EPA's 2023 Plans For PFAS: High Costs, Uncertain Rewards

By Brian Gross, Max Swetman and Elle Day (January 3, 2023)

For the past few years, the U.S. Environmental Protection Agency has been working on regulations to minimize environmental contamination due to the use of per- and polyfluoroalkyl substances in industrial and consumer applications.

In light of the widespread and long-standing use of PFAS chemicals in a myriad of consumer and industrial products, and the lack of a scientific consensus regarding the health hazards they pose, many are left to wonder: On what basis, and at what economic cost, are PFAS being further regulated?



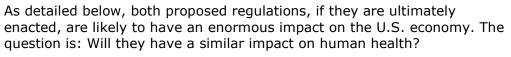
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On June 15, 2022, the EPA published its lifetime health advisory, or LHA, levels for two PFAS — perfluorooctanoic acid, or PFOA, and perfluorooctanesulfonic acid, or PFOS. The 2022 LHAs propounded by the EPA reduced the recommended exposure levels to 0.004 parts per trillion for PFOA, and 0.02 ppt for PFOS.

Previously, on Oct. 18, 2021, EPA Administrator Michael Regan had announced the agency's PFAS strategic road map, a three-year outline that set timelines by which the EPA plans to take specific actions to limit PFAS contamination in the environment. The road map seeks to set maximum contaminant levels, or MCLs, for certain PFAS chemicals by March of this year — limiting their release into drinking water for the first time.



Additionally, the plan seeks to facilitate PFAS cleanup by designating specific PFAS chemicals as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA — also known as the Superfund law.





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Questioning the Science Behind the EPA's Regulations

The EPA's recently announced LHA levels for PFOA and PFOS are not only 17,000 and 3,000 times lower, respectively, than the agency's 2016 recommendation of 70 ppt for the two compounds, they are so low that they are currently below the level of detection of any current PFAS testing methods — making them essentially zero.

In fact, under the EPA's current advisory, even rainwater is considered unsafe. While the LHAs are not binding regulations, the EPA recommends that utilities notify customers when concentrations exceed the LHAs.

Further, LHAs have far-reaching consequences for state regulation of PFAS, as well as for future federal regulation, as LHAs provide guidance to federal, state and local governments in developing binding regulations — including those for future MCLs, which the EPA will

propose no later than March.

Should the EPA actually enact MCLs at or near the new recommended LHAs, it is likely that the vast majority, if not all, of the water systems in the U.S. will be out of compliance and will require expensive remediation. The state of New York estimates that remediation of PFAS in the state's drinking water to a level of 4 ppt — a standard 1,000 times less strict than the amount proposed by the EPA's health advisory — would cost \$1.5\$ billion for startup costs and \$78\$ million annually.

In addition, Orange County, California, one of 58 counties in the state, estimates that bringing its PFAS levels down to the state's 10 ppt standard - 2,500 times higher than the health advisory - would cost \$1 billion. Based on these estimates, the cost of remediation across the country is expected to be in the tens, if not hundreds, of billions of dollars.

While funds will likely be available from both the federal and state governments, those are not expected to cover the enormous costs associated with bringing all water systems into compliance, which could result in public water systems going offline and the loss of public drinking water. In response, it is likely that water systems will be forced to initiate litigation to recover the costs associated with drinking water remediation and mitigation.

While the EPA's stated mission is to protect people and the environment from significant health risks, it is critically important that the agency base its actions — including promulgation of LHAs and future MCLs — on sound scientific principles. Failure to do so could overstate the risks associated with particular PFAS chemicals, and have a profound negative effect on the U.S. economy without any analogous positive impact on human health.

And in fact, organizations have challenged the scientific basis for the EPA's drastic reductions in its LHAs. For example, American Chemistry Council v. EPA, a lawsuit now pending in the U.S. Court of Appeals for the District of Columbia Circuit, seeks to challenge the new LHAs for PFAS, asserting that they "reflect a failure of the Agency to follow its accepted practice for ensuring the scientific integrity of its process."

Although the EPA acknowledges that drinking water standards for PFAS must be based on the best available science, the ACC alleges that the agency relied on data that was not peer-reviewed by the agency's Science Advisory Board when it published its new LHAs. Interestingly, the EPA even admits on its own website that there is not a full understanding of how to detect and measure PFAS in water, the extent of human PFAS exposure, the degree to which PFAS may adversely affect people or how PFAS can be eliminated from drinking water supplies.

Despite these unknowns, the EPA nonetheless promulgated LHAs that are so low that they cannot be detected by current EPA methods, further calling into question the scientific validity of the agency's LHAs.

In September 2022, the World Health Organization published its draft guidance on PFAS in drinking water. Based on its review of the current scientific and medical studies, the WHO recommended a limit of 100 ppt for PFOA and PFOS in drinking water — a limit that is 25,000 times higher than what the EPA recommended.

In its draft guidance, the WHO pointed out the "uncertainty and lack of consensus" in the science concerning PFAS' health effects, something that the National Academy of Sciences had also done earlier in 2022. These sources seem to lend support to those

criticizing the scientific basis for EPA's regulation of PFAS in drinking water.

On the other hand, advocates of stricter limits argue that the WHO's draft guidance disregards robust evidence for the harms of PFOA and PFOS. In fact, 116 scientists have sent a letter to the WHO urging a complete overhaul or withdrawal of its draft guidance, based on their belief that the WHO omits or obscures evidence of the links between PFOA and PFOS exposure and numerous deleterious human health effects.

Over the coming months, while the EPA reconsiders its MCLs for PFAS chemicals, you can be sure that the agency will hear both sides of this debate, as industry and the environmental community are expected to lobby actively. And you can also be sure that the EPA's MCLs will be vigorously challenged, no matter what it ultimately proposes.

Hazardous Substance Designation Leading to Hazardous Costs

In addition to proposing new MCLs for PFAS chemicals, the EPA also proposes to designate PFOA and PFOS as hazardous chemicals under CERCLA in 2023.

When a substance is classified as a hazardous substance under CERCLA, the EPA can force parties whom it deems to be potentially responsible parties to either clean up the polluted site or reimburse the agency for full remediation of the site. This may lead to potentially limitless liability for certain industries, and will allow the EPA to cast a very wide net in assigning liability for the costs of remediating or removing PFAS from a designated site.

The agency claims that this proposal "is based on significant evidence that PFOA and PFOS may present a substantial danger to human health or welfare or the environment." But as discussed above, there is no consensus among the scientific community about whether PFAS exposure causes cancer and other adverse health effects, and about what levels of exposure may be dangerous.

In fact, no epidemiological study to date has found a causal effect — as opposed to an association — between PFAS exposure and adverse health effects.

To no one's surprise, the proposal was met with industry pushback. Representatives of three industries in particular — water utilities, waste management and the International Liquid Terminals Association — met with the White House Office of Management and Budget to voice their concerns about the extreme regulatory and remediation costs the industries will face if certain PFAS are designated as hazardous substances under CERCLA.

Industries worry they will bear the burden of these cleanup costs for which third parties are responsible. Certainly any company that utilized PFAS in their industrial or manufacturing process and sent its waste to landfills, or otherwise discharged the chemicals in the environment, will be at immediate risk for enforcement action by the EPA, given their stated intent to hold all PFAS polluters of any kind accountable.

Not only will a hazardous substances designation allow the EPA to designate new sites with PFAS contamination as Superfund sites, it will also allow the agency to require potentially responsible parties to investigate potential PFAS contamination at current, and even closed, Superfund sites. Those found responsible for the pollution will be liable for the remediation costs, which could amount to tens of millions of dollars.

Obviously, there could be extreme ramifications for any company with legacy or current PFAS pollution concerns. Consequently, corporations, insurers, banks, investment firms and

private equity firms should keep a close eye on this proposed change in their due diligence calculations of risk.

With the EPA road map requiring agency action in 2023, it is clear that these issues will come to a head in the next few months. Without a doubt, the EPA's decision will be challenged by industry. Affected industries should immediately begin assessing the impact on their business to determine whether they wish to file a challenge to the regulations.

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