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February 22, 2021

Mr. Carlos Pachon  
EPA Docket Center  
Mail Code 28221T  
U.S. Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20460

*Submitted via Federal eRulemaking Portal: <http://www.regulations.gov/>*

**Re: NACWA Comments on the U.S. Environmental Protection Agency's Interim PFAS Destruction and Disposal Guidance (EPA-HQ-OLEM-2020-0527)**

Dear Mr. Pachon:

The National Association of Clean Water Agencies (NACWA) appreciates the opportunity to provide the U.S. Environmental Protection Agency (EPA or Agency) with comments on its *Interim PFAS Destruction and Disposal Guidance* (hereafter Interim Guidance) published in the Federal Register.<sup>1</sup>

NACWA represents the interests of more than 330 municipal clean water utilities across the country of all sizes that provide an essential public service of managing billions of gallons of wastewater and stormwater, as well as thousands of tons of biosolids, every day to ensure the continued protection of human health and the environment.

NACWA understands this Interim Guidance is more informational in nature and is not intended to dictate any EPA policy nor does it carry the weight of a regulation. Nevertheless, we have several concerns with how EPA characterizes the land application of biosolids, and more broadly, how the Interim Guidance discusses biosolids without fully acknowledging the actual sources of PFAS in wastewater.

Though EPA may consider such context beyond the scope of this document, no mention of the Clean Water Act's Industrial Pretreatment Program mechanism for source control or EPA's problem formulation/risk assessment progress for PFAS in biosolids could unintentionally tilt the Interim Guidance in a direction where readers may infer that biosolids, and specifically biosolids that are land applied, are an uncontrolled source of PFAS to the environment.

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<sup>1</sup> 85 Fed. Reg. 83,554 (Dec. 22, 2020).

## **Background, The National Defense Authorization Act for Fiscal Year 2020 and the Limitations and Potential Future Implications of EPA's Three Treatment Techniques**

Many of NACWA's members are actively engaged in resource recovery, transforming waste through the domestic wastewater treatment process into nutrient-rich biosolids that promotes a cradle-to-cradle beneficial system for fertilizer use on farmlands and other soil-amendment applications. Alternatively, depending on local or regional factors, many NACWA members operate sewage sludge incinerators (SSIs) or send biosolids to landfills as non-hazardous management techniques.

The significant historical use and sheer chemical variety of per- and polyfluoroalkyl substances (PFAS) available for industrial and commercial use, coupled with the complex and ubiquitous nature of these 3,000 or more chemicals, present serious concerns to communities across the United States. Publicly-owned clean water and drinking water utilities, along with some landfilling operations, consider themselves "passive receivers"—operations that provide vital public health services that do not produce or manufacture PFAS but de facto "receive" these chemicals from heterogenous sources including domestic, industrial, and commercial sources.

Municipal clean water utilities were not traditionally designed or intended with PFAS treatment capabilities in mind nor are there cost-effective techniques available today to treat the sheer volume of wastewater managed on a daily basis. Further, and most importantly, the clean water community has never profited from PFAS or the PFAS-containing commercial products yet stands likely to bear a considerable economic cost for treating and removing these chemicals.

While science continues to advance our knowledge on PFAS and possible destruction technologies, NACWA is a staunch advocate that manufacturers and producers of these chemicals must accept the responsibility for the costs to clean up and treat environmental media contaminated with these substances. Greater source control at the producer and manufacturer level is a necessary step to mitigate or even eliminate the persistent nature and continued PFAS-related issues that many communities face today.

The National Defense Authorization Act for Fiscal Year 2020<sup>2</sup> (FY 2020 NDAA) directed EPA to publish this Interim Guidance within one year from the date of enactment. NACWA appreciates EPA's efforts to publish this Interim Guidance and believes this is an important first step to understanding the current state of the knowledge and the scientific gaps in the destruction and disposal of PFAS.

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<sup>2</sup> National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, § 7361 (2019).

EPA's Interim Guidance identifies thermal treatment as one true destruction methodology potentially capable of breaking the chemically robust carbon-fluorine bond. However, as the Interim Guidance points out, a great deal remains unknown as to whether this method is a truly feasible mechanism for destroying the diverse suite of PFAS chemical constituents found in waste-streams or whether thermal treatment will merely transform certain PFAS chemicals into unintended precursors. NACWA supports continued research on thermal treatment, the fate and transport or migration off-site, as well as the economic costs to ensure PFAS is indeed adequately destroyed.

EPA's Interim Guidance also identifies landfilling and deep well injection as two potential disposal mechanisms. However, these cradle-to-grave disposal options offer limited and temporary storage options that could merely pass PFAS-management off to another secondary entity at some future date and time. NACWA supports continued research in this area, but also encourages EPA to take a closer look at the interrelatedness of municipal clean water utilities and landfilling operations.

### **The Land Application of Biosolids is Recognized as a Beneficial Use; EPA Must Add More Clarity**

The FY 2020 NDAA Section 7361 dictates which PFAS-containing materials EPA must address in developing this Interim Guidance. The initial scoping language of the Interim Guidance is narrow and limited to destruction and disposal technologies that "may be feasible and effective to varying degrees" and includes thermal treatment, landfilling, and underground injection.

EPA's Interim Guidance acknowledges that the "land application of biosolids" is not a destruction or disposal technique and is therefore outside the intended scope of this document. As it reads currently, the FY 2020 NDAA and EPA's Interim Guidance list biosolids as an "[e]xample of PFAS-containing materials that could be managed using these [destruction and disposal] technologies" (See Table 1-1).

While NACWA agrees that the land application of biosolids is not a destruction or disposal method and is rather a beneficial use of a recovered resource that is subject to stringent Clean Water Act standards, this vague language potentially creates the perception that the land application of biosolids, since it is neither destroying nor disposing of PFAS, is simply a pathway contributing to PFAS-migration and contamination of the environment. Without the broader context explaining that the land application of biosolids is heavily regulated and beneficial recycling process, readers are left without a complete and accurate picture land application. NACWA request EPA add additional clarification in Section 1.c. and/or in Section 2.c that the land application of biosolids is not an unregulated or uncontrolled off-site migration of PFAS to other environmental media.

### **EPA Should Acknowledge the Progress Made to Mitigate PFAS in Residuals Through the Clean Water Act's Pretreatment Program**

The Interim Guidance should recognize the existing statutory and legal mechanisms under the Clean Water Act's Industrial Pretreatment Program and how local pretreatment programs have shown success in mitigating PFAS concentrations in influent, effluent, and subsequently recovered residuals. In a number of states, clean water utilities and state regulatory agencies are making significant strides to identify and eliminate upstream industrial sources of PFAS discharging to the wastewater utility. Eliminating these source contributions to the wastewater treatment utility in turn have shown to reduce PFAS concentrations in wastewater effluent and biosolids.

While there are likely stockpiled wastes containing PFAS that must be destroyed or disposed of, simply focusing on destruction or disposal for those materials that continue to be generated such as biosolids is short-sighted and will not address the problem long-term. NACWA urges EPA to revise Section 2.c. with language that does not predetermine the outcome that biosolids will warrant disposal or destruction.

The fact that there is no EPA-approved analytical test method for PFAS in wastewater or biosolids remains a limitation in our growing understanding of PFAS in biosolids. However, we have learned much over the past several years and identifying and eliminating the sources of PFAS upstream from the wastewater treatment plant should be a first step for resource managers looking to control PFAS discharges to the environment.

One of the important items in EPA's 2019 PFAS Action Plan is the Agency's role in advancing a problem formulation for biosolids—the first step in determining exposure risks, if any, through a scientifically robust risk assessment process. Until we have a more complete picture of risks of PFAS exposure in biosolids, if any, EPA should not infer that biosolids are contaminated at high levels and therefore are subsequently in need of disposal and destruction.

### **EPA Should Add Greater Clarification to Its Considerations on the Concentrations of PFAS Necessitating Destruction or Disposal**

NACWA agrees that evidence-based risk assessments and risk-based guidance are a more appropriate avenue for establishing threshold concentrations of PFAS-containing “wastes, spent products, or other material or media” that may necessitate destruction or disposal. However, NACWA requests EPA add greater clarification at the outset in its Interim Guidance that concentrations *do matter* when a resource manager is evaluating destruction and disposal options.

In many instances, trace or *de minimus* PFAS concentrations are found in environmental media simply because of their historic use and ubiquitous nature. In these situations, destruction or disposal may not be warranted outside a site-specific regulatory driver or need. In other instances, serious and significant PFAS concentrations have been found at heavily contaminated industrial usage sites. Here, destruction and disposal of PFAS or PFAS-containing materials could be more likely. While specific concentrations may not be known at this time, EPA can make a distinction between environmental media that may not require destruction and disposal versus those that

may not, either because of lower expected concentrations or because of the availability of more effective control strategies like source control.

## Additional Specific Comments for EPA to Consider When Finalizing This Iteration of the Interim Guidance

NACWA is also including the following specific comments on the Interim Guidance:

- NACWA requests EPA revise and eliminate references to “sewage sludge” and instead that the Interim Guidance, after the Agency states “commonly referred to biosolids” on Page 21, use the presently accepted nomenclature of “biosolids.”
- EPA should explicitly clarify that interim storage is not an appropriate long-term strategy for biosolids management. The Interim Guidance “encourages...safe storage” as an alternative option until “uncertainties are addressed and appropriate destruction and disposal technologies can be recommended” (*See* Section 1.b.ii). Long-term storage, however, is neither appropriate nor feasible for biosolids given the quantities that are generated on a daily basis at treatment plants across the country.
- EPA should revise and update Figure 4-1 (*See* page 84). The figure’s key currently portrays wastewater treatment plants as a “disposal, destruction and treatment” method and implies these facilities are a source of PFAS or PFAS-containing materials. The figure does not show any of the known upstream industries that manufacture or produce PFAS or PFAS-containing materials. NACWA request these sources be added to the figure and the wastewater treatment plant be shown as a “receptor” of PFAS or PFAS-containing materials. There should be a clear distinction in this figure where the wastewater treatment plant graphic is indicated with its own color and is separate from PFAS manufactures and producers.
- On page 47, there is a discussion about SSIs potentially not having the capacity to accept other sludges or waste types. There are some limited instances where SSI facilities have load-in capabilities to accept sewage sludge from other treatment plants. However, if the facility elects to accept other sludges, there would likely need to be significant modifications to handle the new material and mix it homogenously with the sludge generated on-site. It is highly unlikely that a municipal owner would want to accept other materials, even if it had the capacity, given concerns over the very narrow operating parameters the units must operate in to remain in compliance with the Clean Air Act.
- NACWA agrees with the Interim Guidance’s *Planned Research and Development on Destruction and Disposal Technologies for PFAS and PFAS-Containing Materials* (*See* Section 5) that indicates more research is needed, including “a fuller understanding of which PFAS occur in which materials and at what concentrations.”

NACWA supports EPA’s efforts to better understand PFAS destruction and disposal techniques and appreciates the opportunity to submit these comments. NACWA looks forward to continuing a

dialogue with EPA on PFAS issues going forward. Please contact me at [eremmel@nacwa.org](mailto:eremmel@nacwa.org) or (202) 533-1839 with any questions regarding these comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily Remmel". The signature is fluid and cursive, with a large initial "E" and a long, sweeping tail.

**Emily Remmel**  
**Director, Regulatory Affairs**