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Update to EPA Report Submitted Pursuant to Section 2(b) of Executive Order 14108

***Executive Order 14108 on Ensuring the People of East
Palestine Are Protected Now and in the Future¹***

December 22, 2024

¹ See 88 FR 66265 (9/26/23).

Introduction

On September 20, 2023, President Joseph Biden issued Executive Order 14108 (*Executive Order on Ensuring the People of East Palestine Are Protected Now and in the Future*). The order directed EPA to provide a report to the President within 30 days on the cleanup efforts, on Norfolk Southern's compliance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) unilateral administrative order to address the imminent and substantial endangerment caused by the company's derailment, and on the status of air, soil, and water monitoring. EPA was also directed to provide the President with an updated report every 60 days until all cleanup, assessment, and monitoring work required by EPA's order have been completed. This report is the seventh update in the series and the eighth report overall. It provides updates on activities and developments since EPA's last report (October 23, 2024).

EPA's oversight of the unprecedented cleanup of contaminated soil in East Palestine is nearing completion. In October 2023, the agency announced that the major soil cleanup was complete. EPA then began a "double-check" of the cleanup work, sampling areas where contamination was removed or staged. More than 2,500 samples were taken during this confirmation sampling effort, which is now also complete. Any remaining derailment contamination found during the confirmation sampling has been or will soon be addressed, closing this chapter of the cleanup.

The numbers have been staggering. In less than two years, 219,823 tons of contaminated soil have been removed. In one cleanup site location – Brave Industries – 60,000 tons of contaminated soil were removed, with excavators digging down to 14 feet in some places. During the cleanup, more than 115 million air quality data points were collected, more than 50 million gallons of contaminated water have been collected and managed, and 83 homes were cleaned. And more than 400 EPA employees have deployed to the site, making this one of the largest emergency response cleanups in EPA history.

Over the course of the emergency response and cleanup, EPA has prioritized community outreach and involvement. The EPA Welcome Center in downtown East Palestine remains open and has received more than 1,100 visitors. EPA has logged over 1,300 calls to its information hotline. Currently, 8,000 households receive our newsletter. The agency worked with local high school students to teach them about EPA's work on-site and loaned them air sensors to measure particulate matter at home, in school and outdoors. Over almost two years, EPA has partnered with local and state officials, and worked with community leaders and residents to earn the trust of the community.

As of December 2024, work continues to address remaining derailment contamination found by the confirmatory sampling and continues on sediment cleanup assessment in the creeks. Although the cleanup is nearing completion, the United States Environmental Protection Agency remains in East Palestine and will be there as long as necessary to protect human health and the environment in East Palestine and nearby communities.

(Photos of cleanup activities throughout the last two years can be found at the end of this report.)

Status of Cleanup Efforts

As of mid-December, cleanup operations are nearing completion and may be finished in early 2025. EPA has completed oversight of the assessment and cleanup of contaminated/oiled sediments in Sulphur and Leslie Runs and the confirmatory soil sampling at the derailment site and other adjacent areas – a "double-check" to ensure cleanup was successful and contamination has not spread due to any cleanup

activities. Approximately 15 small areas of derailment contamination identified by site-wide confirmation sampling across the 35-acre site have been addressed. In addition, Norfolk Southern has been directed to fully delineate and address the eastern area of the site near the Pennsylvania border where sampling conducted earlier in the year showed low levels of contamination, primarily of one released chemical, 2-butoxyethanol, which is used in some cleaning products and as a food additive. Technical complexities in this area pose challenges since they include areas extending near the railroad tracks and include a wetland. Evaluation and analysis of the collected environmental data is ongoing and, along with engineering design, that will guide development of a final strategy to mitigate the remaining residual contamination.

The latest round of quarterly stream reassessments, required by EPA's Clean Water Act order, began in early October. Review of sediment reassessment data for Sulphur and Leslie Runs remains underway, as does the review and evaluation of thousands of analytical reports generated by the final sitewide confirmation sampling effort. Site-wide confirmatory sampling is complete, and large sections of the cleanup site have been cleared, restored with clean topsoil, and seeded with new grass. Current site priorities include: final cleanup of the east end area, restoration of previously-excavated areas along the north and south tracks, and in areas previously used for water storage infrastructure; report for sitewide confirmation sampling effort and continued monitoring of the creeks and groundwater, with continued evaluation of sediment and water data.

Other actions

Other actions currently performed by Norfolk Southern under EPA direction include:

- Temporary storage, transportation, and disposal of wastewater from the site.
- Continued groundwater and sentinel well sampling.
- Monitoring drinking water through private and public water supply sampling.
- Continued downstream creek sampling to determine system recovery.
- Community and worker air monitoring, sampling, and analysis at derailment-related work zones.
- Ongoing community engagement.

More than 219,823 tons of contaminated soil and more than 74 million gallons of contaminated liquid have been shipped off-site for disposal. To date, EPA, its state and local partners¹, and Norfolk Southern have collected more than 65,000 samples, including: more than 37,000 air samples, more than 5,000 groundwater samples, more than 1,200 sediment samples, more than 200 sheen samples, more than 10,000 soil samples, more than 1,700 solid waste samples, more than 4,800 surface water samples, and more than 4,300 wastewater samples. Available data continue to show that air contaminants of concern (vinyl chloride and n-butyl acrylate) have not been detected at sustained levels in the air in the affected communities since the evacuation order was lifted on February 8, 2023. Almost no contaminants² related to the derailment have been detected at levels of concern in water in surface streams since early

¹ Ohio EPA, Columbiana County Health Department, and the Pennsylvania Department of Environmental Protection.

²While almost no contamination related to the derailment has been detected in the surface waters, oil and CWA hazardous substances have been detected in the sheen and sediments. EPA is evaluating data related to Polyaromatic Hydrocarbons (PAHs) in the sediment to determine if certain elevated detections are attributable to the derailment or to historical pollution.

May. To date, sampling indicates that raw water and treated municipal drinking water and residential groundwater wells have not been negatively affected by chemicals associated with the derailment.

Status of Norfolk Southern's Compliance with Unilateral Orders

On February 21, 2023, EPA issued a CERCLA unilateral administrative order³ to Norfolk Southern, ordering the company to conduct all necessary actions associated with the cleanup of the derailment. EPA continues to conduct oversight and believes Norfolk Southern is in compliance with the order.⁴

On October 18, 2023, EPA issued a Clean Water Act section 311 unilateral administrative order to Norfolk Southern, requiring the company to remove contaminated sediments in culverted areas of Sulphur Run and to further delineate, characterize, and, as necessary, remove oil and Clean Water Act hazardous substances from the sediments in Leslie and Sulphur Runs.⁵ EPA continues to closely monitor and evaluate Norfolk Southern's compliance with this order and all approved work plans. EPA continues to conduct oversight and believes Norfolk Southern is in compliance with the order.⁶

Proposed Settlement with Norfolk Southern

On March 30, 2023, the Department of Justice filed a complaint on behalf of the EPA alleging claims under sections 309 and 311 of the Clean Water Act and sections 107 and 113 of CERCLA against Norfolk Southern Railway and Norfolk Southern Corporation related to the derailment of Train 32N.

On May 23, 2024, the United States announced a settlement with Norfolk Southern resolving the allegations in the complaint. The proposed settlement is valued at over \$350 million and holds the company accountable to address and pay for the damage to the environment and natural resources caused by the derailment. More details about the proposed consent decree are on [EPA's website](#).

In addition, the consent decree requires Norfolk Southern to undertake projects to improve the safety of transporting hazardous materials by rail, including the installation of additional devices to detect overheated wheel bearings early enough to prevent derailments like the one that happened in East Palestine. Finally, the consent decree contains several important initiatives the Norfolk Southern must develop and implement that are designed to improve emergency preparedness and response for train derailments involving hazardous materials.

Public comment on the proposed settlement closed on August 2, 2024.⁷ On October 10, the U.S. Department of Justice (DOJ) filed a motion asking the court to sign and enter the proposed settlement with Norfolk Southern. Along with the motion, DOJ provided the court with responses to all public comments received on the proposed settlement, as well as supporting declarations. The motion remains pending.

³ The unilateral administrative order was amended by EPA on March 27, 2023. This amendment made several minor changes to the order.

⁴ EPA's compliance evaluation is current as of October 20, 2024.

⁵ The effective date of the Clean Water Act order is October 18 – the date Norfolk Southern received the order.

⁶ EPA's compliance evaluation is current as of October 20, 2024.

⁷ The public comment period was originally for a 30 day period, but in response to a request from the State of Ohio, the Department of Justice extended the public comment period for an additional 35 days.

<https://www.justice.gov/enrd/media/1356021/dl?inline>

Status of Air, Soil, Surface Water, Groundwater, and Drinking Water

No significant update to report. The status of air, soil, surface water, groundwater, and drinking water has not changed significantly since October. Air monitoring and sampling still occur as necessary during all invasive derailment-related cleanup activities at the specific location of that work. Overall, more than 115 million air monitoring data points, and more than 65,000 samples across all media (air, water, and soil) have now been collected. Since the evacuation order was lifted on February 8, 2023, no sustained air monitoring or analytical results for the contaminants of concern in air (vinyl chloride and n-butyl acrylate) have been found above screening levels established for the site. Ongoing data collection and scientific review continue to show that residents of East Palestine are not at risk from impacted surface water, soil, or air from the derailment.

Community and Public Engagement

EPA remains committed to robust community engagement, transparency, and timely, effective communications to the residents of East Palestine and other affected areas in both Ohio and Pennsylvania. In February 2023, EPA opened a Community Welcome Center in East Palestine to ensure that community members would be able to meet face-to-face with Agency staff to ask questions and learn about the response. Originally open 12 hours a day, 7 days a week, the Welcome Center has had more than 1,100 visitors and received more than 1,400 phone calls. As of October 2024, the Welcome Center remains open by appointment. To make appointments or to ask questions, residents can call EPA's information line at (330) 775-6517. Questions can also be sent to r5_eastpalestine@epa.gov. EPA continues to regularly interact with community members and address questions and input to the on-going cleanup process.

Throughout the response, the agency's outreach strategy has been informed by input from a stakeholder group that the agency helped organize – a community-based network of more than 50 trusted community leaders representing civic, faith-based, local government, and non-profit organizations. EPA continues to host meetings with this group twice a month. Typically, more than 15 members attend each meeting.

EPA staff have held or attended over 40 public meetings and community events – from public meetings to booths at local fairs – to share updates and answer questions about the derailment and EPA's cleanup activities.

Since March 2023, EPA has produced and distributed a community newsletter to residents in Ohio and Pennsylvania to provide updates on site activities and answer key questions. More than 8,000 area residents receive each newsletter. The newsletter is now distributed on an occasional basis, as significant updates become available. EPA's [website](#) include dozens of documents and photos, more than 60 videos, and dashboards and maps to display monitoring and sampling data in an accessible format.

Remaining Timeline and Conclusion

Based on the latest estimates, EPA anticipates that the following significant cleanup operations will continue throughout the remainder of 2024 and carry into 2025:

- Plans to finish restoring the natural flow of water from the derailment site into Sulphur Run continue to be systematically implemented. As of December 2024, natural flow from 15 of 15 sub-watersheds has been restored, or 100% of site acreage.

- Stream sediment cleanup for oil sheens was completed in June. Water and sediment sampling and analysis have been completed, data continues to be evaluated, and samples for the next quarterly stream sediment reassessment have been collected.
- As part of sitewide characterization, a study of the potential for a vapor intrusion pathway near the derailment site is underway. The fourth (and final) sampling event for this study was completed in September 2024. As directed by EPA in October 2024, Norfolk Southern began work to complete necessary characterization sampling in the eastern end of the site so remaining contamination from the derailment can be addressed.
- Although the majority of excavation and disposal of soil contamination resulting from the derailment was completed in October 2023, some management and disposal of site-related wastes continues, although at a greatly reduced scale. This includes a small quantity of hazardous soil and other miscellaneous waste materials that remain on-site, which are shipped based on landfill availability. Additionally, the purpose of final sitewide characterization is to doublecheck for remaining soil contamination. Some materials are generated during sampling efforts and from excavation of a few small, residual areas requiring removal found as a result of the sampling. These, too, are shipped based on landfill availability.
- EPA anticipates that Norfolk Southern will have an on-site presence in 2025 to finalize restoration and study activities. The health and safety program, which protects cleanup workers, will continue through project end under EPA oversight.

As noted in previous reports, EPA's timeline for final completion of the cleanup will be determined by conditions on the ground, and operations in East Palestine will continue as long as necessary to protect human health and the environment in East Palestine and nearby communities. EPA will continue to report to the President every 60 days until all cleanup, assessment, and monitoring work required by EPA's unilateral administrative orders is complete.

Photos

February 2023



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March 2023



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April 2023



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May 2023



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June 2023



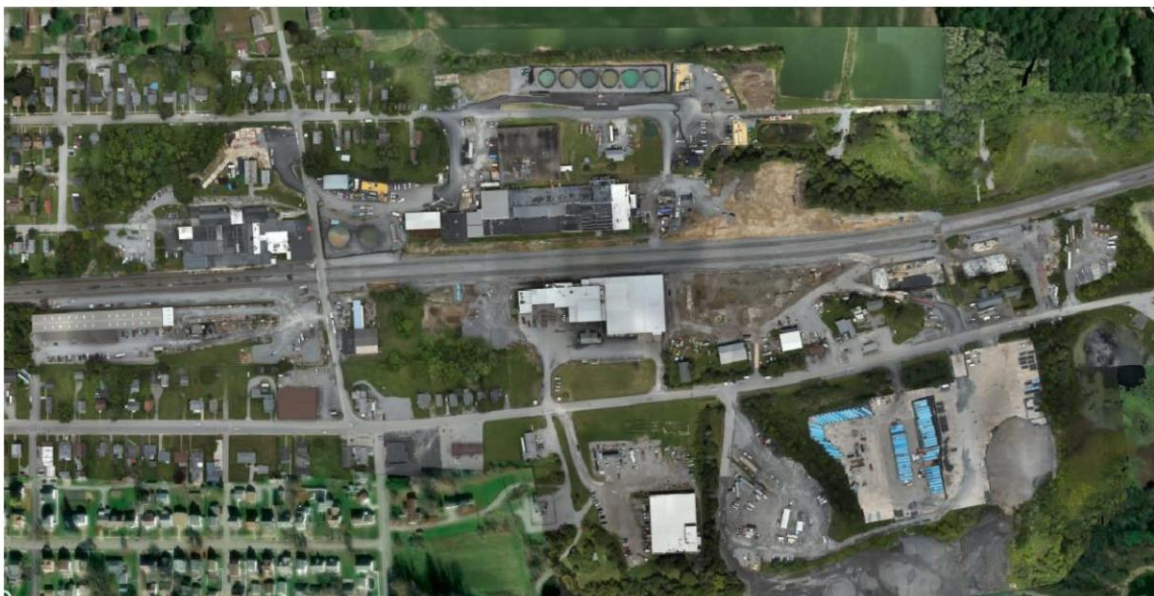
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July 2023



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August 2023



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September 2023



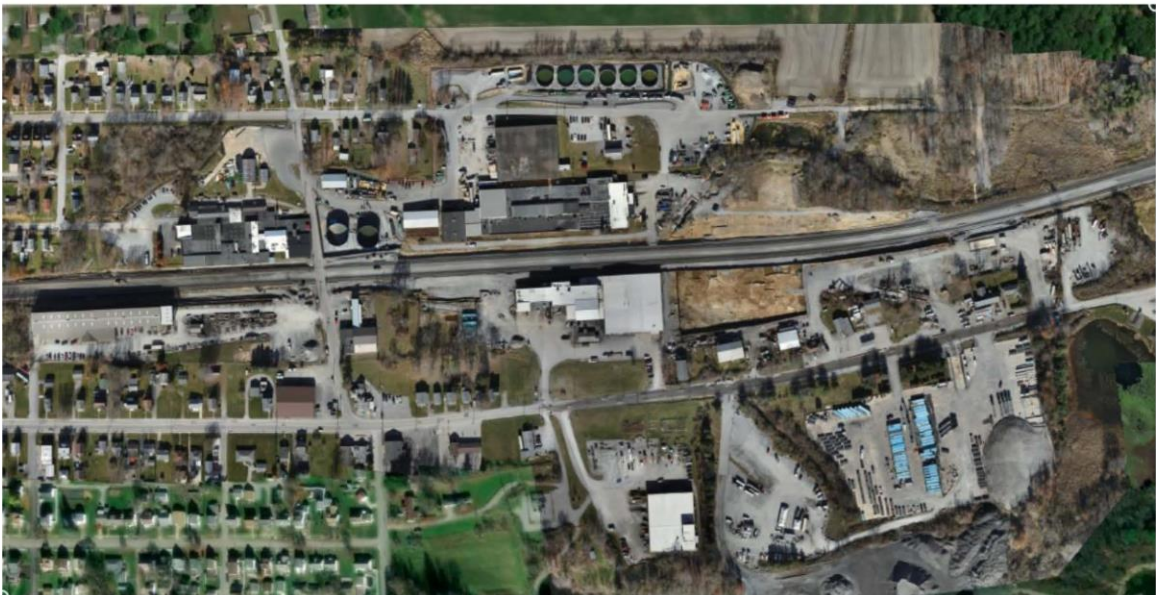
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October 2023



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November 2023



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December 2023



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February 2024



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May 2024



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September 2024



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December 2024



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Tank Farms Update

Current Inventory	Total Onsite
Frac Tanks	2
Roll Offs	28
Drums	0



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