Message

From: R5_PIO [R5_PIO@epa.gov]
Sent: 8/1/2023 10:51:59 PM
To: Ex. 6 Personal Privacy (PP)
CC: R5_PIO [R5_PIO@epa.gov]; Linduska, Rachel [Linduska.Rachel@epa.gov]; Washburn, Ben [washburn.ben@epa.gov]
Subject: EPA Response to East Palestine Inquiry

Good evening,

Thank you for your inquiry regarding dioxin sampling at the East Palestine train derailment site. Please see EPA's response below:

EPA has been made aware of some dioxin sampling data that was released by independent investigator Scott Smith. EPA has reviewed the presentation that was offered at a community meeting and has also met with Mr. Smith. Some of the language in the presentation and associated news stories was confusing.

The results highlighted by Mr. Smith were not reported using the "toxic equivalency" (TEQ) value that is used by EPA and other organizations. Dioxins are a family of many different chemicals, some of which are more toxic than others. TEQs are calculated values that allow us to compare the toxicity of different combinations of dioxins and dioxin-like compounds. All dioxin results reported by EPA are TEQ values.

The extremely high value (over 600,000 parts per trillion) that Mr. Smith reported is not an accurate measure of risk and cannot be directly compared to the EPA results. EPA reviewed the lab report in Mr. Smith's presentation and found the TEQ value. The result does indicate that the concentration is elevated compared to typical background. This is not unexpected when samples are collected next to highways or roads, especially in commercial/industrial areas such as that section of Taggart Road. Given the location of the sample and property type, EPA does not recommend any immediate action; however, the data may be considered when developing future assessment plans. Sampling conducted under EPA oversight included

17 locations along Taggart Road and all of those results were within typical background ranges.
EPA has requested more information from Mr. Smith to better understand his sampling approach. Specifically, EPA is interested in the work plan that assures quality and shows methods and procedures and identifies data quality objectives to ensure that meaningful results can be interpreted. EPA would also like to review a report explaining the scientific assertions that have been made. Additionally, the concept of "control samples" does not provide meaningful data in this context. The collection of only three samples from unrelated properties does not provide scientifically and statistically comparable data. EPA will be investigating further.

EPA oversaw surface and depth testing at 146 locations. Every sample location in the Phase 1 plan had two samples collected: One at the surface (first inch of soil) and one at depth (the next 5 inches of soil). Our data review revealed that the surface and depth samples had nearly identical dioxin results indicating that the majority of contamination present was likely from legacy sources consistent with EPA's literature review on background levels for dioxin consistent with residential, commercial, and agricultural soil in the area.

EPA is evaluating the Phase 1 results and will make a recommendation soon about a possible Phase 2 plan for off-site soil sampling. EPA is also reviewing a plan to conduct a thorough characterization of on- and near-site soil. This plan will be implemented after the major removal work is complete. The plan will include dioxin sampling.

For more information about dioxins and TEQ calculations, visit EPA's web page.

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