

Regulatory Overview on PFAS in the United States

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TAKEAWAYS

- *PFAS continues to be an area of focus for EPA and state agencies, as well as an ever-increasing litigation risk for companies that have manufactured, imported, processed, or otherwise used products including chemicals belonging to this sizable class of synthetic compounds.*
- *Both EPA's unified agenda and the Biden Plan to Secure Environmental Justice and Equitable Economic Opportunity indicate that 2021 will be a busy year on the PFAS rulemaking front, as EPA plans to proceed with the establishment of maximum contaminant levels and hazardous substance designations for PFOA and PFOS, the two most studied PFAS chemicals.*
- *Now more than ever, businesses with past or present operations involving PFAS are encouraged to take proactive steps to mitigate potential liabilities associated with these chemicals.*

Poly- and perfluoroalkyl substances ("PFAS") are a class of approximately 4,500 synthetic chemicals, so-called because they contain one or more carbon chains saturated or nearly saturated with fluorine.¹ The carbon-fluorine bond is among the strongest in organic chemistry and gives PFAS their physical properties: fire-, water-, and grease resistance. Due to these properties, PFAS exist in a wide array of industrial and commercial products, including:

- Aqueous fire-fighting foam;
- Paper and packaging products;
- Surface coatings for textiles, utensils, electronics, automobile parts, etc.;
- Lubricant and oil formulations; and
- Miscellaneous industrial and commercial products.

The combined market for PFAS chemicals is estimated to exceed \$1 billion annually. Japanese businesses interface with PFAS in different capacities, as manufacturers, processors, distributors, and users of PFAS-containing products. Additionally, Japanese businesses active in the mergers and acquisitions market may have to decide whether to take on other businesses' PFAS-related liabilities as a part of a transaction.

¹ Per- and Polyfluoroalkyl Substances (PFAS), Env't. Prot. Agency.

In the early 2000s, the United States Environmental Protection Agency (“EPA”) (and other environmental and public health agencies around the world) classified certain PFAS chemicals as “persistent, bioaccumulative, and toxic.” The term “persistent” refers to the fact that PFAS do not naturally biodegrade in the environment. PFAS are “bioaccumulative” in that they remain and gather in the bloodstream and tissues of organisms. They are “toxic,” inasmuch as PFAS exposure has been reported to be linked to developmental defects, chronic illnesses, and death. In particular, PFAS are reported to cause thyroid disease, pregnancy issues, and cancer, though opinions vary about the degree of risk and at what concentrations such risks become acute. This classification stands at the heart of the increasing litigation risks associated with PFAS and the attention paid to PFAS by United States regulators. As explained below, PFAS are becoming, in many ways, the next “hot topic” in United States environmental law, as was the case in the 1980s and 1990s with asbestos and in the early 2000s with dioxins and polychlorinated biphenyls.

The PFAS Supply Chain

To date, three types of entities in the PFAS supply chain have incurred the bulk of the liability:

1. Primary manufacturers: These are typically specialty chemical companies that produce and distribute PFAS either in bulk or in commercial- or industrial-grade formulations that also contain other chemicals.
2. Secondary manufacturers or processors: These companies, which are significantly more numerous than primary manufacturers, obtain PFAS for use in their own industrial processes (e.g., textile manufacturers that treat their products with waterproofing agents made by principal manufacturers).
3. End users: These can be businesses that use PFAS-containing formulations and products produced by businesses in categories (1) and (2) (e.g., the aviation industry, which both outfits planes with PFAS-coated seats and other equipment due to their fire-resistant qualities and uses PFAS-containing aqueous firefighting foam to quench fires or perform firefighting drills).

Each of the three business-types mentioned above is theoretically capable of introducing PFAS to the environment—and consequently incurring liability—through accidental spills and releases, permitted discharge, disposal, and, in the case of products such as aqueous fire-fighting foam, product usage. In terms of the nature of the liability exposure, primary and secondary manufacturers (including those that are overseas and knowingly arrange to place their chemicals in United States commerce) are exposed to product liability suits, while any entity that introduces PFAS into the environment has exposure for toxic tort liability (i.e., exposure to environmental claims made pursuant to common law causes of action, such as negligence, nuisance, trespass, personal injury, etc.) and, depending on the laws and policies of a given state, statutory liability (see the next section for developments related to federal law).

In addition to these three types of businesses, other entities that are part of the supply chain or that interface with it may incur liability. For example, depending on the degree of control that they exert over PFAS products and the types of claims being brought, trading companies and warehousing and storage facilities also have potential liability exposure. The same holds for waste disposal and treatment facilities (e.g., landfills, incinerators, wastewater treatment plants, and publicly owned treatment works), which are technically not part of the supply chain, but which accept wastes from businesses that are.

Finally, once PFAS enters the environment, new exposure pathways are created. PFAS are among the most dispersible chemicals in the environment, and PFAS-contaminated groundwater or surface water may be used for potable purposes. Water utilities that provide PFAS-contaminated drinking water to their customers may incur liability exposure, as well.

Difficulties of Destroying PFAS

PFAS’ chemical and physical properties make PFAS contamination remediation challenging, particularly in groundwater or surface water. To date, treatment techniques have proven effective only on a limited basis. The most effective strategy has been to isolate and capture PFAS using membrane filtration. Even then, disposing PFAS captured from remediation

systems—or of unused commercial stocks of PFAS-containing products—can be problematic. Consider that older commercial waste incineration facilities do not operate at the necessary temperatures to break the carbon-fluorine bonds that give rise to PFAS substances.

The situation in the Cohoes, New York exemplifies this problem. The United States Department of Defense (“DOD”) sent unused stores of PFAS-containing aqueous fire-fighting foam to the Norlite incinerator in the Cohoes for disposal in 2018 and 2019. Because the incinerator cannot operate at sufficiently high temperatures, much of the PFAS in the foam remained intact and was subsequently dispersed into the environment as particulate matter. Environmental sampling conducted in April 2020 identified PFAS concentrations in soil and surface water around the Norlite incinerator.

In deciding to initiate, or continue, distributing or using PFAS-related products, companies should consider the difficulties in eradicating PFAS, risk mitigation measures, and the cost of doing business in the field of PFAS.

Wave of State and Private-Party Litigation

The immediate origins of the current PFAS litigation wave date back to 2012, when the EPA required public water systems regulated by the Safe Drinking Water Act to sample for perfluorooctanoic acid (“PFOA”) and perfluorosulfonate (“PFOS”), the two most widely studied PFAS substances, under the unregulated contaminant monitoring rule.² The sampling identified concentrations of these two PFAS contaminants at public water systems across the United States, spurred additional investigations of the nation’s water supply, and prompted lawsuits.

The initial wave of private-party litigation targeted two categories of defendants: (1) PFAS manufacturers and (2) water utilities. In 2018, DuPont and its former subsidiary Chemours paid \$671M to resolve approximately 3,500 claims involving releases from the Washington, West Virginia facility where Teflon—which contains PFOA—was manufactured.³ Around the same time, class action lawsuits were brought against water utilities in Colorado, Michigan, New York, and Pennsylvania.⁴ Because PFAS in water utilities is from contamination from third-party sites, the water utilities themselves became plaintiffs in litigation. Around the same time as the DuPont settlement, 3M, another major primary manufacturer of PFAS, agreed to pay \$35M to a water utility in Alabama to cover the costs of remediating PFAS in the public water system.⁵

Several states also have initiated litigation against companies alleged to have introduced PFAS into the environment. Notable efforts include those by state attorneys-general in Minnesota, Michigan, New York, New Mexico, New Jersey, and New Hampshire.⁶ The defendants in these lawsuits have included primary and secondary manufacturers of PFAS, as well as the Department of Defense (due to its use of aqueous firefighting foam). The settlements reached to date have been considerable. For example, in 2018, 3M settled for \$850M with Minnesota for releases of PFAS in the Twin Cities Metro Area.⁷ Of this amount, \$720M were allocated toward drinking water restoration and natural resource projects. 3M faces similar liability exposure for PFAS-related contamination in other states.

Another sizable settlement involved Wolverine Worldwide, a prominent secondary manufacturer of PFAS. This company incorporated 3M’s Scotchguard water-proofing agent into its leather products, the disposal of which resulted in PFAS impacts to drinking water resources near Rockford, Michigan.⁸ In February 2020, Wolverine Worldwide entered into a consent decree with the state of Michigan and local townships to pay \$69.5 million toward extending a municipal water

² Revisions to the Unregulated Contaminant Monitoring Regulation (UCMR 3) for Public Water Systems, Env’t. Prot. Agency, 77 Fed. Reg. 26,072 (May 2, 2012).

³ In re E.I. Du Pont De Nemours and Company C-8 Personal Injury Litigation, U.S. District Court for Southern Ohio, No. 13-2433.

⁴ Bell v. 3M Co., Nos. 16-CV-02351-RBJ, 16-CV-02394-RBJ, 16-CV-02352-RBJ (D. Colo.); Wolverine World Wide, Inc. v. 3M Co., No. 1:18-CV-00039-JTN-ESC (D. Mich.); New York v. 3M Co., No. 904029-18 (N.Y. Sup. Ct. June 19, 2018).

⁵ W. Morgan-E. Lawrence Water & Sewer Auth. v. 3M Co., No. 17-123 (11th Cir. Jun. 4, 2018).

⁶ State of Minnesota v. 3M Co., No. 27-CV-10-25562 (Minn. 4th Dist.); Michigan v. 3M Company et al., No. 20-000049-NZ (22nd Jud. Dist. Cir. Ct.); New York v. 3M Co., No. 904029-18 (N.Y. Sup. Ct. June 19, 2018); New Mexico v. U.S. and U.S. Dep’t of the Air Force, No. 6:19-CV-00178 (D. N.M.); New Jersey v. 3M Co. et al., No. MER-L-000953-19 (Sup. Ct. N.J.); State of New Hampshire v. 3M Co., E.I. DuPont de Nemours & Co., Chemours Co., LLC, (Sup. Ct. New Hamp.).

⁷ State of Minnesota v. 3M Co., No. 27-CV-10-25562 (Minn. 4th Dist.).

⁸ Wolverine World Wide, Inc. v. 3M Co., No. 1:18-CV-00039-JTN-ESC (D. Mich.).

system to about 1,000 homes with private wells that were affected by the contamination. Michigan, in fact, is estimated to have one of the highest concentrations of PFAS sites of any state, and in 2019, the Michigan attorney-general's office issued a call for private attorneys to assist in bringing suit against responsible parties.

In January 2021, the first multidistrict litigation settlement was reached with a Johnson Controls entity, Tyco Fire Products LP.⁹ The company entered a \$17.5 million settlement with homeowners in Peshtigo, Wisconsin for their predecessor releasing PFAS-containing firefighting foam that ultimately contaminated the homeowners' private drinking water wells. The area does not have a municipal water system as a drinking water alternative. Of the settlement, \$15 million will be allocated for property damage and \$2.5 million to individuals diagnosed with certain diseases, such as testicular and kidney cancer. Further, the company agreed to funding a new water line for the homeowners.

These and other lawsuits underscore the sizable liability risks to companies in the PFAS supply chain. Nor is the litigation wave over. Although COVID-19 has slowed down case processing, the expectation is that this delay will be temporary. At present, at least 410 lawsuits are pending against primary manufacturers, secondary manufacturers, and end-users of PFAS products. As with the lawsuits mentioned above, the majority of these actions have proceeded on common law theories of negligence, nuisance, trespass, product liability, market share liability, and personal injury. Some plaintiffs—including certain states—have alleged that PFAS manufacturers have known and suppressed information regarding the deleterious effects of these chemicals; the claims brought by such plaintiffs include allegations of conspiracy and tortious concealment. To the extent that corporate defendants have attempted to shift their PFAS-related liabilities to (undercapitalized) subsidiaries, claims of fraudulent conveyance and transfer also have been brought.

Regulatory and legislative developments at the federal and state levels, discussed in the next section, stand to facilitate further litigation.

Federal Regulatory Developments

EPA and the federal government have taken incremental steps to regulate PFAS since the early 2000s. For example, in 2002, EPA initiated a phaseout of PFOA and PFOS by major domestic manufacturers, but no recall of products.¹⁰ This was followed in 2006 by a PFOA Stewardship Program, which secured commitments from eight major manufacturers and users of the chemical to manage and dispose of their product stocks.¹¹ Among the eight businesses that participated in the stewardship program, two were Japanese fluoropolymer manufacturers, Asahi Glass and Daikin Industries. Since the early 2000s, EPA has promulgated regulations requiring notifications—Pre-Manufacture Notifications (“PMNs”) and Significant New Use Notifications (“SNUNs”)—to EPA under Section 5 of the Toxic Substances Control Act (“TSCA”) before the marketing and commercial distribution of an increasing number of PFAS-containing products.¹²

In February 2019, EPA published its PFAS Action Plan, which delineated the actions that EPA planned to take in the short- and long-term to address PFAS.¹³ In addition to calling for the refinement of analytical techniques for sampling and identifying PFAS, as well as further research into feasible remedial technologies, the PFAS Action Plan called for:

⁹ *Campbell v. Tyco Fire Products et al.*, No. 2:19-cv-00422 (D. S.C.), part of In Re Aqueous Film-Forming Foams Products Liability Litigation MDL 2873, No. 2:18-mn-02873, (D. S.C.).

¹⁰ Significant New Use Rule, *Env't. Prot. Agency*, 67 Fed. Reg. 72,854 (Dec. 9, 2002) (codified at 40 C.F.R. pt. 721); Perfluoroalkyl Sulfonates; Significant New Use Rule, *Env't. Prot. Agency*, 67 Fed. Reg. 11,0008 (Mar. 11, 2002) (codified at 40 C.F.R. pt. 721); Perfluoroalkyl Sulfonates.

¹¹ *Fact Sheet: 2010.2015 PFOA Stewardship Program*, *Env't. Prot. Agency*.

¹² Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances; Significant New Use Rule, *Env't. Prot. Agency*, 85 Fed. Reg. 45,109 (July 27, 2020) (codified at 40 C.F.R. pt. 721); Perfluoroalkyl Sulfonates and Long-Chain Perfluoroalkyl Carboxylate Chemical Substances; Final Significant New Use Rule, *Env't. Prot. Agency*, 78 Fed. Reg. 62,443 (Dec. 23, 2013) (codified at 40 C.F.R. pts 9, 721); Perfluoroalkyl Sulfonates; Significant New Use Rule, *Env't. Prot. Agency*, 72 Fed. Reg. 57,222 (Oct. 9, 2007) (codified at 40 C.F.R. pt. 721); Perfluoroalkyl Sulfonates; Significant New Use Rule, *Env't. Prot. Agency*, 67 Fed. Reg. 72,854 (Dec. 9, 2002) (codified at 40 C.F.R. pt. 721); Perfluoroalkyl Sulfonates; Significant New Use Rule, *Env't. Prot. Agency*, 67 Fed. Reg. 11,0008 (Mar. 11, 2002) (codified at 40 C.F.R. pt. 721).

¹³ *EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan*, *Env't. Prot. Agency*, EPA 823R18004 (Feb. 2019).

- **Establishing an enforceable Maximum Contaminant Limit (“MCL”) for PFOA and PFOS under the Safe Drinking Water Act.**¹⁴ This measure will have a twofold impact. First, it will establish an enforceable federal limit for these two PFAS, such that regulated public water systems will incur liability in the form of penalties and injunctions for exceeding them. This, in turn, will precipitate lawsuits against the violating utilities by customer, as well as by the utilities against the parties responsible for contaminating the water supply. Second, because MCLs inform environmental remediation efforts, the codification of an MCL will establish a de facto remediation target for PFOA and PFOS in groundwater. In this connection, it is relevant that EPA has trended toward adopting, as an MCL, its unenforceable advisory level of 70 parts per trillion (“ppt”) for PFOA and PFOS. This standard is a full order of magnitude lower than the cleanup levels for most other deleterious contaminants, such as volatile organic compounds, and many in the regulated industry conclude it is predicated on an overly conservative interpretation of toxicity data.
- **Listing PFOA and PFOS on the List of “Hazardous Substances” under the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”).**¹⁵ This will bring sites contaminated with these two PFAS substances under the scope of CERCLA, the primary federal environmental remediation statute. It stands to impose joint and several liability on past and present owners and operators of properties contaminated with these substances, as well as on transporters and parties that arrange for the disposal of PFOA and PFOS. Given that CERCLA is the model for most state environmental cleanup statutes, the expectation is that the states, too, would list these two substances in their analogous laws once EPA has added them to the “hazardous substances” list. CERCLA listing will provide another statutory basis for private party litigation, as Sections 107 and 113 authorize potentially responsible parties to bring suit against one another to recover response costs. Finally, expanding the list of hazardous substances will create an impetus for regulators to require sampling for these potential contaminants at sites where remediation is underway or not yet completed. Such new emphasis may functionally “reopen” site investigations and compel responsible parties to incur costs for which they have not yet planned.
- **Adding PFAS to the Toxic Release Inventory (“TRI”) Under Section 313 Reporting under the Emergency Planning and Community Right-to-Know Act (“EPCRA”).**¹⁶ This new measure requires certain industrial businesses that manufacture, process, or otherwise use listed PFAS substances to submit annual reports to local emergency planning organizations regarding their implementation and disposal of PFAS. As TRI reports are publicly available, this regulation will allow governmental authorities and potential plaintiffs to more readily identify businesses that may have contributed to PFAS contamination.
- **Finalizing the TSCA Significant New Use Rule (“SNUR”) that was proposed in 2015 for Long-Chain PFAS.**¹⁷ The purpose of this SNUR, which was originally proposed in 2015 and finalized in September 2020, is to require businesses that manufacture and import PFAS substances listed on the TSCA Inventory (i.e., those that already have been cleared for use in the United States) to obtain EPA approval before engaging in certain designated activities.

In their totality, the measures specified in the PFAS Action Plan stand to regulate PFAS’ introduction into commerce, use, and remediation. Over two dozen Congressional bills are pending that require implementation of the PFAS Action Plan or otherwise touch on PFAS. Furthermore, while certain proposed measures in the PFAS Action Plan focus only on PFOA and PFOS, the expectation is that EPA will quickly expand the scope of coverage to include other PFAS.

¹⁴ 42 U.S.C. §§ 300f et seq.

¹⁵ 42 U.S.C. §§ 9601 et seq.

¹⁶ 42 U.S.C. ch. 116.

¹⁷ Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances; Significant New Use Rule, Env’t. Prot. Agency, 85 Fed. Reg. 45,109 (July 27, 2020) (codified at 40 C.F.R. pt. 721); Significant New Use Rules: Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances, Proposed Rule, Env’t. Prot. Agency, 80 Fed. Reg. 2,885 (Jan. 21, 2015) (to be codified at 40 C.F.R. pt. 721).

The Action Plan's implementation is already underway. In February 2020, EPA initiated the regulatory process to establish MCLs for PFOA and PFOS and issued an Advance Notice of Proposed Rulemaking for one of the activities contemplated in the 2015 proposed SNUR: the importation of articles with PFAS-containing surface coatings.¹⁸ As for EPCRA reporting, the National Defense Authorization Act of 2020 required the addition of 172 PFAS substances to the TRI, and this was done in March 2020.¹⁹ The first TRI reports for PFAS will be due on July 1, 2021, and additional PFAS are expected to be added to the TRI. In December 2020, EPA released for public comment a draft compliance guide outlining which articles companies will be prohibited from manufacturing, importing, processing, or using with long-chain PFAS without prior EPA approval.²⁰ EPA's Spring 2020 Unified Agenda confirms that 2020–2021 will be a busy year for PFAS, as the Agency has planned additional rulemakings to fulfill the objectives of the PFAS Action Plan.

Concurrent with the development and implementation of the PFAS Action Plan, the frequency of EPA inspections, information requests, and enforcement initiatives related to PFAS have increased. In February 2020, EPA published a Program Update on the implementation of the PFAS Action Plan that enumerates the following achievements:²¹

- Issuing twenty (20) information request letters to domestic manufacturers and processors under TSCA, the Clean Water Act (“CWA”), CERCLA, and the Resource Conservation and Recovery Act (“RCRA”).
- Performing eleven (11) domestic manufacturer and processor inspections, some in conjunction with state and local environmental agencies, at eight (8) PFAS manufacturing or processing facilities, under the authority of TSCA, the CWA, and/or RCRA.
- Initiating multiple criminal investigations concerning PFAS-related pollution.

In the long run (after COVID-19-related disruptions subside), such actions stand to become more common, as EPA and state and local governments obtain access to more information regarding PFAS and the organizations that have used them. Further, under the incoming Biden administration, EPA will likely receive greater funding than under the Trump administration and be in an even better position to regulate and enforce PFAS-related actions.

State Regulatory Developments

Numerous states also have undertaken legislative and regulatory actions to address PFAS. For example, in 2019, state legislatures introduced 106 bills with language on PFAS, with 15 new laws being enacted—an increase from 2018, which saw 76 PFAS-related bills, or supplemental appropriations introduced. Besides continuing to initiate lawsuits against businesses believed to have contributed to PFAS contamination, states currently are implementing three broad categories of actions to address PFAS: (1) developing drinking water and groundwater cleanup standards; (2) regulating PFAS-containing products; and (3) gathering information to evaluate the potential for harmful PFAS exposure at businesses and remediation sites.

- **Drinking water and groundwater cleanup standards:** To date, many states have issued guidance or regulations establishing drinking water or groundwater remediation standards for PFAS.²² These standards span a wide range of numerical limits, which reflect the fluid state of information and diversity of opinion regarding the consequences of PFAS exposure. Two areas of disagreements are whether (1) these standards should apply to all PFAS, or only select

¹⁸ Announcement of Preliminary Regulatory Determinations for Contaminants on the Fourth Drinking Water Contaminant Candidate List, Proposed Rule, Env't. Prot. Agency, 85 Fed. Reg. 14,098 (Mar. 10, 2020) (to be codified at 40 C.F.R. pt. 141); [EPA Announces Proposed Decision to Regulate PFOA and PFOS in Drinking Water](#), News Release, Env't. Prot. Agency (Feb. 20, 2020).

¹⁹ National Defense Authorization Act for Fiscal Year 2020, P.L. 116–92, § 7321 (2020).

²⁰ Significant Guidance; Compliance Guide for Imported Articles Containing Surface Coatings Subject to the Long-Chain Perfluoroalkyl Carboxylate and Perfluoroalkyl Sulfonate Chemical Substances Significant New Use Rule, Env't. Prot. Agency, 85 Fed. Reg. 81,466 (Dec. 16, 2020).

²¹ [EPA PFAS Action Plan: Program Update](#), Env't. Prot. Agency (Feb. 2020).

²² E.g., [Groundwater Information Sheet: Perfluorooctanoic Acid \(PFOA\) and Perfluorooctanesulfonic Acid \(PFOS\)](#), California Water Resources Control Board; 310 Code Mass. Reg. 22.00 Massachusetts Drinking Water Regulations.

chemicals within the class, and (2) EPA's 70 ppt advisory limit for PFOA and PFOS is sufficiently protective.²³ For example, states including Alaska, Minnesota, New Hampshire, New Jersey, New York, and Vermont have policies or have indicated that they are pursuing policies stricter than the EPA advisory limit for PFOA and PFOS.²⁴ Notably, Massachusetts and Vermont each have a health advisory level of 20 ppt for any combination of five PFAS, including PFOA and PFOS.

- **Commercial regulation of PFAS-Containing Products:** Certain states are using consumer protection laws to prohibit specific uses of PFAS or to require businesses producing PFAS-containing products to warn consumers of potential health effects. For example, the State of Washington has added PFAS to its list of chemicals that cannot intentionally be used in food packaging and has banned the use of PFAS in the manufacture of firefighting foam.²⁵ Meanwhile, on November 10, 2018 the California Office of Environmental Health Hazard Assessment added PFOA and PFOS to the list of chemicals known to the state to cause reproductive toxicity for purposes of California's Proposition 65.²⁶ Businesses with ten or more employees are now required to provide a clear and reasonable warning before exposing consumers to either chemical, and it is anticipated that some companies may be more willing to reformulate their products rather than append such labels—a measure that could disrupt product supply chains.
- **PFAS Evaluation at Remediation Sites and Businesses:** Another state approach is to require businesses and responsible parties at remediation sites to evaluate the potential for PFAS contamination near drinking water resources through research into past and present property uses, as well as environmental sampling. For example, in April 2019, California initiated a Phased Investigation Plan to obtain data on PFAS in effluent and drinking water.²⁷ The investigation, which is ongoing, will proceed in three phases: the first two phases will cover primary manufacturing sites, landfills, and properties, such as airports, where releases of PFAS-containing firefighting agents are more likely, while the third phase will cover secondary manufacturers of PFAS-containing products.

Similar measures have been initiated in New York²⁸ and New Jersey,²⁹ where state environmental agencies have directed responsible parties at active remediation sites—including, in the case of New Jersey, sites that have received conditional closure predicated on institutional or engineering controls—to evaluate the potential for PFAS contamination based on historical operations and, if such potential is found to exist, to develop sampling and investigation plans. Besides increasing the litigation risk to businesses identified as having used PFAS in past or present operations, these state initiatives stand to influence the manner in which companies approach remediation projects. For example, given NJDEP's apparent willingness to "re-open" cleanup sites that have been closed out subject to controls, parties performing remediation will have to weigh the costs of achieving conditional closure on a shorter time frame and at lesser cost versus taking more time and incurring greater cost to achieve unconditional closure.

Environmental Groups

Environmental advocacy groups in the United States are very much interested in PFAS, and the state and federal initiatives discussed above have made it easier for such groups to identify potential litigation targets. Specifically, in May 2020, the Environmental Working Group ("EWG") developed an interactive map of 2,337 sites (as of January 2021) with PFAS contamination across forty-nine states: (https://www.ewg.org/interactive-maps/pfas_contamination). Compiled using publicly available information from numerous sources, including the EPA website, the map organizes the sites into three categories: (1) military installations, (2) drinking water systems, and (3) other known sites. In many cases, the map specifies the cause of the contamination (e.g., releases of aqueous fire-fighting foam), the types of PFAS involved, and any analytical data. This information can provide adequate information with which prospective claimants can identify

²³ Lifetime Health Advisories and Health Effects Support Documents for Perfluorooctanoic Acid and Perfluorooctane Sulfonate, Env't. Prot. Agency, 81 Fed. Reg. 33,250 (May 25, 2016).

²⁴ *Drinking Water Health Advisory for Five PFAS*, VT Dep't of Health (July 10, 2018); 310 Code Mass. Reg. 22.00 Massachusetts Drinking Water Regulations.

²⁵ Rev. Code. Wash. § 70A.400 (PFAS in firefighting foam); Rev. Code Wash. § 70A.222 (PFAS in food packaging).

²⁶ 27 CA Code of Reg. § 27001.

²⁷ *State Water Resource Control Board, PFAS Phased Investigation Approach*, CA Water Boards (March 6, 2019).

²⁸ *Guidelines for Sampling and Analysis of PFAS under NYSDEC's Part 375 Remedial Programs*, N.Y. State Dep't of Env't. Conservation (Jan. 2020).

²⁹ New Jersey Safe Drinking Water Act, N.J.A.C. 7:10; Private Well Testing Act, N.J.A.C. 7:9E; Ground Water Quality Standards, N.J.A.C. 7:9C; New Jersey Pollutant Discharge Elimination System rules, N.J.A.C. 7:14A, List of Hazardous Substances, N.J.A.C. 7:1E.

potentially responsible parties and substantiate a claim. In certain instances (more common for the “other known sites” category), the map will even identify the name of the business or property owner, thus obviating the need for further research on the part of prospective claimants. EWG has indicated that the map is “dynamic,” meaning that it will be kept up to date as new information is obtained.

Specific Concerns for Japanese Businesses

Japanese companies may be affected by the regulatory climate surrounding PFAS in various ways. In this section, we will consider how the different causes of actions and actual and prospective regulations may apply to such companies:

Scenario #1 – Product Liability: Product liability may attach to any Japanese company in the chain of business that knowingly distributes PFAS in the United States. This would include both primary manufacturers and secondary manufacturers, including those that based in Japan, as well as United States subsidiaries involved in importing the PFAS-containing products to the United States.

Scenario #2 – Toxic Tort Litigation (Besides Product Liability): As indicated, toxic tort liabilities arise from common law actions, which can be brought by any public or private entity, provided that they are the party that has suffered injury and the specific elements of each cause of action (e.g., negligence, trespass, nuisance, personal injury, inherently dangerous activity, etc.) are satisfied. Toxic tort liabilities generally attach to businesses proximately responsible for causing harmful exposure. In the case of PFAS, this means the entities that release PFAS into the environment, either through accidental spills or deliberate industrial processes and disposal practices. Japanese parent corporations that serve as chemical suppliers should be insulated from such liability, as long as they do not exercise undue operational control over those aspects of their subsidiaries’ business that may give rise to releases (e.g., how to dispose of industrial wastes). Similarly, trading companies that arrange for the importation of PFAS-containing products should not incur such liability, as long as they do not exercise operational control over the products at the time that they are released. On the other hand, United States subsidiaries that engage in industrial operations involving PFAS or that use and dispose of PFAS products in a way that endangers the environment would be most at risk.

Scenario #3 – Statutory Environmental Remedial Liability. Generally, the same businesses that have exposure for toxic tort liability may be exposed to liability under environmental remedial statutes, as these aim to hold the parties directly responsible for causing contamination (as opposed to upstream suppliers) liable for cleanup costs. To determine liability exposure, attention must be paid to the substantive requirements of the statute under which the claim is brought. As of the date of this publication, PFAS are not regulated as “hazardous substances” or “hazardous wastes” under the two main United States federal statutes dictating remediation and cost recovery, CERCLA and RCRA, respectively, although this is expected to soon change. On the other hand, as mentioned above, several states have developed laws and guidance pursuant to which they have issued directives, which impose remedial liability and cost recovery on parties responsible for causing PFAS contamination. In general, the scope of entities that may incur liability under these state laws includes past and present owners and operators of PFAS-contaminated sites, businesses that arrange to dispose of or release PFAS at a given location, or companies engaged in transporting PFAS at the time that a release occurred.

That United States’ statutory liability attaches to past and present owners of contaminated sites also raises liability concerns for Japanese companies that do not themselves deal with chemicals but that acquire other businesses or real estate in the United States. A Japanese company that acquires a fee or leasehold interest in property with PFAS contamination may incur remedial liability as an owner or operator depending on the laws of a given state (and almost certainly after PFAS is added to the CERCLA list of hazardous substances). Thus, Japanese companies that engage in such transactions are encouraged to perform pre-closing acquisition-related environmental due diligence, also known as “All Appropriate Inquiries,” to (a) assess their liability exposure, and (b) if such exposure exists and the applicable law provides, qualify for defenses to remedial liability for pre-existing contamination that they did not cause or exacerbate.

Companies that acquire the equity of a business that is a responsible party at a PFAS remediation site should be insulated from liabilities to the extent that corporate formalities are observed. However, failure to observe these formalities may lead to veil-piercing liabilities or, if the acquiring company exercises undue control, direct liability as an operator. Furthermore, even if the acquiring corporation is not itself deemed liable, PFAS liabilities may impair the value of its investment in the subsidiary. Thus, Japanese companies looking to acquire other businesses in the United States also are encouraged to perform pre-closing environmental transactional due diligence on the par with the standards for All Appropriate Inquiries.

Conclusions

PFAS regulation and liability is a fluid, fast-developing topic in environmental law. Given the pervasiveness of PFAS and the health and environmental risks that PFAS pose, the liability risks are potentially significant. Companies that may have manufactured or used PFAS are encouraged to evaluate present and past products, supply chains, and processes to obtain definitive evidence. If current operations involve PFAS, then the costs and benefits of continued PFAS use should be weighed. For companies that have manufactured or distributed PFAS products, either now or in the past, it may be worthwhile to determine the scope and scale of distribution, as well as any warning statements or health and safety information that may have been issued to customers. Information on how PFAS-containing substances were disposed of or otherwise released to the environment also would be relevant. Moreover, it would behoove any company conducting a PFAS audit of this type to do so under the direction of counsel to maximize the scope of privilege. Finally, Japanese corporations looking to acquire real property or other businesses in the United States are strongly encouraged to account for PFAS in their transactional due diligence.