

PFAS CHEMICALS:

With Regulatory and Litigation Tides Rising,
Lessons from Past Mass-Tort Battles

July 18, 2019



Frank Leone
Ann Marie Duffy

PFAS (PFOA & PFOS)

Persistent, bioaccumulative, “suggestive evidence of carcinogenic potential,” other health effects

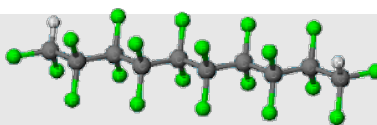
Fire-fighting foam



Scotchgard



Teflon



Teflon, $-(CF_2CF_2)-$





PFOA



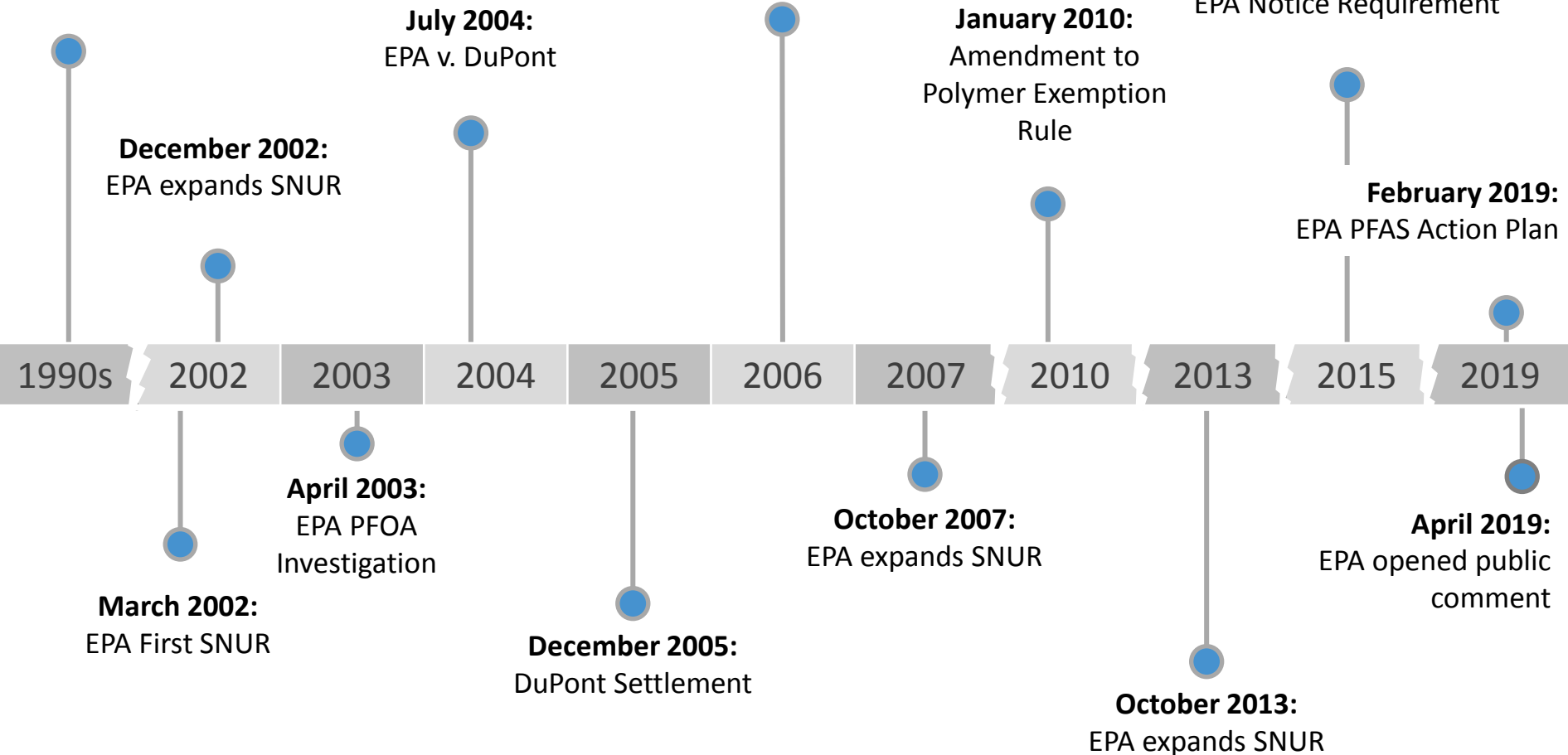
PFOS

FEDERAL & STATE RESPONSE

EPA Phase Out

1990s:

EPA Concerns
3M Ceases Manufacture



EPA Health Assessments

January 2009:

EPA Provisional
Health Advisory

PFOA = 0.4 ppb

PFOS = 0.2ppb

May 2016:

EPA Health Advisory

PFOA/PFOS = 70 ppt

2009

2010

2011

2012

2013

2014

2015

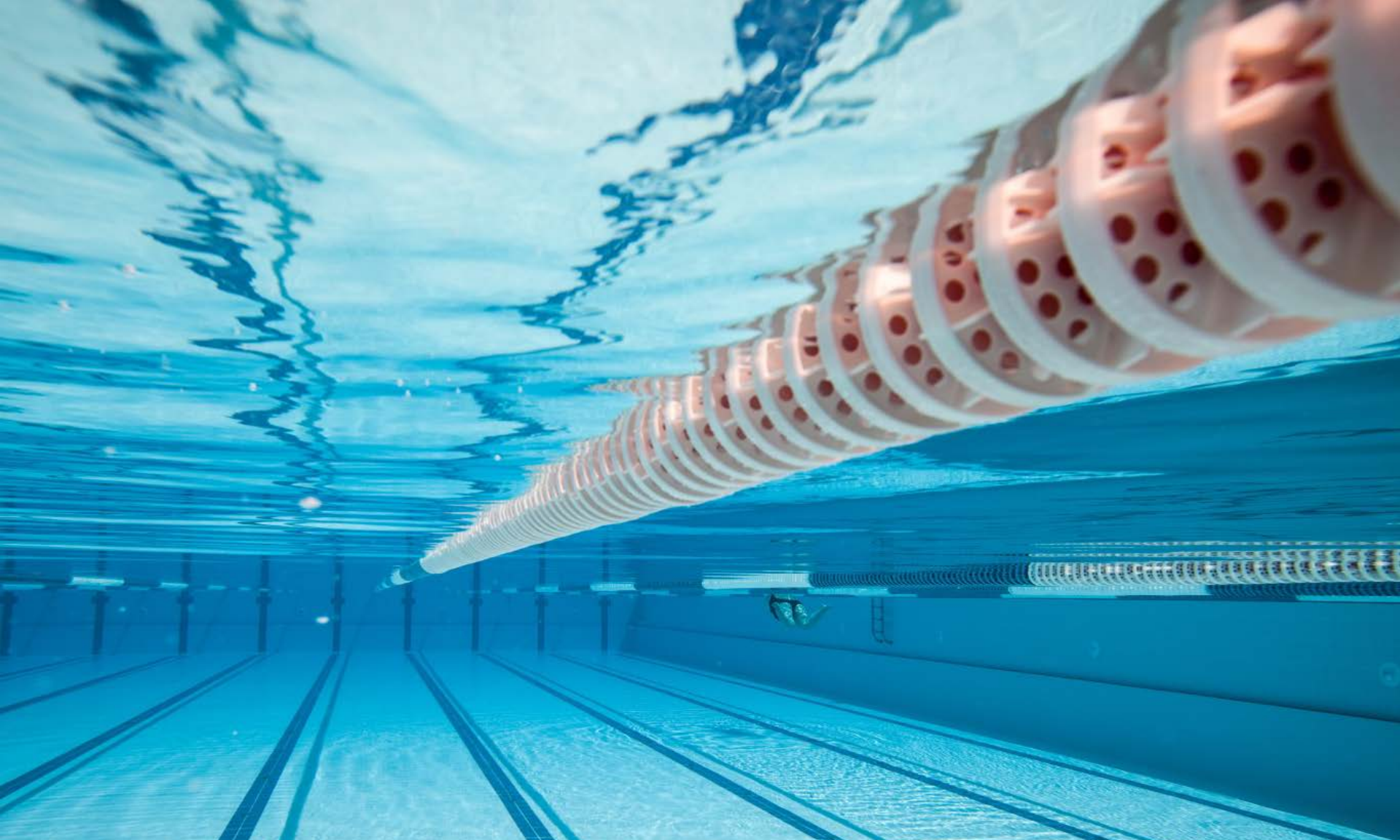
2016

2014:

EPA Draft Health Effects

April 2019:

Carcinogenic potential of PFOA and
PFOS in humans

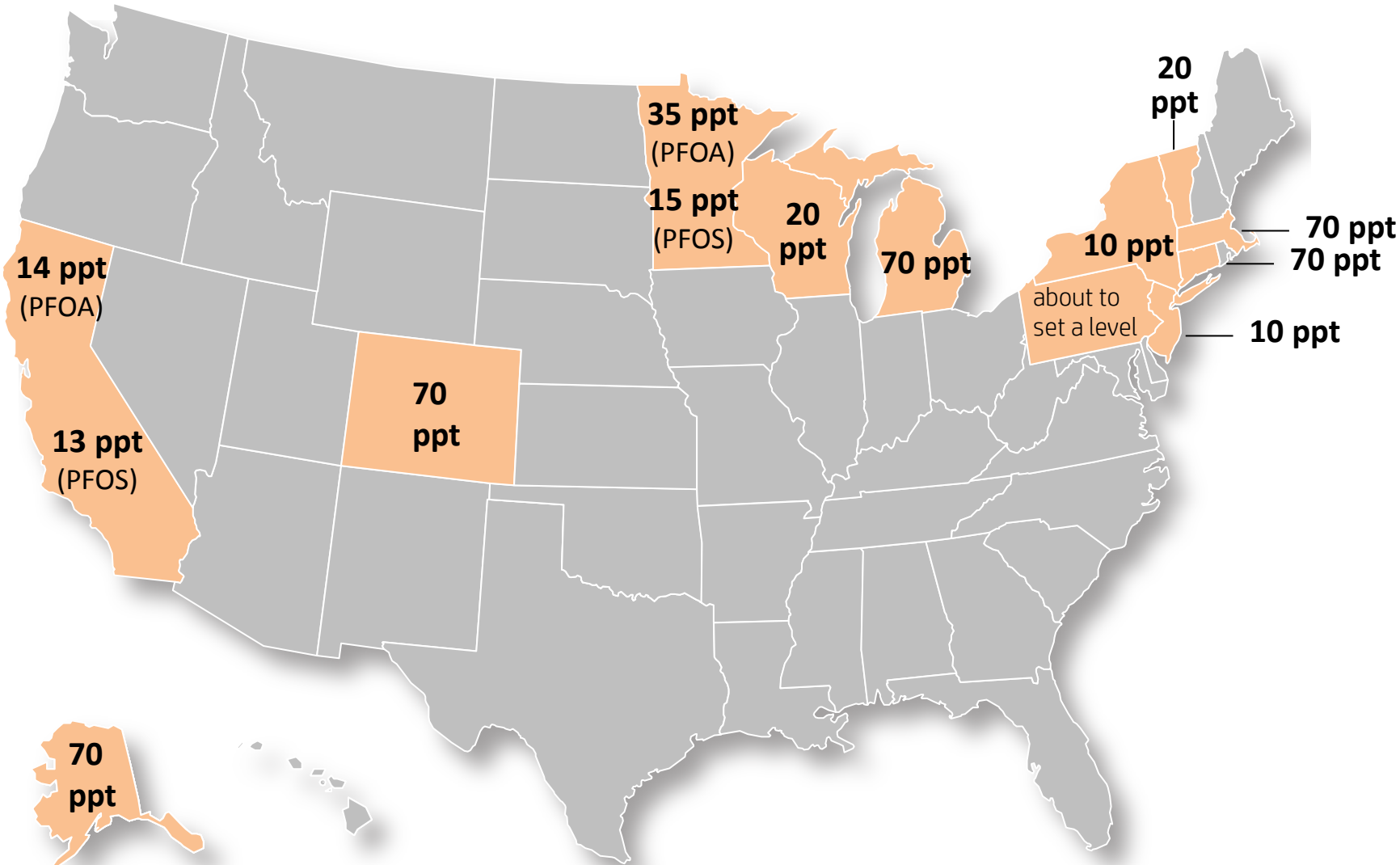


**1 PART-PER TRILLION IS ABOUT 1,000
TIMES SMALLER THAN A DROP OF WATER IN
AN OLYMPIC-SIZE SWIMMING POOL**

Current / Anticipated Federal Regulations

- Not hazardous yet
- No drinking limit yet
- EPA National Leadership Summit
 - Initiating steps to evaluate need for MCL
 - Beginning necessary steps to propose “hazardous substances” designation
 - Developing cleanup recommendations
 - Developing toxicity values for GenX and PFBS

Current / Anticipated State Regulations



PFAS RISKS AND HEALTH HAZARDS

PFAS Risks

- **Environmental** - persistence, solubility, mobility
- **Health** - Bio accumulative, persistent

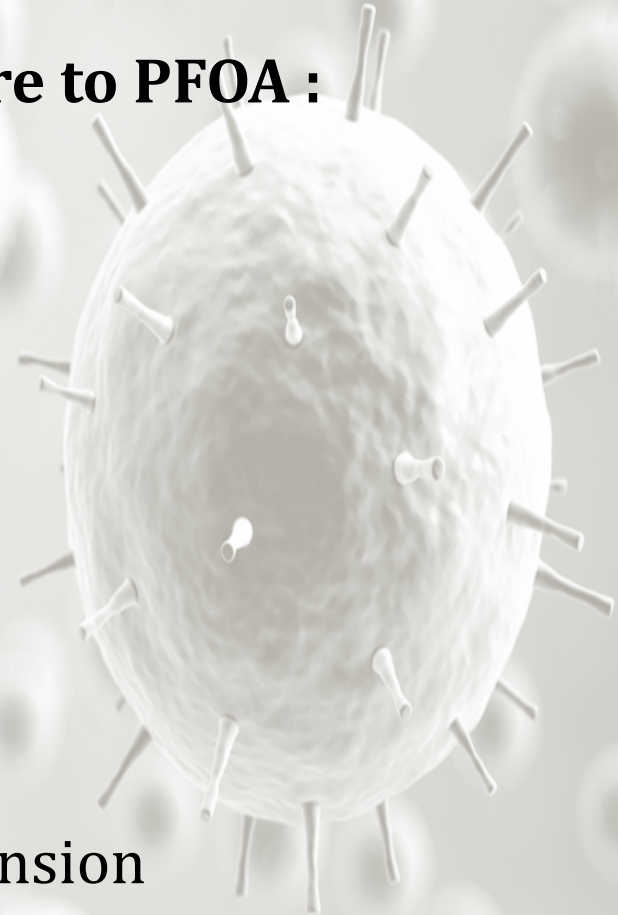


Animal Toxicology Studies

- **Mostly Rats and Mice**
- **Accumulates in liver, kidney, and serum**
- **Primary effects:**
 - **liver toxicity**
 - **developmental toxicity, and**
 - **immune toxicity**
- **Significantly higher exposures than workers**

C- 8 Study

- **Settlement with DuPont**
- **2005-2013**
- **Probable link between exposure to PFOA :**
 - ✓ testicular cancer
 - ✓ kidney cancer
 - ✓ high cholesterol
 - ✓ ulcerative colitis
 - ✓ thyroid disease
 - ✓ pregnancy-induced hypertension



Worker Studies

Some trends/associations found

- ✓ Steenland et al. 2015 (3713 workers and next of kin)
- ✓ Sakr et al. 2007 (454 workers)
- ✓ Costa et al. 2009 (53 male workers)
- ✓ Sakr et al. 2007 (1025 active workers)



Worker Studies

No associations found

- ✓ Olsen and Zobel, 2007 (506 employees)
- ✓ Wang et al. 2012
- ✓ Olsen et al. 2000 (male workers)
- ✓ Gilliland and Mandel, 1996 (115 workers)



DRAFT TOXICOLOGICAL PROFILE

- **No causality established**
- **Identifies the following associations:**
 - ✓ Pregnancy-induced hypertension/pre-eclampsia
 - ✓ Liver damage
 - ✓ High cholesterol
 - ✓ Risk of thyroid disease
 - ✓ Decreased antibody response to vaccines
 - ✓ Asthma
 - ✓ Decreased fertility
 - ✓ Decreases in birth weight
 - ✓ Testicular and kidney cancer (highly exposed)



Exposure



Drinking water



Air emissions



Product exposure

WHAT IS BEING DONE?

PFAS release remediation

- **State Investigations**
 - New Jersey DEP Order
- **Environmental investigations lead to tort actions**
 - Publicity
 - Public concerns
 - Off-site testing
- **Managing environmental remediation**
 - Actions necessary to protect public health
 - Same actions to fight plaintiffs' claims
- **CERCLA/RCRA preemption**



LITIGATION OVERVIEW

PFAS Litigation Overview

- **Plaintiffs:** Individuals, Water Districts/Municipalities
- **Defendants:** PFAS Suppliers, Manufacturers who used PFAS in their processes, WDs
- **Personal injury, property damage, medical monitoring**
- **Claims:** Negligence, nuisance/trespass, defective design/failure to warn



First Wave: PFAS Supplier Litigation



- Parkersburg, WVA Class Action
- PFOA MDL (S.D. Ohio)



- Minnesota Natural Resources Damages
Claim: \$850M settlement

Other National Litigation

– *Fire-Fighting Foam* MDL (D.S.C. 2018)

Government and individual claims alleging damage to and exposure via groundwater contaminated with AFFF (Aqueous film forming foam)

– *Hardwick Class Action* (S.D. Ohio)

Class action on behalf of the 99% of the United States population that has detectable levels of PFAS in their blood seeking creation of “PFAS Science Panel”

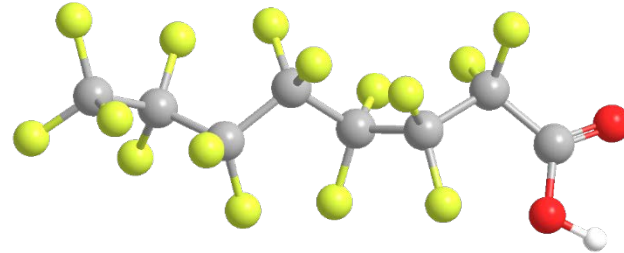


Second Wave: PFAS Users

- **Hoosick Falls NY** – St. Gobain (coating operations)
- **Petersburgh NY** – Taconic (fiberglass coating operations)
- **Rockford MI** – Wolverine (tannery)
- **Paper mills:** Georgia Pacific (Parchment MI paper mill)
- **Military air bases**

LITIGATION STRATEGIES

Product Identification Defenses



- PFAS is ubiquitous
- PFAS fate & transport difficult to track
- Who's PFAS is it?

Tort Defense

Negligence

- No duty
- Exercise of due care

Design Defect

Failure to Warn

Nuisance/Trespass



No Injury

- **PFAS bioaccumulates in human blood**
- **But presence in blood isn't necessarily an "injury"**
- ***Baker v. St. Gobain*, 232 F. Supp.3d 244 (N.D.N.Y. 2017)**

Causation Challenges

- *Daubert/Frye* challenges to Plaintiffs' toxicology & epidemiology experts
- Animal and Human studies do not prove causation
- Regulatory standards do not prove causation

Are Property Damages Real?

- ✓ **Remediation underway in many instances**
 - Clean drinking water
- ✓ **No actual property damage**
- ✓ **No standing to assert groundwater “damage”**
- ✓ **Property values**

Suing Your Supplier?

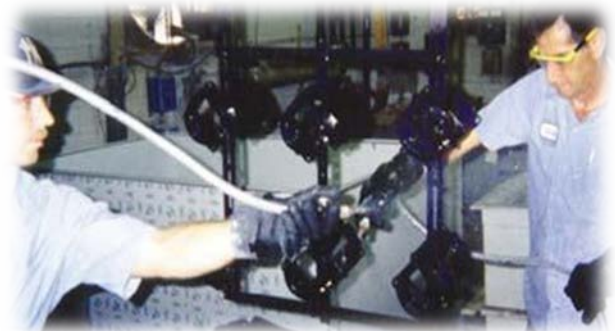
- **Should you sue them?**
- **Questions to ask:**
 - Is a fight with a new co-defendant worth it?
 - Business relationship to consider?
 - What legal basis for a claim against supplier?
 - What information did supplier provide re wastes?
 - When do you add them, if you need to?

FUTURE LITIGATION

Industries That Could Be Targets



Paper and cardboard packaging products



Electroplating



Industrial manufacturing



Carpet



Textiles



Leather products

Third Wave: Replacement PFAS Chemicals

- Shorter-chain perfluoroalkyls are used as PFOA replacements
- Are they safer, or not?
 - Lower bioaccumulation potential
 - Still persistent and mobile
 - Toxicity?

Are PFAS the Next Asbestos?

- **Asbestos is still asbestos**
- **PFAS Isn't**
 - ✓ No signature disease
 - ✓ Unproven health risks
 - ✓ Minimal product risk
- **But liabilities > \$1 billion so far and more to come**