

Insights

PFAS AIR EMISSIONS REGULATIONS

May 26, 2021

Typically when considering the regulatory risk presented by per- and polyfluoroalkyl (“PFAS”) compounds, businesses think of the regulation of drinking water, groundwater, and consumer products. However, there is an increased awareness that air emissions are potentially a significant pathway for PFAS to enter the environment. While PFAS air emissions are not yet regulated at the federal level, three states (Michigan, New Hampshire, and New York) have enacted or have proposed restrictions on PFAS in air emissions, a trend which is likely to continue at both the state and federal levels under the Biden administration.

I. State Regulations

The following is a summary of the restrictions that have been implemented or proposed with respect to PFAS in air emissions:

Constituent	Michigan	New Hampshire	New York (Proposed)
PFOA	0.07 µg/m ³	N/A	0.0053 µg/m ³
PFOS	0.07 µg/m ³	N/A	N/A
APFO	N/A	24-hour limit: 0.05 µg/m ³ Annual limit: 0.042 µg/m ³	N/A

A. Specific Regulatory Information

- Michigan: The Michigan Air Quality Division (“AQD”) has derived health-based standards for PFOS and PFOA in outdoor air (see page 36 of the list of screening levels). Air concentrations below these standards are anticipated by AQD to pose no or minimal risk to the public health, including sensitive individuals such as the elderly and children. AQD intends to develop additional health-based screening levels for other PFAS compounds, as needed. These standards are applied to new and modified sources of air contaminants, and apply individually if only one substance is present in the air, or as a combined limit if both compounds are present in the air.

- PFOA: 07 µg/m³
- PFOS: 07 µg/m³
- New Hampshire: New Hampshire developed Ambient Air Limits (both annual and 24-hour limits) for Ammonium perfluorooctanoate (“APFO”) only (see page 40). One study has reported that APFO can dissociate to PFOA in human blood.
 - Ambient Air limit (24 hour): 05 µg/m³
 - Ambient Air Limit (Annual): 042 µg/m³
- New York: The New York State Department of Environmental Conservation proposed an Annual Guideline Concentration (“AGC”) that only pertains to PFOA (see page 64). The AGC proposes an allowable concentration in ambient air for PFOA, and outlines the procedures for evaluating the emissions of air contaminants from various emissions sources.
 - PFOA: 053 µg/m³

B. How Do These Regulations Impact My Business?

Regulation of PFAS air emissions is poised to have a potentially onerous and costly effect on impacted businesses. Below are some considerations that may be applicable to your business.

- Applicability. Operations initially targeted by states include some chrome platers, paint/coating facilities, burn-off ovens, and textile coaters, but given the prevalence of these compounds across industry sectors, a variety of industrial sources may release PFAS compounds in their air emissions. Notably, a growing body of stack test data confirm that PFAS substances can be released into the air through a facility’s air emissions stack, which means that facilities may be subject to permit emissions limits for PFAS as more states, and possibly the federal government, issue emissions limits.
- Growing Scope of Regulations. The air emission standards listed above are only for three regulated PFAS compounds (PFOA, PFOS, and APFO), and have been passed or proposed in three states (Michigan, New Hampshire, and New York), so the current regulatory impact is limited. However, regulation of PFAS air emissions is expected to continue expanding to additional states and to include additional PFAS compounds over the next few years as regulators develop a better understanding of the types and volumes of PFAS air emissions. In anticipation of future regulation, impacted businesses should closely track PFAS air emission

regulations as they develop to adjust corporate compliance programs to comply with a range of mandatory limitations and possible reporting processes.

- **Air Permits.** Including PFAS emission limits in air permits is a trend likely to become increasingly popular among the states. For example, in [Michigan](#), if a source emits PFAS above certain thresholds, such sources could be required to meet a health-based screening level if the state issues an air permit. These permitting requirements could present a significant and costly gating issue to numerous modified or new sources applying for air permits, causing operational delays and potentially unanticipated capital expenditures.

II. Federal Regulations and Actions

While no federal laws currently regulate PFAS air emissions, recent activity at the federal level signals that potentially significant and far-reaching changes could be coming soon to major federal environmental statutes, including the Clean Air Act (“CAA”).

A. PFAS Action Act of 2021

The [PFAS Action Act of 2021](#) was introduced in the House of Representatives, and it encourages the EPA to take regulatory action related to PFAS with respect to, among other things, air pollution (see Section 8). Specifically, the Act would require that the EPA issue a final rule adding PFOA and PFOS to the list of hazardous air pollutants under the CAA within 180 days of the passage of the Act. Further, within five years after passage of the Act, the EPA would be required to make a determination as to whether to add other PFAS compounds to the list of hazardous air pollutants.

B. National Defense Authorization Act for Fiscal Year 2020

In this [legislation](#), the Secretary of Defense shall require that PFAS chemicals be incinerated in compliance with the requirements of the CAA, including controlling hydrogen fluoride (please refer to Section 330 for additional information). While incineration procedures are not actual air emission standards, this congressional attention to PFAS air issues may eventually lead to other federal regulations in the PFAS area.

C. EPA's Emissions Test

In 2021, EPA issued the first air emissions test method ([OTM-45](#)) designed specifically to sample PFAS materials. The promulgation of an EPA-approved test method will allow state-regulated businesses to more efficiently and reliably measure PFAS emissions, and may serve as the cornerstone of any federally-issued regulations of PFAS air emissions under the CAA or otherwise.

D. EPA's Budget

EPA has included research for PFAS air issues in partnership with several states in its [Fiscal Year 2021 budget](#). Please see page 125 for additional information.

III. Other Considerations

In addition to the enacted and proposed regulations discussed in Section I, there have also been some legal and permitting actions that provide useful insights into how regulatory agencies may approach PFAS in air emissions.

A. Consent Decree

Signed on February of 2019, the State of North Carolina et al. v. The Chemours Company FC, LLC Consent Decree specifically addresses PFAS air emission issues. Under the Consent Decree, Chemours is obligated to undertake certain actions and achieve certain results with respect to PFAS compounds, including the following:

- Reduce GenX emissions (a PFAS compound) by 82% by October 6, 2018, 92% by December 31, 2018, and 99% by December 31, 2019, or be subject to penalties;
- Utilize a thermal oxidizer, and within 90 days of its installation, control PFAS emissions at an efficiency of 99.99%; and
- Submit laboratory standards and test methods outlining its GenX emissions to the air quality division of the North Carolina Department of Environmental Quality.

One important point to note is that Chemours was required to install control technology and demonstrate that it met its emissions control obligations, even though North Carolina did not have any regulatory limits for PFAS in air emissions when the Consent Decree was signed. It also signals that at least one state agency views thermal oxidizers as a viable means of controlling PFAS emissions.

It is worth noting that thermal oxidizers are not the only form of PFAS control equipment that have been approved. Some facilities have installed other control equipment including carbon absorption and wet scrubbers with packed bed fiber filters in businesses such as “Teflon manufacturing facilities, PFAS containing coating facilities, chrome platers, landfills, and wastewater treatment plants.”

B. Temporary Air Permit: Thermal Oxidizer

In New Hampshire, a fabric coating facility also proposed the installation of thermal oxidizers, in part, to reduce PFAS air emissions. If your company is interested in reviewing the specific details, the February 2020 permit is [here](#).

C. Chrome Plating Operations

Beginning in the 1950's, PFAS for fume suppression was used in the chrome plating industry. In 2012, EPA phased out PFOS materials from chrome plating fume suppressants. Additionally, in

2016, [California](#) banned the use of PFOS in chrome plating fume suppressants. Other states, such as [Michigan](#), have conducted studies regarding this issue. Given the level of regulatory attention on chrome plating businesses, entities that currently conduct chrome plating work should evaluate their potential PFAS air emissions in anticipation of anticipated regulatory action.

IV. Conclusion

The regulation of PFAS in air emissions is beginning to roll out at the state level, and is expected to increase over the next few years as further research is conducted on potential health impacts, and as regulators develop a deeper understanding of the nature of PFAS concentrations in facility emissions.

For more information on PFAS chemicals, and the regulatory and litigation risks that they pose, please visit our [PFAS webpage](#). If you have a question about how to manage PFAS risk in any jurisdiction, contact Tom Lee, John Kindschuh, or any other member of our PFAS team at Bryan Cave Leighton Paisner LLP.

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MEET THE TEAM



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