PFAS Litigation

Emerging Trends for the Latest Emerging Contaminant

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Per- and polyfluoroalkyl substances (PFAS) are the latest set of contaminants to have captured the attention of scientists, regulators, and the public at large. As federal and state governments grapple with how best to regulate these chemicals, litigants are not waiting for answers, but forging ahead. This article will review current PFAS litigation; compare it with litigation over other contaminants, methyl *tert*-butyl ether (MTBE) and perchlorate; and predict how past lessons learned may influence PFAS litigation.

PFAS are a class of thousands of man-made chemicals that have been manufactured and used by a variety of industries since the 1940s. Prized for their strength and heat-resistant properties, PFAS became ubiquitous. Today, they are present in a myriad of household items, like food packaging, stain- and water-repellent fabrics, nonstick cookware, polishes, waxes, paints, and cleaning products. Outside the home, PFAS contamination in the environment can be traced to numerous sources, including releases of PFAS-containing firefighting foams at airports and military installations, and from manufacturing operations, refineries, landfills, and wastewater treatment systems. PFAS are highly mobile in the environment, persistent, and bio-accumulative, earning the moniker "forever chemicals."

Evidence indicates PFAS can accumulate and stay in the human body for long periods of time and that exposure to certain PFAS, even at low levels, can lead to adverse health outcomes. Specifically, studies indicate that perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), two of the most used and studied PFAS, may cause reproductive, development, liver, kidney, and immunological effects. Findings to date link PFAS to low infant birth weights, immunological impacts, cancer, and thyroid disruptions.

Efforts to study PFAS are complicated by the fact that PFAS generally occur in the environment and in living organisms at extremely low levels (in the parts per trillion, or ppt), and accurate testing and analytical technologies are still evolving. Testing is expensive, and there are few labs that can reliably test media like soil and groundwater at those levels. Further, while more testing has been done for widely used PFAS like PFOA and PFOS, there are thousands of PFAS chemicals for which little or no testing has occurred. PFOA and PFOS have been voluntarily phased out by most industrial users but persist in the environment, and their use is still mandated in certain public safety products for which acceptable substitutes are not yet available.

Federal regulatory efforts are nascent but picking up steam and are likely to accelerate during the Biden administration. In 2016, the Environmental Protection Agency (EPA) established a nonbinding health advisory level of 70 ppt in drinking water for PFOA and PFOS combined. In 2019, EPA announced its PFAS Action Plan—a blueprint approach to further study and eventually regulate PFAS. Under the Safe Drinking Water Act, EPA has for years studied PFAS levels nationwide in drinking water systems using the Unregulated Contaminant Monitoring Rule. On February 22, 2021, EPA announced it will sample for and study 29 PFAS chemicals in drinking water between 2023 and 2025 as part of the fifth iteration of that rule. EPA also affirmed its intent to move forward with setting a binding Maximum Contaminant Limit for public drinking water systems nationwide for PFOA and PFOS. Finally, while PFAS are not currently regulated as "hazardous substances" under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), there are strong indications they will be soon. In 2019, EPA issued interim guidance on addressing groundwater contaminated by PFOA and PFOS. President Biden promised during the 2020 presidential campaign to instruct EPA to regulate PFAS chemicals as "hazardous substances" under CERCLA, and all indications are that he will follow through on that pledge.

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While federal efforts are still developing, states have enacted a variety of regulations. About half the states have taken action to regulate PFAS in drinking water, with approximately 16 setting binding regulatory standards and the rest nonbinding guidance. Many states, such as Michigan and Massachusetts, have set regulatory levels far below EPA's 70 ppt health advisory level. Some, like California, are taking targeted action to study entities likely to have released PFAS and to inventory public water supplies. Others are regulating not just drinking water or groundwater, but also PFAS in surface water and soil.

Water districts and utilities, which face potential PFAS liability for contaminated water supplies, are active litigants in suits against entities allegedly responsible for PFAS releases.

Airports deserve special attention as they are in a unique regulatory bind. Airports with commercial air service are required by the Federal Aviation Administration (FAA) to maintain certain levels and types of fire extinguishing agents (known as aqueous film-forming foam, or AFFF) for aircraft rescue and firefighting vehicles and operations. FAA requires that AFFF meet military specifications for performance, which generally means that it contains PFOA and PFOS. In order to ensure that an operator follows these requirements, FAA further mandates that aircraft rescue and firefighting vehicles be tested at least once per year by discharging AFFF fire-extinguishing agents. Thus, for decades airports have released PFAS-containing AFFF as part of routine testing, as well as in response to fuel fires, and FAA *still* requires airports to use AFFF despite what is now known about the risks of PFAS. FAA issued guidance in 2019 suggesting airports could use other testing methods. However, FAA has not yet identified an adequate, non-PFAS substitute for AFFF or proposed any changes to regulatory requirements, so airports remain constrained and face outsized legal vulnerabilities related to their (mandated) historical and ongoing use of PFAS.

Current (and Expected Future) PFAS Litigation

As the effects and wide use of PFAS have become more apparent, litigation has exploded. The "first wave" of PFAS litigation has generally involved suits against primary manufacturers of PFAS, a relatively small group that includes chemical giants like DuPont and 3M. Plaintiffs (including individuals, water districts, and municipalities) have asserted personal injury and products liability claims, and a number of states (including New York, Michigan, and Minnesota) have alleged environmental damage to state natural resources, including groundwater.

Several such cases resulted in large settlements. The multidistrict litigation (MDL) in the Southern District of Ohio consolidated approximately 3,500 personal injury cases against DuPont for exposure to PFAS from its Washington Works Plant in West Virginia, where PFAS was manufactured for decades. Plaintiffs alleged that their diseases were caused by PFAS exposure from the plant and brought claims of personal injury, wrongful death, fraud, conspiracy, trespass, battery, and others. A settlement agreement was reached in 2017 for $671 million, though post-settlement cases remain before the court. *See In re E. I. du Pont de Nemours & Co. C-8 Pers. Inj. Litig.*, No. 2:13-md-2433 (S.D. Ohio consolidated Apr. 9, 2013). In another case, Minnesota sued 3M for natural resource damages to groundwater due to releases of PFOA from 3M's Scotch Guard Plant. The parties settled for $850 million in 2018. *See Minnesota v. 3M Co.*, No. 27-CV-10-28862 (Minn. Dist. Ct. agreement entered Feb. 20, 2018).

Water districts and utilities, which face potential PFAS liability for contaminated water supplies, are active litigants in suits against entities allegedly responsible for PFAS releases. For example, in December 2020, a group of local water districts in Orange County, California, filed a lawsuit against PFAS manufacturers and a consumer product manufacturer alleging defective design, failure to warn, trespass, nuisance, negligence, fraud, and violations of the Orange County Water District Act. The water districts seek compensatory, exemplary, and punitive damages, and an order declaring the defendants financially responsible for abating PFAS contamination of groundwater, including the aquifer within Orange County Water District's service area and contaminated wells. *See Orange Cnty. Water Dist. v. 3M Co.*, No. 30-2020-01172419-CU-PL-CXC (Cal. Super. Ct., Orange Cnty., filed Dec. 1, 2020). In Pennsylvania, a water utility sued 3M, several DuPont-affiliated entities, and a dozen other prominent PFAS manufacturers seeking reimbursement for abatement and cleanup costs and punitive damages under theories of public nuisance, strict liability, and various products liabilities claims under Pennsylvania law. *Pa.-Am. Water Co. v. 3M Co.*, No. 1:21-cv-00258-JPW (M.D. Pa. removed Feb. 11, 2021). Notably, the water utility also alleged that DuPont knew of the dangers of PFAS and intentionally and deceptively reorganized its corporate structure by transferring all potential PFAS liabilities to Chemours, an insolvent spin-off company that existed primarily to house DuPont's debts and environmental liabilities.

Another MDL is ongoing in the District of South Carolina against eight manufacturers of PFAS. This case consolidated approximately 500 products liability cases brought by states, cities, airports, and others regarding releases from AFFF. The most common claims are failure to warn of the dangers of PFOA and PFOS in AFFF and defective design. Water authorities assert defendants knew or reasonably should have known that their PFAS-laden products would result in the spill,

discharge, or release of PFOA and PFOS onto land or into water such that it would seep into their wells. The MDL is in discovery, and decisions to come will likely impact litigation over AFFF and other PFAS products going forward. *See In re AFFF Prods. Liab. Litig. MDL*, No. 2:18-mn-2873-RMG (D.S.C. consolidated Dec. 7, 2018).

"Second wave" cases against secondary manufacturers of products that contain PFAS have also seen success. For example, Michigan and two townships sued Wolverine Worldwide, a footwear company, for PFAS-related groundwater claims, settling in early 2020 for $70 million. *Mich. Dep't of Env't Quality v. Wolverine World Wide, Inc.*, Case 1:18-cv-00039 (W.D. Mich. filed Jan. 10, 2018). More such suits against secondary manufacturers are expected.

A "third wave" of cases under CERCLA is lurking on the horizon if PFAS are designated as CERCLA hazardous substances. Under CERCLA, liability is strict, joint, several, and retroactive, meaning CERCLA liability may soon apply to all current and former owners and operators of facilities from which there were PFAS releases, generators of PFAS, parties that arranged for the disposal or transport of PFAS, and transporters of PFAS that selected PFAS disposal sites. Designation under CERCLA will result in an explosion of lawsuits asserting CERCLA liability against a wide variety of entities and will trigger suits among those entities for allocation of PFAS-related response costs. It is not clear that any of CERCLA's exceptions or exemptions to liability would apply, even to entities like FAA-regulated airports that have been required to release AFFF. *See, e.g.*, *United States v. Freter*, 31 F.3d 783, 788 (9th Cir. 1994) (construing CERCLA's "federally permitted release" exemption narrowly and to require a release subject to a permit issued under one of 10 enumerated statutory provisions).

Lessons Learned from Other Emerging Contaminants

Litigation involving two other contaminants, methyl tertiary butyl ether (MTBE) and perchlorate, may provide insight for PFAS litigation.

MTBE and PFAS share several common attributes but also have key distinctions. MTBE was widely used as an oxygenate additive to replace lead in gasoline. Much like PFAS, MTBE is soluble in water and dissolves quickly, meaning it is conveyed in groundwater and can threaten drinking water sources in ways that make cleanup and tracing difficult. However, unlike PFAS, which are widely used in many different forms and products, MTBE was a largely uniform additive used by a limited scope of entities: gasoline producers and oil refiners. Additionally, there is no clear consensus regarding the health impacts of MTBE, while there is greater evidence of adverse health impacts associated with at least some PFAS.

Despite the uncertainty around health effects, a wide variety of plaintiffs, including individuals, water suppliers, and government entities, brought MTBE lawsuits in state and federal courts over the past few decades, mainly against manufacturers of MTBE and gasoline. Like the first wave of PFAS litigation, MTBE plaintiffs asserted claims under many theories, including natural resource damages, defective design, failure to warn, and nuisance. While many individual claims failed for lack of standing, counties, municipalities, and water utilities were successful with claims based on a defective product theory similar to those raised in the first wave of PFAS litigation. *See S. Tahoe Pub. Util. Dist. v. Atl. Richfield Co.*, No. 999128 (Cal. Super. Ct. Aug. 5, 2002).

Much like the current PFAS MDL, the MTBE MDL *In re MTBE Products Liability Litigation*, Case No. 1:00-cv-01898, which is still ongoing in the Southern District of New York, initially involved multiple types of plaintiffs. Defendants were primarily manufacturers and industrial users of MTBE, including gasoline and energy companies. The court allowed plaintiffs to rely on a "commingled product" theory of liability, developed by the court to address the particular facts of the case, and under which suppliers of products that had mixed together could be held liable for a single indivisible injury to a contaminated water supply. Individual defendants could exculpate themselves by showing that their product could not have been among the commingled products. Following this ruling, most defendants settled, but a few remain involved in litigation. This is a tempting precedent for plaintiffs to try to employ in PFAS litigation because, if successful, the commingled product theory could lessen plaintiffs' evidentiary burden by helping to mitigate the fact that PFAS are ubiquitous and difficult to trace back to a specific source.

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One open question is how increased regulation of PFAS, including regulatory approval of substitutes where PFAS use is mandated, could impact ongoing litigation. For example, MTBE is no longer used in significant quantities after the 2005 Energy Policy Act caused refiners to make a wholesale switch to ethanol. Most MTBE litigation has been resolved or is winding down, but there are a few newer cases. *See, e.g.*, *Maryland v. Exxon Mobil Corp.*, No. 1:18-cv-00459 (D. Md. removed Feb. 14, 2018).

Perchlorate is another emerging contaminant that offers lessons for PFAS. Similar to PFAS, there is ongoing debate about what levels of perchlorate can harm human health. Like PFAS, public health concerns over perchlorate (by and large, disruptions to the thyroid gland) have increased over time, yet perchlorate is not regulated at the federal level. While PFAS

will likely be federally regulated under both the SDWA and CERCLA, EPA determined in June 2020 that it would not develop drinking water standards for perchlorate and has not indicated it will designate perchlorate as a listed hazardous substance (though this could, of course, change under the Biden administration). As with PFAS, states have enacted perchlorate standards, which vary widely. Like PFAS, considerable uncertainty exists for perchlorate regarding applicable regulatory standards, proper cleanup approaches, and costs. This uncertainty, in turn, leads to litigation risks, such as questions about what legal theories are viable for cost recovery or damages, how to tackle evidentiary problems, and long-term liability.

Practitioners evaluating litigation related to PFAS should take away this key lesson from earlier litigation regarding other emerging contaminants: Scientific uncertainty translates to litigation uncertainty.

In the absence of clear standards, public officials may act quickly to respond to perceived public health threats, but unwise action can create problems for future litigation to recover costs or damages. The Rialto-Colton basin perchlorate litigation offers a cautionary tale. When the City of Colton, California, found detectable levels of perchlorate in its drinking water, it took swift action to install treatment systems in response to public health concerns. However, the City made this decision in closed-door sessions without written analysis, inconsistent with procedures required for cost recovery under CERCLA, which ultimately prevented the City from recovering response costs from those allegedly responsible for the contamination. *See City of Colton v. Am. Promotional Events, Inc.*, No. CV 05-1479-JFW, 2006 WL 5939684 (C.D. Cal. Oct. 31, 2006).

The use of novel chemical analyses warrants additional attention when litigating over emerging contaminants like PFAS and perchlorate. In the case of perchlorate, chemical fingerprinting can be used to distinguish the source, particularly whether it was industrial, agricultural, or naturally occurring. Similarly, chemical fingerprinting could serve as a useful tool for PFAS attribution, and many environmental consultants are creating and refining methods for PFAS forensics. However, as discussed in more detail below, because this is an emerging area of science, care must be taken to ensure the evidence meets the required federal or state scientific standards for admissibility.

How Past Lessons Might Apply to PFAS Litigation

Practitioners evaluating litigation related to PFAS should take away this key lesson from earlier litigation regarding other emerging contaminants: Scientific uncertainty translates to litigation uncertainty.

Take, for example, a city with PFAS contamination in its groundwater. The city hires an expert to determine the source of that contamination. However, without a clearly established and widely accepted PFAS fingerprinting procedure, there is substantial risk that the expert's testimony and analysis will be subject to evidentiary challenges. The City of Pomona, California, experienced this when attempting to hold a particular corporation liable for perchlorate contamination in its groundwater supply. Pomona's expert witness traced the perchlorate to the corporation using a methodology the corporation later challenged as insufficiently reliable. The district court agreed. While the Ninth Circuit ultimately reversed, concluding the methodology *was* sufficiently reliable, the case nevertheless provides important lessons for prospective litigants using a developing methodology to fingerprint PFAS. *See City of Pomona v. SQM N. Am. Corp.*, 750 F.3d 1036 (9th Cir. 2014).

As another example, consider a party that discharged PFAS before the harms of PFAS contamination were fully understood, or after those harms were understood to some degree, but the contaminants were not yet subject to regulation. The lag time between discharge and regulation can lead to uncertainty in demonstrating contribution to harm, and in determining and assessing compliance with the appropriate standard of care. Previous emerging contaminant litigation is instructive on this issue as well. In actions seeking contribution for cleanup costs under CERCLA, courts have considered whether contaminants were recognized as environmental issues of national interest and whether they were regulated by EPA in determining whether a potentially responsible party's release of the contaminant violated the then-applicable standard of care. *See Lockheed Martin Corp. v. United States*, 35 F. Supp. 3d 92 (D.D.C. 2014).

Experience with previous emerging contaminants also offers lessons for mitigating PFAS litigation risks. For instance, the ability to detect perchlorate at ever lower concentrations is leading to its discovery at more and more places. Thus, a property owner might only discover perchlorate contamination years after purchase or at the time of subsequent sale. PFAS testing similarly continues to improve, with property owners finding they may have a PFAS concern now even if earlier testing did not reveal it. PFAS are even more complicated because the compounds are a broad family of chemicals, not a single compound. With the very low detection limits now available for PFAS, many entities may be reluctant to test for fear PFAS will be found everywhere. Yet, how entities look for, manage, and respond to such information can affect allocation of liability and costs in profound ways, with respect to both liability (onsite and offsite) and the costs of remediation. As one example, knowing that soil is contaminated can be key to proper management and containment. Promptly taking steps to address a groundwater plume might prevent the plume from commingling with other plumes and could drastically reduce liability and response costs.

Taking reasonable steps to manage PFAS now, even before binding federal regulation, is therefore prudent. Exercising the proper degree of care and cooperating fully with regulators can be two key components for allocation in a CERCLA cost-recovery case (two of the factors courts use to evaluate and assign cost shares). *See Env't Transp. Sys., Inc. v. ENSCO, Inc.*, 969 F.2d 503, 508 (7th Cir. 1992) (enumerating "Gore factors"). Entities that may not have a persuasive case when it comes to other factors (like amount of historical PFAS releases) may still be able to persuade a reviewing court to reduce their share of costs by showing they took prompt and appropriate steps to mitigate PFAS contamination, even in the absence of binding requirements.

Of course, PFAS litigation is also likely to differ from litigation regarding past emerging contaminants. PFAS are present in multiple media—groundwater, surface water, soil, and even air—and may ultimately be subject to multiple overlapping, if not conflicting, regulatory schemes. PFAS are also present in multiple products. This means that unlike with MTBE—where the MDL involved a handful of defendant companies—a PFAS MDL or CERCLA cost-recovery action could include hundreds of entities. Multiple pathways for exposure and multiple potential defendants will likely make it harder to show causation and link harms to a particular defendant. Litigation may also be complicated by the fact that PFAS are linked to adverse health outcomes at such low concentrations, making it difficult to establish a level of contamination that would be too low for liability.

Advice for PFAS Litigants

With this context in mind, potential PFAS defendants should proactively assess possible liability and develop policies and procedures to mitigate their exposure and safeguard their ability to recover costs in the future. This work will involve the assistance of qualified legal counsel as well as environmental consultants. While the particular strategies for each organization will necessarily vary, in general, entities should consider (1) documenting historic PFAS uses, sources, and time frames; (2) acting to minimize future releases by using best management practices, staying up to date on government guidance and regulatory developments, and properly accounting for any contaminated water, soil, or other media; and (3) cooperating with government authorities and regulators to minimize potential liability under CERCLA and tort, including consideration of the Gore factors and the appropriate standard of care in evaluating options. Entities that envision potential CERCLA cost-recovery litigation in their future should maximize their ability to recover remediation costs by complying with the CERCLA regulations for cost recovery (the National Contingency Plan or NCP) and evaluating insurance recovery options (i.e., policies pre-1986) that may provide additional funding. They should accurately and intentionally manage public communications and be sure to appropriately disclose potential PFAS liability risk in official statements and bond documents.

The large payouts some PFAS plaintiffs have earned are attractive, and in the right circumstances, lawsuits against manufacturers of PFAS (and against manufacturers of PFAS-containing products) are certainly viable. But in some situations, liability and causation may be hard to prove. When federal regulations are in place and applied, and PFAS forensic tools and methodologies are developed and vetted in bellwether litigation, potential PFAS litigants will have much more information to apply to their legal theories and use to craft their claims. For now, would-be PFAS plaintiffs will need to weigh not only the facts of their case, but also the reality that delaying litigation may have both benefits, such as greater scientific and legal certainty, and risks, such as potential statute of limitations issues and defendant financial difficulties.

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