds, all incineration of PFAS compounds must be banned in New York state. Environmental justice and public health depend on it.

David Bond, Janet Foley and Tim Schroeder run the “Understanding PFOA” project at Bennington College. Funded by the National Science Foundation, this project links up the analytical resources of the college with public concerns about PFAS contamination.