



RADIOACTIVE WASTE ALERT

Athens County's Future Action Network aka ACFAN and Athens County Fracking Action Network



THE LAST BEACH CLEANUP



Michael Regan, EPA Administrator
Janet McCabe, Deputy Administrator
Debra Shore, EPA Region 5 Administrator
Adam Ortiz, EPA Region 3 Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

March 13, 2023

RE: Dioxins and the East Palestine Train Derailment

Dear Administrator Regan, Deputy Administrator McCabe, Regional Administrator Shore, and Regional Administrator Ortiz:

Although delayed, we welcome the U.S. Environmental Protection Agency (EPA)'s announcement on March 2, 2023 that it will now require Norfolk Southern to test for dioxins in the areas impacted by the East Palestine train derailment. We are writing to share our recommendations on how this testing should be conducted to improve transparency, rebuild public trust, and comprehensively address possible releases of dioxins from the disaster. We join Senators Sherrod Brown (D-OH) and J. D. Vance (R-OH) in urging EPA to require thorough testing for dioxins.

As you know, dioxins are extremely persistent bioaccumulative toxic (PBT) chemicals that break down very slowly, build up in the food chain and in our bodies, and can cause cancer and other serious health problems. In the [EPA's own words](#), "Dioxins are highly toxic and can cause cancer, reproductive and developmental problems, damage to the immune system, and can interfere with hormones." Indeed, dioxins are one of the most toxic chemicals known to humankind and have been targeted for global phase-out under the POPs Treaty. It was the primary contaminant in Agent Orange, the defoliant used in Vietnam, and a key contaminant at both Love Canal and Times Beach.

EPA must lead the dioxin sampling, not Norfolk Southern.

To date, Norfolk Southern has done an extremely poor job of building trust with the community of East Palestine and other communities impacted by the disaster. To ensure this testing is adequately conducted, and to rebuild public trust, we strongly recommend the U.S. EPA itself conduct the dioxin sampling or hire its own consultants to conduct the testing. Norfolk Southern should not be in charge of the dioxin sampling. This testing must be paid for by the responsible parties, not taxpayers.

The dioxin sampling plan must be transparent and released for public input.

Without comprehensive testing, the people in East Palestine and other communities in Ohio and Pennsylvania will not know the extent to which dioxins are an issue. To build trust and confidence in the results, a transparent process for developing a sampling plan needs to be the next step. The sampling plan must identify and state:

- Goals and objective of the sampling plan;
- What environmental media – soil, dust, animals, water, sediment, air – will be sampled;
- Sample locations for each medium type; It must include communities that were in the path of the plume.
- The number of samples that will be collected for each medium type;

- Sample collection procedures for each medium type;
- Detection limits for each medium type;
- Analytical procedures for each medium type;
- Which suite of dioxins will be analyzed. Total polychlorinated dioxins and furans should be measured as well as PCBs, especially the dioxin-like PCBs;
- Details on quality control/quality assurance procedures; and
- What analytical laboratory will analyze the samples.

The proposed sampling plan should be made public and given to area residents to review and comment on before the testing begins.

All sampling data and test results should be made available to the public for review in a transparent and easily accessible format. This information must be accessible for review, given the need for results to be meaningful to impacted communities as well as to build trust through transparent action.

The dioxin sampling plan must be comprehensive.

Responders reportedly punctured and burned more than 115,000 gallons of vinyl chloride in uncontrolled conditions for numerous days, making it likely that dioxins and related chlorinated substances were formed and released into the communities surrounding the disaster site. Four train cars of polyvinyl chloride plastic also burned, also likely forming dioxins. There have been elevated levels of dioxins released in other major accidents involving chlorinated chemicals—from the [2004 explosion at the PVC plant](#) in Illiopolis, Illinois, to the [1997 Plastimet PVC recycling fire](#) in Ontario, to the 2001 [World Trade Center attacks](#). A [study](#) of a European train carrying vinyl chloride that derailed and burned found background dioxin values measured in soils and plants generally in the range of 20 ng TEQ/kg in the surrounding area but increased to 8300 ng at the very seat of the fire. Producers of PVC and vinyl chloride monomer report releasing dioxins. Oxy Vinyls' vinyl chloride monomer (VCM) plant in Texas reported the greatest releases of dioxins compared to any other facility in the country, [according to the EPA 2021 TRI dioxin factsheet](#).

The EPA must work to evaluate whether elevated levels of dioxins may have been released and contaminated various environmental media, not just soil. **The EPA must develop a comprehensive multimedia testing program into the possible release of dioxins, other chlorinated ring compounds, and other toxic byproducts from the disaster.** We recommend sampling for dioxin and other chlorinated ring compounds (such as chlorinated PAHs) is conducted:

- In soils at homes, parks, schools, farms, and other locations downwind of the derailment;
- In indoor dust and surfaces inside homes and other buildings downwind of the derailment;
- In farm animals, milk, and chicken eggs in farms that may be impacted by the derailment; and
- In sediments, fish, salamanders (e.g. [endangered Hellbender salamanders in OH](#)), and other aquatic life including vegetation.
- In wildlife in the area, including birds and deer, which may be hunted

We are concerned that EPA may be overly reliant on samples for “indicator chemicals” such as chlorobenzenes and chlorophenols. In its March 2nd press release, EPA stated that: “monitoring for indicator chemicals has suggested a low probability for release of dioxin from this incident.” This is concerning for a few reasons. According to the EPA’s website, [Soil and Sediment Sampling Data: East Palestine, Ohio Train Derailment | US EPA](#), the reporting limit for chlorophenols (and dibenzofurans, a close relative of dioxins) is 53-65 mg/kg of soil or sediment. For chlorobenzenes, the reporting limit is

much lower at 0.05-0.06 mg/kg. As EPA scientists are undoubtedly aware, chlorobenzenes are much more volatile than chlorophenols or dioxins. So, we would expect that any chlorobenzenes that formed would have evaporated from the soil. Dioxins, however, are persistent in soil and sediments and are toxic at extremely low levels. EPA's soil screening level for dioxin is 1 ppb and the EPA has previously proposed [stringent preliminary remediation goals \(PRGs\) for dioxins at contaminated sites](#) at 72 PPT TEQ for residential soil (for non-cancer effects) and were also considering 3.7 PPT TEQ for residential soil (for cancer effects). We need soil/sediment testing in E Palestine at much lower levels of detection than 50-60 mg/kg.

Finally, we recommend the EPA work with other agencies to provide medical monitoring for impacted communities, especially East Palestine and those in the combustion plume, that desire it.

Communities surrounding and downwind of the derailment have a right to know whether the fire resulted in elevated concentrations of dioxins. The testing must be transparent and comprehensive. This would help demonstrate EPA's commitment to comprehensively responding to this disaster, rebuilding trust with East Palestine and other impacted communities, and advancing environmental justice.

We request an opportunity to meet with you. Please contact Mike Schade at mschade@toxicfreefuture.org / 646.783.3477 to arrange a mutually convenient time.

Sincerely,

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