Session 10: Update on PFAS Regulatory Developments:

What does it mean for your customer's business?

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Introduction

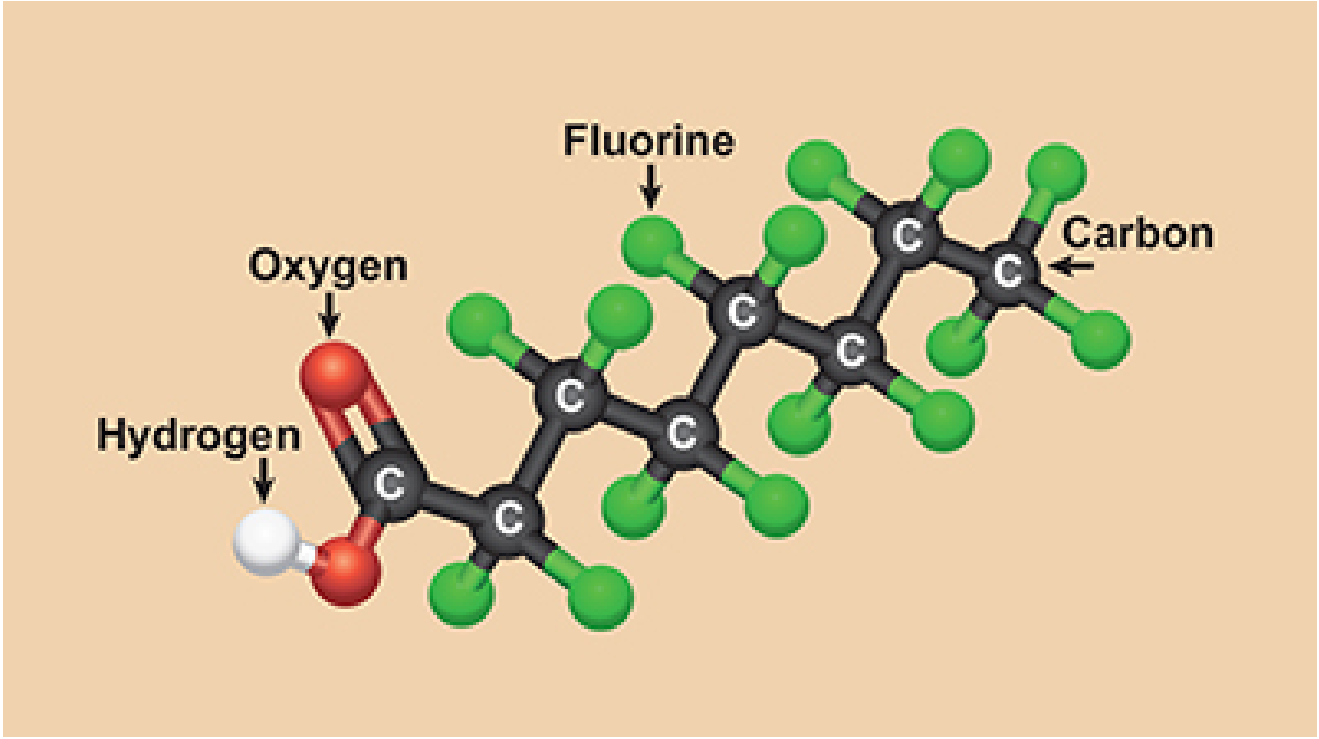
- Welcome to Session 10
  - Reminders
    - Prerecorded prior to the start of the Winter Virtual Conference
    - Live Q&A after the video
    - Type Questions into the Q&A feature
    - Slides with Hyperlinks available
    - E-mail me at dianne.phillips@hklaw.com after the program
  - Who am I & why am I presenting on PFAS Regulatory Updates
    - Environmental due diligence & underwriting becoming increasingly complex
    - Per- and polyfluoroalkyl substances (PFAS) under increasing scrutiny
    - Understanding customer's potential regulatory risks & obligations

Overview

- What are PFAS?
- Where are PFAS Found?
- Why PFAS Matter?
- EPA’s PFAS Strategic Roadmap
- EPA’s National PFAS Testing Strategy
- Regulatory Updates
- PFAS Due Diligence Tips
- PFAS & Beyond – Final Thoughts

What Are PFAS?

- PFAS = Per- and Poly-fluoroalkyl substances:
  - PFAA: Perfluoroalkyl acids
  - PFOA: Perfluorooctanoic acid (perfluorooctanoate)
  - PFOS: Perfluorooctane sulfonic acid (perfluorooctane sulfonate)
- Carbon-Fluorine bond is strongest in chemistry
- Man-made chemicals
- Surfactants



Where are PFAS Found?

- Many industrial uses:
  - Plastics manufacturing
  - Coating for paper and cardboard
  - Wire insulation
  - Electroplating
  - Photography/film manufacturing
  - Main component in firefighting foams (AFFF)
- Used since 1940s in a variety of consumer products:
  - Non-stick coating in cookware
  - Water proofing and stain resistant agent in clothing, carpet, upholstery, textiles
  - Fast food wrappers, pizza boxes, microwave popcorn bags
  - Makeup and dental floss

Why PFAS Matter?

- PFAS are highly mobile and persistent in the environment
- Discharge via air emissions
- Leach through soil to groundwater
- Direct discharge from industrial facilities groundwater/surface water
- Bioaccumulate in produce and livestock
- Due diligence challenges
- Thousands of Different Compounds
- Ubiquitous?
- Evolving legal landscape (federal, state and local)

EPA's Strategic Roadmap: 2021 - 2024

- Released October 2021
- EPA's goals and objectives focused on the themes of:
  - Research, Restrict & Remediate
- EPA's Integrated Approach:
  - Consider the Lifecycle of PFAS
  - Get Upstream of the Problem
  - Hold Polluters Accountable
  - Ensure Science-Based Decision-Making
  - Prioritize Protection of Disadvantaged Communities

Strategic Roadmap Key Actions

- Publish national testing strategy
- Ensure robust review for new PFAS under TSCA
- Review prior decisions under TSCA
- Eliminate inactive chemicals/uses under TSCA
- Enhance TRI reporting
- Finalize new TSCA reporting
- Increase drinking water testing
- Establish drinking water MCL for PFOA & PFOS
- Restrict NPDES discharges
- CERCLA/RCRA updates to include certain PFAS compounds

National PFAS Testing Strategy

- Limited Toxicity Data for most PFAS compounds
- PFOA & PFOS most studied & documented (health assessments published in 2016, currently undergoing review for potential revision)
- Potassium perfluorobutane sulfonate (PFBS) (April 2021)
- October 2021: EPA published its health assessment for GenX Chemicals, which is 100 times lower than PFBS & 10 times lower than PFOA/PFOS due to larger uncertainty factor

National PFAS Testing Strategy

- Released October 2021
- Response to North Carolina Petition under TSCA Section 21 (12/28/21)
- EPA proposes a categorical approach using TSCA Section 4
  - Prioritizing groups of chemicals which will provide data that can be extrapolated to larger groups (anchor or index chemicals within structural groupings)
  - Rely upon traditional scientific methods (dynamic and evolving tiered testing approach)
    - computational modeling
    - Physical-chemical properties
    - in vitro mechanistic or kinetics testing
    - limit vertebrate animal testing
    - Wait for mixture testing

Regulatory Updates

1. CERCLA: PFAS as a “Hazardous Substance”
2. RCRA: PFAS as a hazardous waste constituent
3. Toxics Release Inventory (TRI)
4. Toxic Substances Control Act (TSCA)
5. Drinking Water
6. Stormwater/Wastewater
7. Air Emissions
8. Biosolids
9. State Regulation

Big Picture Compliance Overview

- Consideration of both federal and state requirements
  - Many states are advanced in their PFAS regulatory schemes
- Evaluate operations and environmental media
  - Many different types of businesses & property uses implicate PFAS
- Air, Water (wastewater, stormwater, groundwater), Land (biosolids)
  - Each category of environmental media is implicated by PFAS use
- Evolving analytical methods
  - Limited EPA-validated analytical methods available (although EPA is working on it)
  - Status of EPA Research and Development on PFAS | Safer Chemicals Research | US EPA (Status of various test methods and timeline for validation, including non-potable water)
- Record-keeping & Reporting

CERCLA Refresher

- CERCLA and state analogs are **retroactive** –
  - Potential reopeners under Consent Decrees & five-year reviews for delisted sites
- January 2022: EPA submits proposal for listing PFOA and PFOS as “hazardous substances” to White House Office of Management & Budget for pre-publication review
- Plan to propose a draft rule (regulation) by March 2022
- Final rule expected in summer 2023
- CERCLA requires remedial action when there is a release or substantial threat of release of any “pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare.”
  - EPA considers PFAS “pollutants or contaminants,” and has been using this concept to require PFAS remediation on a site-by-site basis using “applicable, relevant, and appropriate requirements.” CERCLA § 121(d) and NCP § 300.430(f)(1)(ii)(B).

Enforcement Trends

- EPA has identified 245 Superfund and contaminated sites with PFAS contamination (up from 180 sites identified in May 2020)
- EPA also continuing to investigate PFAS releases, including joint inspections with states and issuance of requests for information
- Some states are already beginning to require active and closed Superfund and brownfield sites to sample for PFAS, which increases enforcement and remediation risks.
  - New York and New Jersey require all active remediation sites to sample for certain PFAS.
  - New York requires owners or operators of sites that have already received regulatory closure to sample for PFAS.
  - New Jersey has expressed willingness to reopen closed sites to sample for PFAS.
  - California is requiring a phased investigation of PFAS at sites that are potential users of PFAS.
  - Massachusetts requires investigation of sites with potential PFAS contamination under its Massachusetts Contingency Plan.

RCRA

- October 2021: EPA agrees to grant in part New Mexico petition
- EPA will initiate rulemaking process to propose adding PFOA, PFOS, PFBS, and GenX as RCRA Hazardous Constituents under 40 CFR Part 261 Appendix VIII
- Will make these PFAS compounds subject to RCRA Corrective Action (remediation) for RCRA licensed facilities (hazardous waste treatment, storage, and disposal facilities)
- Proposed regulation will also clarify RCRA Corrective Action Program is authorized to require investigation and cleanup of PFAS wastes

Toxics Release Inventory (TRI) Reporting

- Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), 42 U.S.C. 11023
- Based upon SIC and NAICS Codes, 40 C.F.R. 372.23
- National Defense Authorization Act FY 2020 (PUBLIC LAW 116–92—DEC. 20, 2019)
  - PFAS Act of 2019 (Sections 7301- 7362)
- Section 7321 added 172 PFAS compounds to TRI reporting requirement; compounds added continually
- June 3, 2021: 3 more PFAS added to TRI for July 1, 2022 reporting

TRI Impacts on Due Diligence

- Supplier Notification, 40 C.F.R. 372.45 (Safety Data Sheet)
- Be sure to get latest revision (post 1/1/20)

- Product review (SDS and Chemical Inventory)
  - Safety Data Sheets (SDSs) may not list specific PFAS compounds
  - “proprietary ingredients,” “proprietary fluorosurfactant,” and “fluorinated surfactants” among descriptions
  - “PFOA-free” does not mean PFAS-free

2020 TRI Data

- October 2021: EPA released the 2020 dataset
- Only 39 facilities reported that they manufactured, processed, or otherwise used a TRI-listed PFAS compound (over the TRI 100-pound threshold)
- A majority were chemical manufacturers producing products for paint and coatings, soap and detergents, polish, plastics, fertilizers, and adhesives
- Only 43 of the 172 listed compounds were identified (over the TRI 100-pound threshold)
- January 20, 2022 Complaint to close “reporting loopholes”

Toxic Substances Control Act (TSCA)

- NDAA Section 7351: Amended Section 8 reporting requirements
- EPA Proposed Rule June 2021: Comments Due 9/27/2021
  - EPA proposes to require persons that manufacture (including import) or have manufactured these chemical substances in any year since January 1, 2011, to electronically report information regarding PFAS uses, production volumes, disposal, exposures, and hazards.
  - New regulations, 40 C.F.R. Part 705
  - Seeking manufacturing data from 2011 onward
  - Detailed reporting requirements will generate voluminous (largely) publicly available data
  - Roadmap to entities using PFAS
- Docket: EPA-HQ-OPPT-2020-0549 (110 Comments filed & 10 Supporting Documents)
- EPA rule required to be promulgated by 1/1/2023 (expected winter 2022)

TSCA Proposed Rule – Key Issues

- Very broad inclusion of PFAS compounds
  - List is illustrative only
  - Defined by combination of carbon and fluorine atoms
  - More than 1,000 substances identified by EPA
- Very broad inclusion of entities subject to reporting
  - Manufacturers for any commercial purpose, including test marketing, R&D, etc.
  - Includes byproducts, impurities, chemical transformation during use or aging
  - Includes importers
  - Includes “articles” as well as chemical substances
  - No exemption for small businesses or de minimis quantities
- Very broad search of records and information required
  - “Known or reasonably ascertainable by” – all information in possession or control, plus a reasonable person what might be expected to possess, control or know

More TSCA Updates

- According to the Roadmap, EPA has identified approximately 650 PFAS compounds currently in commerce under TSCA (grandfathered) (out of over 12,000 compounds listed on EPA's PFAS Master List) and 6-8 facilities which produce PFAS feedstock

- EPA announces elimination of Low Volume Exemptions (LVEs) for new PFAS compounds
  - EPA seeking voluntary withdrawal of previously issued LVEs

- Significant New Use Rule (July 2020)
  - prohibits companies from manufacturing, importing, processing, or using certain long-chain PFAS without prior EPA review and approval
  - Includes foreign articles which use/contain identified PFAS compounds (e.g., surface coatings)

Drinking Water

- EPA Health Advisory (May 2016)
- EPA Preliminary Regulatory Determination (March 2020) (PFOA & PFOS)
- EPA Final Regulatory Determination (March 2021) (PFOA & PFOS)
- Fifth Unregulated Contaminant Monitoring Rule (March 2021) (added 29 PFAS compounds to measure in public water systems broadly defined)
  - Revisions published 12/27/21 to include smaller public water suppliers, all systems serving 3,300 or more people (previously only systems serving 10,000 or more people)
- Many states already regulating drinking water and PFAS contamination potentially impacting drinking water aquifers
  - Massachusetts, Michigan, New Jersey, etc.
  - Updated lists can be found on the ITRC website
  - PFAS Water and Soil Values Table Excel file– (updated July 2021)
- Expedited testing on & around current & former DOD facilities (FY22NDAA signed 12/27/21)

Stormwater/Wastewater Discharges

- National Pollutant Discharge Elimination System (NPDES):

- Interim Strategy for Per- and Polyfluoroalkyl Substances in Federally Issued National Pollutant Discharge Elimination System Permits (Nov. 30, 2020)

- Multi-Sector General Permit (MSGP) (March 1, 2021): stormwater management on industrial facilities
  - PFAS Monitoring not included (except New Mexico)

- Preliminary Effluent Guidelines Program Plan | US EPA
  - Announced September 8, 2021
  - Organic Chemicals, Plastics and Synthetic Fibers category to address per- and polyfluoroalkyl substances (PFAS) discharges from facilities manufacturing PFAS.
  - Metal Finishing category to address PFAS discharges from chromium electroplating facilities.

Air Emissions

- No federal regulation yet, but potential Clean Air Act jurisdiction if EPA acts
- Clean Air Act 111(b)(1)(A), 42 U.S.C. 7411, a compound that "contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare"
- Clean Air Act 112, 42 U.S.C. 7412, "Hazardous Air Pollutant" the compound provides a "threat of adverse human health effects" or other "adverse environmental effects." (b)(2)
- EPA Office of Research and Development (ORD): EPA PFAS Air Emission Measurements: Activities and Research | Science Inventory | US EPA (June 2019) (ORD technical support to states in measuring emissions)
- Other Test Method 45 (OTM-45) Measurement of Selected Per- and Polyfluorinated Alkyl Substances from Stationary Sources (Rev 0 1/13/2021)
- PFAS Action Act of 2021 (Section 8: mandates listing of PFAS as Hazardous Air Pollutants)
- National Defense Authorization Act FY 2020 (PUBLIC LAW 116–92—DEC. 20, 2019)
  - Section 330-332: emission reductions from incinerators used for AFFF, data collection

Biosolids

- Wastewater residual (sludge) used for land application (beneficial use)
- Regulated under Clean Water Act, Section 405, 33 U.S.C. 1345
- PowerPoint Presentation (epa.gov) (PFAS Treatment in Biosolids – State of the Science, 9/23/20)
- 40 CFR 503 (PFAS not specified yet)
- Biennial Reviews of Sewage Sludge Standards | Biosolids | US EPA (EPA requirement to review & identify additional toxic pollutants that occur in biosolids and set regulatory standards)
- PFAS were newly-identified in the Biennial Review No. 8 (Reporting Period 2018-2019)
- Further evaluation is an EPA priority
- PFAS in Residuals | Mass.gov (Massachusetts regulatory requirements for testing where permitted for reuse)

State by State Regulations & Guidance

- Every state is different
- Enforceable regulations vs. advisory/guidance
- PFOA/PFOS vs. broader group (PFAS6, 20, Gen-X)
- What's being regulated?
  - Drinking water (public & private wells)
  - Groundwater (source of drinking water?)
  - Soil (Exposure & Protection of GW & DW)
  - Release notification
  - Remediation
- ITRC has the most up-to-date database (but the link can be hard to find)
  - PFAS Water and Soil Values Table Excel file– (updated July 2021)

Evolving Theories of Liability

- Consumer Class Actions based on misrepresentation theories that food packaging is not biodegradable or compostable because PFAS is a “forever chemical”
  - *Digiacinto v. Albertsons Companies, Inc. et al.*, 3:20-CV-03382 (N.D. Cal. May 18, 2020)
  - *Ambrose v. Kroger Co.*, 3:20-cv-04009, (N.D. Cal. June 16, 2020)
  - *Nguyen v. Amazon.com, Inc.*, 4:20-cv-04042 (N.D. Cal. June 17, 2020)
- Damage to dairy operations because PFAS consumed by dairy cattle caused loss of Grade A permit for milk production
  - *Schaap v. 3M Co.*, No. 2:19-cv-00105 (D. N.M. Feb. 7, 2019)

PFAS Due Diligence Tips

- Request information about historic fires, and fire suppression system testing protocol and documentation
- Request SDS and TRI Reports (and TSCA reports once regulation finalized)
- Develop detailed PFAS questionnaire to supplement Phase I User questionnaire tied to regulatory requirements
- Stay informed of evolving state and federal standards
- Consider risk tolerance in advance
  - Avoid triage decision-making
  - Evaluate regional impacts (air deposition & groundwater plumes)
  - Can you live with how PFAS is described in your Phase I report?

PFAS and Beyond – Final Thoughts

- All emerging contaminants present regulatory and litigation risk
- Even non-binding governmental pronouncements can have cascading effects (like the ethylene oxide litigation craze)
- Litigation theories are just as emerging as the contaminants themselves
  - No longer traditional remediation claims (although those still exist)
  - Natural Resource Damages (NRD) claims likely to rise as science improves, including analytical methods & toxicology for compounds beyond PFOA/PFOS
  - Class actions will increase, even for plaintiffs who are never sickened
  - False representation and similar “marketing” claims will increase due to public perception of harm
  - Record-keeping burdens will increase & will provide a road-map to liability

Speaker Bio

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Dianne R. Phillips is an attorney in Holland & Knight's Boston office who concentrates her practice in litigation, regulatory, energy and environmental law. As former assistant general counsel for Suez LNG North America LLC and its wholly owned subsidiary, Distrigas of Massachusetts LLC, Ms. Phillips was involved in all aspects of regulatory compliance for the nation's oldest, continuously operating liquefied natural gas (LNG) import terminal located in Everett, Mass., including safety and security. Her LNG experience includes advising clients with respect to specialized regulatory compliance under 49 C.F.R. Part 193 and NFPA 59A.

Ms. Phillips' environmental practice focuses on brownfields redevelopment and remediation, including former military installations, former manufactured gas plants (MGPs) per- and polyfluoroalkyl substances (PFAS) sites, and vapor intrusion sites. She regularly advises developers, lenders and investors in real estate transactions involving contaminated property, enforcement defense, regulatory compliance, due diligence, and complex project development and permitting matters, including those under the National Environmental Policy Act (NEPA) and the National Pollutant Discharge Elimination System (NPDES), among others.

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