

Draft Ongoing Monitoring Efforts Associated with East Palestine Train Derailment

On February 3, 2023, a train derailed in East Palestine, Ohio. That train was carrying several cars containing hazardous substances. On February 6, residents in both Ohio and Pennsylvania were evacuated from their homes to protect their health and safety as Norfolk Southern conducted a vent and burn due to concerns over a potential uncontrolled explosion of train cars carrying vinyl chloride.

As a result of this incident, monitoring at the site is extensive and ongoing. Current air sampling and monitoring efforts are robust and substantial, using sorbent tubes, summa canisters, the EPA Trace Atmospheric Gas Analyzer (TAGA) bus, passive badges, and more. All of these efforts, as well as mitigation efforts at the site have been used to protect the health and safety of residents and responders. While the TAGA bus, which has been on location since at least March 5, has reported some elevated readings above the 20 ppb intermediate exposure threshold, these have been largely related to work being conducted directly at the site's cleanup efforts, and usually only within a short distance (<100 feet) from the work being done. Additionally, in the event an exceedance is met for an extended period of time, emission mitigation methods are utilized at the site during excavation activities.

However, in the first weeks of the response, air monitoring was less robust with fewer monitoring stations and fewer monitoring technology options. As part of the early monitoring process, handheld detection devices and portable gas detection devices (called photoionization detectors or PIDs) were used to identify the presence of chemicals including vinyl chloride and n-butyl acrylate, two of the chemicals of concern in the derailment. More information is available for [vinyl chloride](#) and [n-butyl acrylate](#) at the linked websites. PIDs do not collect or determine individual chemical concentrations, only total VOCs. However, federal and state officials learned that the PIDs may not have been sensitive enough to measure one chemical of concern, n-butyl acrylate, at the public health air screening threshold for health and safety set for that chemical. There is now uncertainty as to whether the results provided by the PIDs were representative of any potential chemical exposure to homes or in the community, but federal officials are working with the manufacturer to obtain more information about the PIDs in relation to n-butyl acrylate measurement.

Federal agencies including the EPA and Agency for Toxic Substances and Disease Registry/CDC (ATSDR), as well as state agencies in Ohio and Pennsylvania are committed to protecting the health and safety of residents.

At this point in management of the incident, people are past the acute event and exposures. Health officials continue to support and provide resources to those who are reporting symptoms, and there is no testing or treatment recommended related to specific chemical exposures.

The Assessment of Chemical Exposure (ACE) survey is a way for the community to inform public health partners of their direct impacts from this event. Surveys kicked off for residents of Ohio on February 21, for Pennsylvania on February 26 and for first responders on March 5. All three ACE surveys will continue until March 31, 2023, at which time additional surveys will be considered. Public health agencies are strongly encouraging all residents in the area to complete the ACE survey.

While the ACE survey is still ongoing, preliminary information from residents who already took the survey included symptoms such as headaches, cough, and eye irritation. Similarly, first responders who already completed the survey included symptoms such as runny nose, cough, and skin rashes. These symptoms are consistent with what would be expected from exposure to the chemicals, including vinyl chloride, butyl acrylate, and others released during and immediately following the derailment. Mental health conditions such as anxiety and difficulty sleeping were also frequently reported by ACE participants. ACE data are consistent with OH and PA Poison Control Center data.

We want you to know that your voices have been heard. No long-term effects are expected from any potential short-term exposure. However, because n-butyl acrylate is a “sensitizer,” repeated exposure may increase further sensitivity to this chemical or class of “acrylate” chemicals. Further, individuals with pre-existing respiratory conditions, such as asthma, emphysema, and chronic obstructive pulmonary disease (COPD), may be more sensitive to exposure to this class of chemicals or this type of exposure may exacerbate pre-existing conditions.

While there are no specific treatments for exposure to this chemical, medical professionals may be able to treat any symptoms that have occurred or are occurring due to exposure and may suggest specific follow-up for lingering symptoms. Members of the public are recommended to contact their primary care physician or visit a clinic if they have health concerns. If you have specific questions about potential exposures to chemicals, you can call the Poison Control Center (made up of Pittsburgh and Ohio poison centers) incident hotline at **1-877-603-0170**. Also, if you have not done so already, completing the ACE survey is an effective way to share your experiences and help inform public health agencies and contribute to the data that in turn informs the ongoing incident response.

To complete the ACE survey by March 31, 2023:

For Ohio residents

- Online at: https://redcap.link/OH_Health_Assessment
- By walk-in (no appointment necessary) at the OH Clinic. For hours of operation, please call 234-564-7755 or 234-564-7888. This clinic will be moving to a permanent location to support the community for an ongoing basis.

For Pennsylvania residents

- Online at: bit.ly/derailmentsurveypa
- Contact the PA Health Resource Center for more information at 1-877-PA-HEALTH (1-877-724-3258)

For first responders

- First responders living in OH AND federal responders (including contractors): <https://redcap.link/u53witdy>
- First responders living in PA and WV: bit.ly/derailmentsurveypa

For more information on the ACE, email: ATSDRACE@cdc.gov

It is natural to feel stress, anxiety, grief, and worry during and after an emergency. There are resources available to help:

- For immediate assistance, CALL or TEXT the Substance Abuse and Recovery Health Services Administration (SAMHSA) [Disaster Distress Helpline](https://www.samhsa.gov/2k19/disaster-distress-helpline) at 1-800-985-5990 (press 2 for Spanish).
- [Ohio's CareLine](https://www.ohio.gov/ohio-careline) can offer free, confidential, and emotional support with a trained specialist. Call 1-800-720-9616 to connect.
- [Pennsylvania's Support & Referral Helpline](https://www.pennsylvania.gov/support-referral-helpline) connects Pennsylvanians with mental and emotional support and to local resources. Call 855-284-2494 (TTY: 724-631-5600).
- For more information on managing stress, visit: [Community Stress Fact Sheet | ATSDR \(cdc.gov\)](https://www.cdc.gov/atsdr/community-stress-fact-sheet)

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