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### WHAT'S IN YOUR WATER?

EMERGING GROUNDWATER CONTAMINATION AND REGULATION ISSUES

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#### Introduction

- In recent years, there has been a new focus on groundwater contamination and the threat it poses to the safety of communities' drinking water.
  - MTBE → PCE/TCE → lead → PFAs → 1,4-dioxane
  - Recent high-profile examples include perfluorooctanoic acid ("PFOA") contamination in Hoosick Falls, NY, and Parkersburg, WV.
- This presentation provides an overview of two of those compounds and the risks that they pose to drinking water:
  - PFAs (PFOA and its related compounds)
  - 1,4-dioxane
- We will also examine steps taken by EPA and certain states to regulate these chemicals, and review several recently filed lawsuits.

#### Perfluorooctanoic Acid ("PFOA")

- PFOA is used in the manufacturing process of fluoropolymers, including some Teflon® products.
- According to the American Cancer Society, PFOA is a potential health concern because it can stay in the environment and human body for long periods of time.
- Studies on lab animals have found that exposure to PFOA increases the risk of certain tumors in the liver, testicles, mammary glands, and pancreas of these animals. It is unclear whether the chemical affects humans the same as it does animals.
- The International Agency for Research on Cancer has classified PFOA as "possibly carcinogenic to humans," but EPA has not officially classified PFOA as to its carcinogenicity.
- Related compounds: PFOS, PFNA, PFAS, PFES, "GenX"

#### 1,4-Dioxane

- 1,4-dioxane is produced as a by-product from ethoxylation of other chemicals.
  - As such, it may be present as a by-product in many goods, including paint strippers, dyes, greases, antifreezes, and aircraft deicing fluids, and some consumer products.
- Historically, it was widely used as a stabilizer in chlorinated solvents such as 1, 1, 1-trichloroethane ("TCA").
- Since TCA was phased out under the Montreal Protocol in 1995, 1,4-dioxane production has decreased.

#### 1,4-Dioxane

- 1,4-dioxane is highly mobile, completely miscible in water, and does not readily biodegrade.
- Identified at 34 sites on the Superfund National Priorities List.
- EPA's 2016 Chemical Data Reporting estimated that 1 million pounds are produced per year, 675,000 pounds of which were released into the air, water, and land.
- EPA has classified it as "likely to be carcinogenic to humans." (EPA IRIS 2013)
- The International Agency for Research on Cancer has classified it as "possibly carcinogenic to humans."

### Federal Regulation

#### Avenues for Regulation by EPA & the States

- The two federal environmental laws most relevant to regulation of these chemicals include the Toxic Substances Control Act (TSCA) and the Safe Drinking Water Act (SDWA).
  - TSCA governs use of the chemicals.
  - SDWA governs permissible levels in drinking water.
- EPA has been charged with implementing these statutes and promulgating rules to manage the risks of certain chemicals.
- Unless federal preemption applies, states may also regulate chemicals.

### Toxic Substances Control Act ("TSCA") – 15 U.S.C. §§ 2601-2692

- TSCA, which was originally enacted in 1976, was largely viewed as one of the least effective federal environmental laws.
- To remedy its deficiencies, in June 2016, Congress overwhelmingly passed, and President Barack Obama signed, the Frank R. Lautenberg Chemical Safety for the 21st Century Act.
  - Governs reporting, recordkeeping, and testing requirements
  - Also allows EPA to enact regulations on a chemical's use
- In July 2017, EPA issued final rules re: Prioritization of Chemicals ("Prioritization Rule") and the Risk Evaluation Process.
- Under the Prioritization Rule, if a chemical is given a High Priority designation (as opposed to Low Priority), EPA must conduct a risk assessment for that chemical.

#### **TSCA Risk Evaluations**

- When conducting a Risk Evaluation, EPA issues a scoping document, then conducts a hazard assessment, exposure assessment, and risk characterization.
- If, at the end of this process, EPA determines that the chemical poses an unreasonable risk of injury to human health or the environment, this triggers a rulemaking.
- Under the rulemaking, EPA must promulgate a rule to manage the risk of the chemical so that it no longer presents the unreasonable risk.

#### TSCA & 1,4-Dioxane

- On November 29, 2016, shortly after the newly amended TSCA was passed, EPA identified the first ten high priority chemicals for risk evaluations. This list, which was picked from the 90 chemicals listed in EPA's October 2014 TSCA Work Plan, included 1,4-dioxane.
- On December 29, 2016, EPA initiated its risk evaluation by beginning work on the Scope document, which was finalized in June 2017.
- This Scope identified the hazards, exposures, conditions of use, and potentially exposed/susceptible subpopulations EPA expected to consider in its risk evaluation.

#### TSCA Scope for 1,4-Dioxane

- Conditions of Use the circumstances under which a chemical is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.
  - Identified uses include as a processing aid during wood pulping, pharmaceutical manufacture, laboratory chemical reagent, and in adhesives.
- Exposures in addition to occupational exposures for the above referenced uses, EPA has identified an "oral" exposure risk through ingestion of contaminated water, as well as bathing with contaminated tap water.
- Potentially exposed or susceptible subpopulations include workers and occupational non-users, as well as individuals who work/live near manufacturing, processing, distribution, or disposal sites.
- Hazards EPA expects to examine cancer risks, as well as irritation risks to eyes, nose, and throat.

#### **TSCA Preemption of State Laws**

- Section 13 of new-TSCA governs the preemption of state laws.
  - Because EPA previously had limited activity, states were generally responsible for regulating chemicals, thus creating "patchwork" regulation.
- Under new-TSCA, EPA is expected to promulgate many new final rules, leading to an increase in the preemption of state laws.
- States cannot implement new restrictions on the use of chemicals determined not to pose an unreasonable risk of injury, or when EPA takes final action to address the chemical's risks (including chemicals for which EPA has issued a significant new use ("SNU") rule).
- Thus, if EPA determines that a chemical does not present an unreasonable risk, such a decision would generally preempt state laws that would contradict this conclusion.
- Not triggered by a low-priority designation

#### **Preemption As-Applied to 1,4-Dioxane**

- Another TSCA preemption provision is the "High Priority Pause"
- Under this provision, state actions to regulate a chemical for which EPA is conducting a risk evaluation are paused for 30 months or the date of completion of the risk evaluation, whichever is shorter.
- Because EPA is currently conducting a risk evaluation for 1,4-dioxane, this
  means that states cannot enact new statutes or regulations governing its use.

#### Steps Taken by EPA to Regulate PFOA

- In 2006, EPA and eight manufacturers who used PFOA agreed to a "stewardship program,"
  which aimed to reduce factory emissions and product content levels of PFOA by 95% by 2010
  and to eliminate PFOA from emissions and product contents by the end of 2015. This program
  has led to a large decrease PFOA use.
- Since the commencement of this stewardship program, DuPont, one of the largest generators of PFOA, introduced in 2009 "GenX" to replace PFOAs.
  - EPA has indicated that this summer, it expects to issue health advisories for GenX and PFES, a related chemical.
- Others also manufacturing, using PFOA-replacement chemicals.
- On Sept. 30, 2013, EPA issued a rule requiring companies to report all carpet-related new uses of certain PFOA-related chemicals
  - If a company intends to manufacture or import these chemical substances for use in carpets, they
    must report this to EPA.
- SNUR proposed by EPA in 2015 requiring companies to report new uses of PFOA or PFOA—related chemicals 90 days prior to use.

### Safe Drinking Water Act ("SDWA") – 42 U.S.C. § 300 et seq.

- First passed in 1974, and reauthorized in 1986 and 1996, the SDWA requires public drinking water systems to test water provided to customers for certain contaminants and report results to customers, state regulatory agencies, and EPA.
- EPA identifies potential contaminants of drinking water, evaluates them, and, depending on the results, develops regulatory standards for them.
- These standards are maximum contaminant levels ("MCLs")
- Every 5 years, EPA must also publish a list of no more than 30 unregulated contaminants for monitoring.



#### Safe Drinking Water Act ("SDWA")

- Since 1996, EPA has not added any new contaminants to its regulated list.
- No federal MCL for 1,4-dioxane
  - EPA risk assessments indicate that there is a 1-in-a-million cancer risk for a drinking water concentration of 350 ppt.
- On May 19, 2016, EPA issued a health advisory for PFOA to provide drinking water system operators with information on the health risks of PFOA so they can take appropriate actions to protect residents.
  - The advisory level was established at 70 parts per trillion.

### State Regulation

### Steps Taken by States to Regulate PFOAs and 1,4-Dioxane

- Due to the fact that EPA has not issued any binding MCLs for PFOAs or 1,4-dioxane, states have recently either pressed EPA to take more rigorous actions or moved to develop their own protective standards.
- On January 12, 2018, the Association of State Drinking Water Administrators ("ASDWA"), wrote to EPA Administrator Scott Pruitt urging EPA to form a working committee with ASDWA, the Centers for Disease Control and Prevention, and the Department of Defense.
- ASDWA hopes that such a committee can develop a unified message on contaminants, which can then be transferred from the federal government to the public and state regulators in a coherent fashion.
- ASDWA also lamented that different MCL limits that were being set by different states
  were sending a conflicting message as to what the safe limits were.

### State 1,4-Dioxane Drinking Water and Groundwater Standards (in ppt)

- Alaska 77,000
- California 1000
- Colorado 350
- Connecticut 3000
- Delaware 6000
- Florida 3200
- Indiana 7800
- Maine 4000
- Massachusetts 300

- Mississippi 6090
- New Hampshire 250
- New Jersey 400
- North Carolina 3000
- Pennsylvania 6400
- Texas 9100
- Vermont 3000
- Washington 438
- West Virginia 6100

#### **State PFOA Standards**

- EPA non-binding advisory limit for PFOA: 70 ppt
- Three states Minnesota, New Jersey, and Vermont have established standards that are more protective than EPA's limit.
  - Minnesota 35 ppt
  - New Jersey 14 ppt
  - Vermont 20 ppt
- At 14 ppt, New Jersey's standard is the most protective in the country. This binding MCL was set in November 2017 and lowered the previously recommended advisory/guidance level of 40 ppt from 2007.
- In recent years, twelve public water systems in New Jersey have detected PFOA at concentrations above 40 ppt.
- Michigan has also developed a drinking water and groundwater standard of 70 ppt combined PFOA and PFOS. This standard is used in site remediation and enforcement.

#### New York Action on PFOAs & 1,4-Dioxane

- New York, which is one of the states that has received the most press regarding PFOA contamination due to Hoosick Falls, has recently taken both regulatory and appropriation-based steps to combat risks to drinking water.
- New York currently regulates both PFOAs and 1,4-dioxane as unspecified organic contaminants with generic MCLs of 50,000 ppt (50 ppb).
- The State's 2017-18 enacted budget requires the Department of Health to develop a list of emerging contaminants for which public water systems will be required to test at least every three years. This list must include three substances PFOA; 1,4-dioxane; and PFOs.
- On February 26, 2018, the state's drinking water panel indicated that it is considering enacting a standard of 350 ppt for PFOA, which would represent a 1-in-a-million cancer risk.

#### New York Action on PFOAs & 1,4-Dioxane (continued)

- If adopted, the panel estimated that this standard would require treatment at 1685 wells in New York, with \$2.5 billion in capital costs plus annual operations and maintenance fees of \$253 million.
- The Long Island Water Conference, a coalition of more than 50 water suppliers and industry professionals, estimates that this standard would double the cost of water on Long Island.
- Were New York to adopt a less restrictive standard of 3500 ppt, estimates for capital expenditures and annual fees would drop to \$897 million and \$62.6 million, respectively.

#### New York Action on PFOAs & 1,4-Dioxane (continued)

- The panel estimates that PFOA treatment costs would range from \$300 million to \$3.2 billion for capital costs and \$17.8 million to \$176 million in annual fees depending on the selected threshold.
- The 2017-18 budget includes \$2.5 billion for clean water capital infrastructure projects, including money to help mitigate contamination and remediate sites.
- NY Senator Kristen Gillibrand has also introduced a bill (S.519) that would require EPA to develop MCLs for PFOA and 1,4-dioxane.
  - Bill has been referred to the Committee on Environment and Public Works
- On February 26, 2018, the Natural Resources Defense Council wrote to the N.Y. Dep't
  of Health, urging it to adopt PFOA and PFOS MCLS between 4 to 10 ppt.
- Announced in early April 2018, the N.Y. Dep't of Environmental Conservation is requiring owners of remediation sites to test 1,4-dioxane and PFAS.

#### Proposition 65

- Passed through a voter referendum in California, Proposition 65 is California's Safe Drinking Water and Toxic Enforcement Act of 1986.
- The act is administered by the California Office of Environmental Health Hazard Assessment and regulates substances that California lists as having a 1 in 100,000 chance of causing cancer.
- Currently regulates 1,4-dioxane at 1000 ppt.
- Remains controversial because it places the burden on industry, instead of the government, to prove that substances are not harmful, essentially making them prove a negative.

# Case Studies & Trends

#### Theories of Liability Being Pursued

- Public Nuisance and Private Nuisance
- Trespass
- Negligence
- Abnormally Dangerous/Ultra Hazardous Activities
- Failure to Warn
- Design Defect
- Declaratory Judgment Actions (for, e.g., indemnity, remediation)
- On the horizon?
  - Fraud
  - State Statutory Consumer Protection Statutes & Other State Codified Analogs of Common Law Claims
  - Conspiracy
  - Infliction of Emotional Distress
- Claims for both Property Damage and Personal Injury/Medical Monitoring

#### Who Is Bringing These Suits, and How?

- Private Party Actions
  - Individual Plaintiffs/MDLs
  - Class Actions
- Municipal Water Authority/Water District Actions
- Federal Agency Enforcement

### In re: E.I. du Pont de Nemours & Co., C-8 Personal Injury Litigation, Case No. 2:13-cv-00136 (S.D. Ohio)

#### Background:

- EPA administrative actions (SWDA, TSCA, RCRA) and settlement (2005)
- Private party actions, including a class action filed in 2001; settled in 2005 (\$235 million for health monitoring of class members and \$70 million for health and education programs), but personal injury and wrongful death claims still permitted if a plaintiff suffered from one of six identified diseases.
- Over 3,500 individual claims filed; consolidated in 2013 in an MDL (S.D. Ohio).
- In October 2015, the first of the DuPont PFOA bellwether trials was decided in favor of a woman claiming DuPont's dumping of the chemical into the Ohio River caused her to develop kidney cancer. She was awarded \$1.6 million in compensatory damages.
- In July 2016, another bellwether case was decided, when a jury awarded a man, who alleged DuPont caused him to develop testicular cancer, \$5.1 million in compensatory damages and \$500,000 in punitive damages.
- In December 2016, a man was awarded \$2 million in compensatory damages. On January 5, 2017, a jury awarded him \$10.5 million in punitive damages.
- On February 13, 2017, DuPont announced that it had agreed to pay \$671 million to settle the remaining claims.

#### Hoosick Falls, New York - Baker v. Saint-Gobain

- In 2014, elevated levels of PFOA were discovered in the village's water system.
- In January 2016, the NYSDEC added the Saint-Gobain Performance Plastics site to New York's Superfund list and requested that EPA include the site on its federal Superfund list.
- Listed as a federal Superfund site in July 2017.
  - NYSDEC is the lead agency for the investigation; EPA is coordinating the investigation and cleanup efforts with NYSDEC.
- Multiple state and federal court cases filed, beginning in February 2016; new suits continue to be filed.

#### Hoosick Falls, New York - Baker v. Saint-Gobain

- In July 2016, four cases pending before the U.S. District Court for the Northern
  District of New York were consolidated under the *Baker* docket (16-CV-917), now the
  lead case for suits involving PFOA contamination of water sources in and around
  Hoosick Falls.
  - Master Consolidated Class Action Complaint filed August 26, 2016
  - Causes of action included negligence, private nuisance, trespass, strict liability for abnormally dangerous activity, and injunctive relief (biomonitoring and remedial measures)
  - Allege personal injury and property damages, and seek monetary damages, among others
  - Contamination alleged due to PFOA use in manufacturing processes, and production of PFTEcontaining products
- September 26, 2016: Defendants Honeywell Int'l and Saint-Gobain moved to dismiss.
- February 6, 2017: Motion granted in part and denied in part.
- Defendants moved for leave to file an interlocutory appeal, which was granted on December 8, 2017; request to stay the district court proceedings denied.

#### Cook v. Village of Hoosick Falls, et al. (N.Y. Sup. Ct.)

- Just filed last week on April 10, three individual plaintiffs brought suits against the Village of Hoosick Fall, Saint-Gobain Performance Plastics Corp., and Honeywell Int'l in New York state court regarding the PFOA contamination in Hoosick Falls.
- The complaint alleges that PFOAs were discharged from a plastics plant that is currently operated by Saint-Gobain and formerly operated by Honeywell.
- The three individuals allege that they used to drink, cook with, and bath in the public drinking water and they now have PFOAs in their blood.
- Claims are for negligence, strict liability for abnormally dangerous activity, private nuisance, and punitive damages.

### Suffolk County Water Authority v. Dow Chemical Company, et al., No. 2:17-cv-6980 (E.D.N.Y)

- On November 30, 2017, the Suffolk County Water Authority (the "Authority"), which services 1.2 million residents in eastern Long Island, filed suit against five corporate defendants, alleging 1,4-dioxane contamination to its drinking water wells:
  - Dow Chemical Company
  - Ferro Corporation
  - Vulcan Materials Company
  - Procter & Gamble Company
  - Shell Oil Company
- The complaint alleged that 1,4-dioxane was used and discharged in the vicinity of the Authority's drinking water wells and migrated from multiple sources through the subsurface and into groundwater and the Authority's wells.

### Suffolk County Water Authority v. Dow Chemical Company, et al., No. 2:17-cv-6980 (E.D.N.Y)

- Rather than just suing entities that may have discharged 1,4-dioxane directly into the Long Island environment (e.g. as part of the manufacturing process), the water authority sued entities that manufactured, distributed, retailed, and advertised industrial/commercial products that contain 1,4-dioxane that were sold to and used by third parties in Long Island.
  - The complaint brings six causes of action:
    - Strict products liability for defective design & failure to warn
    - Negligence
    - Public and private nuisance
    - Trespass
- The suit alleges that the defendants manufactured/sold/advertised products containing 1,4dioxane with the knowledge that it would inevitably reach groundwater and then pollute drinking water wells.
- On March 23, 2018, the defendants collectively moved to dismiss on numerous grounds, including statute of limitations, lack of duty, and failure to adequately plead causation.

### Suffolk County Water Authority v. The 3M Company, et al., No. 2:17-cv-6982 (E.D.N.Y)

- Also on November 30, 2017, Suffolk County Water Authority filed suit alleging PFOA and perfluorooctane sulfonic acid ("PFOS") contamination to drinking water against the following five corporate defendants:
  - 3M Company
  - Tyco Fire Products, LP
  - Chemguard Inc.
  - Buckeye Fire Equipment Company
  - National Foam, Inc.
- Like the Authority's 1,4-dioxane lawsuit, this suit sues entities that allegedly manufactured/sold/marketed aqueous film-forming foam to third parties who used them in Long Island.

### Suffolk County Water Authority v. The 3M Company, et al., No. 2:17-cv-6982 (E.D.N.Y)

- This foam, which contains PFOAs/PFOS, is a firefighting product that is used to control and extinguish aviation, marine, fuel, and other flammable liquid fires.
- The complaint identifies three Suffolk sites from which the foam was allegedly discharged:
  - Francis S. Gabreski Airport and Gabreski Air National Guard Base in Suffolk County, where it was allegedly used for 50 years during training exercises
  - Suffolk County Firematics Training Facility, where it was used until 2016 for firefighting activities
  - Hawkeye Energy Plant, which uses kerosene as its primary fuel type, and therefore would have likely used the foam agent to extinguish any fires
- 3M, Tyco, and Chemguard have indicated that they intend to file motions to dismiss, arguing, among other things, lack of duty and failure to plead causation.

### Singer v. The 3M Company, et al., No. 2:17-cv-6962 (E.D.N.Y.)

- Residents of the town of Yaphank, NY filed a class action against the same Suffolk
  County v. 3M defendants for PFOA drinking water contamination that arose out of the
  Suffolk County Firematics Training Facility (filed one month prior to the Suffolk
  County cases). They have also sued the County of Suffolk, which was the operator
  of the Training Facility.
- Yaphank is downgradient of Facility, and the plaintiffs allege that PFOA has been detected on-site at 170 to 418 ppt and off-site at 93 to 986 ppt
- Plaintiffs allege personal injury, bioaccumulation of PFOA, and property damage.
  - The property damage claims allegedly arise from the need to remediation property, diminution of value, and accumulation of PFOA in pipes, faucets, showerheads, and appliances.
- Case was originally filed in NY state trial court but was subsequently removed to the Eastern District of NY pursuant to the federal Class Action Fairness Act. A motion to remand is pending.

### Chemistry Council of New Jersey v. N.J. Dep't of Environmental Protection, 2017 WL 6492521 (N.J. Super. Ct. App. Div. Dec. 19, 2017)

• Challenge to an interim criteria issued by the New Jersey Department of Environmental Protection ("DEP") for perfluorononanoic acid ("PFNA").

#### • Background:

- In January 2014, the DEP discovered concentrations of PFNA at 150 ppt in the water supply of Paulsboro, Gloucester County.
- In March 2014, DEP posted on its website a draft Interim Specific Ground Water Quality Criteria ("Criteria") for PFNA of 20 ppt. DEP never published a notice of proposed rulemaking or the text of its interim criteria in the New Jersey Register.
- In May 2014, Solvay Specialty Polymers USA, LLC wrote to DEP requesting that the agency re-issue the criteria in compliance with the state's Administrative Procedures Act ("APA"), but DEP did not heed this request
- In November 2014, this draft Criteria was lowered to 10 ppt and finalized.

### Chemistry Council of New Jersey v. N.J. Dep't of Environmental Protection, 2017 WL 6492521 (N.J. Super. Ct. App. Div. Dec. 19, 2017)

- Following the finalization of this interim criteria, the Chemistry Council of New Jersey (CCNJ), Solvay, and Arkema Inc. filed an appeal, contending that:
  - DEP's action constituted an ultra vires "rule-making short-cut" in violation of the state
     APA
  - The 10 ppt interim standard was arbitrary and capricious and not scientifically supported
- Ultimately, the appellate panel invalidated the standard because the "interim criteria have become de facto a permanent regulatory scheme without the agency complying with the requirements of the APA."
- Pursuant to N.J.A.C. 7:9C-1.7(c)(2)(ii), interim criteria are to be replaced as soon as reasonably possible by a formally adopted rule. DEP violated this by allowing the originally announced March 2014 criteria to take the form of a permanent rulemaking.

#### Other Recent Cases and Enforcement

- Zimmerman et al v 3M et al, 17-cv-01062 (W.D. Mich.) (filed 12-1-17)
  - Subject to existing EPA enforcement
  - Contamination of private drinking water wells in homes by PFAs
  - Michigan issued new rules for PFOS and PFOA effective Tuesday, Jan. 10, 2018. The new legally enforceable limit of 70 parts-per-trillion (ppt) for the two chemicals mirrors the Environmental Protection Agency's health advisory level for PFOS and PFOA.
- Bethpage Water District v. Northrop Grumman et al., 16-2592 (U.S. Court of Appeals for the Second Circuit)
  - Second Circuit affirmed lower court's ruling finding that water district's claims for contamination of drinking water wells by 1,4-dioxane were barred by the statute of limitations.
- Other recent and upcoming areas for litigation and enforcement:
  - Contamination from PFAs in municipal solid waste landfills
  - Litigation concerning 1,4-dioxane in groundwater and drinking water as state and federal regulations begin to require testing/screening

#### **Potential Bases for Challenge**

- Party Standing
- Statutes of Limitations
- Preemption of State Law Claims
- Exhaustion of Administrative Remedies
- Regulatory Interpretation ("Advisory" Limits)
- Statute of Repose
- Typical Tort and Product Liability Defenses

#### What is Next? Emerging Claims Regarding GenX

- GenX, or close analogs, have allegedly been found in surface water in Ohio, West Virginia, and North Carolina.
- Last year, lawsuits were filed in the Eastern District of North Carolina by the Cape Fear Public Utility Authority and Brunswick County.
- These suits allege that Chemours allegedly contaminated water supplies in North Carolina and misrepresented the allegedly safer nature of GenX as compared to PFOAs.

#### **Questions?**



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