Response to OMB

1.31.24

Question 1: What are the levels of PFOS and PFOA in paper mill residuals?

In comments on the proposed rule, the American Forest & Paper Association (AF&PA) provided the following overview of a dataset of paper mill residuals tested for PFOA and PFOS:[1]

> "AF&PA reviewed samples of paper mill residuals which were tested for PFOA and PFOS. Many samples do not show detectable levels of PFOA or PFOS, but because PFOA and PFOS are widespread in the environment, they have been detected in some samples of paper mill residuals, albeit at very low levels. AF&PA data on paper mill residuals samples show median values of non-detect for PFOA and 4.05 parts per billion (ppb) for PFOS. This is below median values of PFOA and PFOS in many biosolids, and also below levels found in common household dust. For example, a study of PFOA and PFOS concentrations in biosolids by the Ecology Center and Sierra Club (2021) reports median concentrations of 1.53 ppb for PFOA and 13.2 ppb for PFOS.[2]"

Information on common house dust, which is often used as an environmental indicator of chemical deposition, and which we believe is representative of background contamination of PFOS, shows median values ranging from 24 ppb to 8 ppb for PFOA and 27 ppb to 4 ppb for PFOS for samples taken between 2009 and 2016.[3]

If you have any additional questions about the dataset referenced above, please contact the American Forest & Paper Association at (202) 463-2700.

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[1] American Forest & Paper Association Comments on EPA Proposed Rule: Designation of PFOA and PFOS as CERCLA Hazardous Substances, 7 (Nov. 7, 2022), https://www.regulations.gov/comment/EPA-HQ-OLEM-2019-0341-0423.
[2] PFA-Garden-Sludge-Report.pdf (sierraclub.org)
[3] Hall, SM, Patton, S, Petreas, M. et al., Per- and Polyfluoroalkyl Substances in Dust Collected from Residential Homes and Fire Stations in North America, Environ. Sci. & Tech, 2020, 54, 22. 14558-14567. Table in supplemental information: https://pubs.acs.org/doi/10.1021/acs.est.0c04869

Question 2: Are biosolids and residuals the same, what programs regulate land application of residuals, and how are they considered fertilizer?

AF&PA provided the following information to the EPA Office of Policy in 2023 in response to a similar question:

Residuals are generated as a function of papermaking. They are collected from the primary and sometimes the secondary clarifier, which is part of the wastewater treatment facility. Residuals are largely cellulosic material that was not incorporated into the paper created by the papermaking process, or "the sheet." Residuals may also contain inorganic materials that were part of the paper making process such as clay. Residuals are a brown color that resembles ground paper. Residuals can be dewatered and applied as a solid or incorporated into a slurry and spray applied.

When Congress enacted CERCLA in 1980, it provided four exclusions from the definition of "release," one of which is "the normal application of fertilizer."[4] EPA interpreted that exclusion in its preamble to the final Clean Water Act Part 503 standards for biosolids (then called "sewage sludge"). There, EPA said that the "normal application of fertilizer" encompasses application of municipal biosolids as a fertilizer or soil conditioner, if those biosolids meet applicable Part 503 standards.[5] Residuals are similarly used as a fertilizer or a soil conditioner, and

[4] 42 U.S.C. § 9601(22)(D).
[5] 58 Fed. Reg. 9248, 9262 (Feb. 19, 1993).

PFOA and PFOS incidentally contained in such residuals should be similarly excluded from the scope of this rule.

Land-applied residuals are beneficial for farmlands and forestlands because they can increase soil nutrient-holding capacity, reduce soil erosion and the need for irrigation, and reduce soil compaction, which significantly improves plant growth.[6]

In addition, in comments filed on the proposed rule, AF&PA provided the following overview of state programs:[7]

> Many state programs require landowners receiving residuals to operate under management plans to ensure the safe and beneficial use of papermill residuals as soil amendments. These state regulated management plans often include:
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> - Chemical and physical characterization of the material
> - Limits on application based on agronomically appropriate rates
> - Restrictions on application in flooded or snow-covered fields
> - Setbacks from streams, wells, and residential or public buildings
> - Soil tillage and residuals incorporation requirements

[6] See AF&PA Comments on CERCLA Listing Proposal at 5, 8.
[7] American Forest & Paper Association Comments on EPA Proposed Rule: Designation of PFOA and PFOS as CERCLA Hazardous Substances, 6-7 (Nov. 7, 2022).

- Siting and storage requirements[8]

If the rule is finalized as proposed, our concern is it could impede the safe and beneficial land application of paper mill residuals and could cause serious unintended outcomes. As detailed in the AF&PA comments, this not only could include severe economic costs that could jeopardize high-paying mill jobs well above the prevailing wage in small rural communities, but also, such a rule could lead to serious environmental and health costs. First, such a rule could significantly overburden currently available and future landfill space. Second, transporting these voluminous materials to Subtitle C hazardous waste sites potentially could require a huge effort, on the order of 250,000 dump trucks traveling 500 miles each year, causing a significant increase in emissions of greenhouse gases and conventional air pollutants, increased traffic, pollution, and vehicle accident risks in disadvantaged communities, and supply chain disruptions.

[8] National Council for Air and Stream Improvement, "Guide to State-Specific Regulations on Beneficial Use of Manufacturing Residuals," Technical Bulletin No. 1064, Cary, NC (2019). We note that some states (e.g., Michigan) are developing risk management approaches that allow for land application of biosolids with de minimis levels of PFAS. *See* Michigan interim strategy on land application of biosolids (2021), available at https://www.michigan.gov/-/media/Project/Websites/egle/Documents/Programs/WRD/Biosolids/PFAS-Biosolids-Strategy.pdf?rev=c81c0064150d4f45bece88efcf304e3f