

EPA Releases Draft Sewage Sludge Risk Assessment for Per-and Polyfluoroalkyl Substances



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On January 14, 2025, the U.S. Environmental Protection Agency (EPA) released its “Draft Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) Perfluorooctane Sulfonic Acid (PFOS), which are collectively referred to as per- and polyfluoroalkyl substances or PFAS.” The next day EPA published the notice of availability of the draft in the *Federal Register* 90 Fed. Reg. 3859 (Jan. 15, 2025).

The draft risk assessment “reflects the agency’s latest scientific understanding of the potential risk to human health and the environment posed by the presence of PFOA and PFOS in sewage sludge” under a variety of circumstances, including as a soil conditioner or fertilizer. *Id.* EPA focused on the risks and impacts to “those living on or near impacted sites or those that rely primarily on their products (e.g., food crops, animal products, drinking water)” and noted that “the risk assessment does not model risks for the general public.” *Id.* The findings are preliminary, and, after review of public comment and any resulting revisions, the EPA expects to publish a final risk assessment to inform its future regulatory actions under the Clean Water Act.

According to the Notice of Availability, EPA is accepting written comments on the draft risk assessment until March 17, 2025.

Sewage Sludge

When domestic sewage water is treated at a wastewater treatment plant, “it is treated to separate the liquids from the solids, which produces a semi-solid, nutrient-rich product known as sewage sludge.” *Id.* at 3860. EPA has established standards for the use or disposal of sewage sludge at 40 C.F.R. Part 503, including sewage sludge that has been treated sufficiently to meet the requirements necessary for application to land as a soil conditioner or fertilizer.

PFOA and PFOS

PFAS, including the specific PFOA and PFOS is a class of synthetic chemicals “that persist in the environment for long periods of time, and have been linked to a variety of adverse human health effects.” *Id.* Last year, EPA “classified both PFOA and PFOS as *likely to be carcinogenic to humans* and concluded that these chemicals are likely to cause a range of non-cancer effects in humans, including hepatic, immunological, cardiovascular, and developmental effects, depending on exposure conditions.” *Id.* at 3860-61. The risk assessment evaluates some of those exposure conditions. EPA notes that potential sources of PFOA and PFOS in sewage sludge include:

- Industrial releases (e.g., aqueous film-forming foam);
- Commercial releases (e.g., car washes, industrial launderers); and,

- Down-the-drain releases (e.g., use of consumer products like after-market water resistant sprays, floor finishes).

Draft Risk Assessment

The EPA's Draft Risk Assessment evaluated the risk of PFAS in several sludge disposal scenarios, including land application to pastures, food farms, and reclamation scenarios, surface disposal in a sewage sludge monofil, and incineration. *Id.* at 3861-62. Potential exposure pathways through these disposal methods included consumption of drinking water, fish, beef, milk, eggs, and certain fruits and vegetables. *Id.* at 3862.

The draft risk assessment includes many detailed findings but, in summary, EPA findings suggest that acceptable human health risk thresholds were exceeded for some pasture farm, food crop farm, and reclamation exposure scenarios. *Id.* In the pasture farm scenario, cancer risks were elevated in the milk, drinking water, fish, beef, and egg pathways. *Id.* at 3863. In the food crop farm scenario, cancer risks were elevated in the drinking water, fish, fruits, and vegetables pathways. *Id.* Reclamation scenarios found elevated cancer risks in the milk, fish, and egg pathways. *Id.* Finally, surface disposal found increased cancer risks for drinking groundwater sourced near an unlined or clay-lined unit. *Id.* at 3863. Incineration risks were not quantified due to data limitations. *Id.* at 3861.

What's next?

The comment period is open until mid-March. If, after review and finalization of the risk assessment, EPA determines that there are risks above acceptable thresholds when using or disposing of sewage sludge, the agency expects to propose further regulation under CWA section 405.

A copy of the Draft Risk Assessment can be found [HERE](#).

A copy of the *Federal Register* Notice of Availability can be found [HERE](#).