Virginia Biosolids Council

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U.S. Environmental Protection Agency
EPA Docket Center
Office of Water Docket
Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

VIA EPA Access Regulations
DOCKET ID: EPA-HQ-OW-2024-0504

Dear Sir/Madam:

The Virginia Biosolids Council (VBC) appreciates the opportunity to submit these comments related to the Draft U.S. Environmental Protection Agency (EPA) Sewage Sludge Risk Assessment for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS) ("risk assessment"). VBC has been Virginia's voice for the beneficial use of biosolids for almost two decades. Its membership is composed of municipal wastewater treatment facilities and contract applicators dedicated to the proper treatment and stewardship of biosolids in Virginia while ensuring the protection of public health and the environment. Each member of the VBC signs onto its Code of Good Practice, which provides that each member adheres to a voluntary set of guidelines outlining best practices for producing and managing high-quality biosolids.

We appreciate U.S. EPA's necessary attempt to address PFAS in biosolids. Due to high interest of the public and the agriculture community, it is important for EPA to finalize a risk assessment to provide each stakeholder involved in the generation, management, and use of biosolids greater certainty on these matters. However, the draft risk assessment has created uncertainty and confusion for a broad group of biosolids stakeholders. These include, but are not limited to, municipal facilities, recyclers, farmers, industry, producers and the public.

For the reasons outlined in detail below, VBC requests that the risk assessment not be finalized until additional data is considered using new or soon to be published credible research on this subject as we believe the draft risk assessment grossly overestimates actual risk. We further request that future EPA communications regarding the risk assessment highlight the fact that it was completed without an essential risk management component or comparative risk analysis, which is unprecedented to our knowledge.

The Risk Assessment Fails to Acknowledge Limited Biosolids Management Options

The risk assessment fails to mention the practical reality of limited biosolids management options, while exculpating the alternatives. There are 472 municipal and industrial wastewater treatment facilities in the Chesapeake Bay region providing the essential public service of cleaning our water and treating the solids produced from that process. There are only four options for managing biosolids that are produced daily as a byproduct of treatment. The draft risk assessment identifies three of them (land application and reclamation; surface disposal, and incineration) as likely posing an "unacceptable risk." The fourth option of municipal solid waste is landfilling the material, and this was not considered given that landfills are regulated elsewhere in 40 CFR part 258. Virginia has more than 60 municipal solid waste facilities in operation, and our land application regulations allows organic waste, including biosolids, to be diverted from landfills for beneficial use. Because of the way our Virginia Code (Chapter 14 and 9VAC20-81-120) is written regarding landfill siting, and with historically significant public opposition to recent additional applications, there is little to no chance a new landfill will be permitted in Virginia. So, given the findings of this risk assessment, it is not clear what current and available alternatives exist for biosolids management if every single option identified for biosolids management poses an *"unacceptable risk."* A limiting of the options may create an untenable position in which our municipal solid waste landfills are overwhelmed and create a more significant environmental hazard. While such practical questions may be beyond the scope of the assessment itself, it is a reality that must be addressed by EPA and must be considered a logical outcome of this assessment.

The Risk Assessment Fails to Include the Essential Risk Management Component

Perhaps most notably, EPA released the draft assessment without first conducting a risk management analysis. This is unprecedented and could leave the public with the false impression that biosolids pose a substantial risk from land application or surface disposal. The risk management analysis is critical for putting the actual risk in perspective and for providing context. This includes a risk-benefit analysis, which would consider the risk of PFOA and PFOS from other exposures (carpeting, food packaging, cosmetics, dental floss, cookware, etc.) and the additional incremental risk from indirect biosolids exposure. It would also evaluate the benefits of biosolids land application such as climate change mitigation via carbon sequestration and the avoidance of fossil fuel intense inorganic fertilizer utilization. Other benefits include improved soil tilth, increased crop yields, reduced need for irrigation, and increased soil organic carbon which also inhibits movement and bioavailability of PFOA and PFOS in the agricultural ecosystems. The risk management piece must be completed and incorporated in advance of releasing any revised risk assessment.

The Risk Assessment Paints an Unrealistic Scenario Surrounding Land Application

The risk assessment must be updated for accuracy and modeling to more accurately reflect land application scenarios which are more realistic in the Mid-Atlantic region. VBC's more detailed suggestions follow, and there are several examples of where the risk assessment is not representative of most biosolids land application practices here and nationally.

As a practical example, the "modeled farm family" that serves as the focus of the assessment is assumed to have consumed food crops grown every year on land "*contaminated*" with PFOA and PFOS laden biosolids. In contrast, most of the land applied biosolids across the nation are *non-contaminated* and typically contain de minimus background levels of PFAS. In addition, existing biosolids land application regulations require waiting periods between biosolids application and harvest. In Virginia, it is typical for applications to be spaced 2 to 3 years apart as provided for in the state's nutrient management regulations. Therefore, the land required to comply with those requirements would far exceed that of the "modeled family." The assessment also assumes runoff to a pond used for fishing, though existing setbacks in Virginia's regulation minimizes runoff from compliant land application practices. In fact, Virginia's regulatory agency – the Department of Environmental Quality – applies regulations that are **stricter** than EPA's – including setbacks of 100 feet from water supply wells or surface waters without vegetated buffer (vs. 15 feet used in EPA model). These differences are important because the regulations as enforced in Virginia provide a more practical route to reducing potential risks of land application as opposed to forcing the removal of very low levels of PFAS from biosolids that allow the more aggressive setbacks to water sources – as EPA selected to model.

These elements of the risk assessment (and others) used by EPA paint an entirely **unrealistic** scenario without consideration of existing regulations, regional topography, or other factors specific, in this case to Virginia. The assessment uses these incomplete scenarios to make inaccurate conclusions about the risks posed by land application of biosolids. Modeling these state-specific scenarios as provided in this letter and assumptions would make the assessment more usable and allow states to make a determination regarding actual risk and then consider specific policy conclusions.

The Risk Assessment Does Not Include Important Recent Research

There is an abundance of recent research or ongoing research near completion conducted on typical biosolids, none of which was included in the risk assessment, and some of which is FUNDED by the EPA for this purpose. This important research must be included before the risk assessment can be finalized. The scant research used in the draft risk assessment was largely based on studies or data from biosolids that were highly contaminated by industrial sources, and/or used at unrealistically high application rates. The more current research findings rely on long-term application sites across the country and generally demonstrate that there is limited migration of PFAS to groundwater and negligible crop uptake due in large part to low soil concentrations of PFAS, high organic carbon content, use of agronomic loading rates, and reduced mobility/bioavailability due to interactions with the solid-water and air-water interfaces. The reviews from several expert research scientists, including a new study from the University of Arizona, which included a Virginia test plot, illustrate these critical elements in greater detail and highlight other areas where the risk assessment needs to be improved or refined. Michigan, prior to adopting its biosolids management program, released a full report on influent, effluent, and biosolids in the state. This is exactly the type of research which should be included in any draft risk assessment.

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We appreciate your consideration of these comments. This initial draft assessment needs to be redone and refined and include more realistic modeling and more accurate data. It is important for EPA to move forward with a realistic risk assessment that provides certainty to municipal facilities, recyclers, farmers, producers, and the public.

Our VBC membership stands ready to support EPA to improve its model for accuracy, incorporate a risk management component, support procurement of the most up-to-date research, and provide information containing a more realistic and practical discussion of the role of biosolids recycling and management.

Sincerely,

John Uzinis
President
Virginia Biosolids Council

Copy To: R. G. Crockett
VBC Membership