PFAS Litigation and Regulatory Developments Conference

GREENWASHING CLAIMS AND TOTAL FLUORINE ANALYSES

Melanie C. Buser, Ph.D, DABT, MPH
Senior Associate
RHP Risk Management Inc
Atlanta, GA

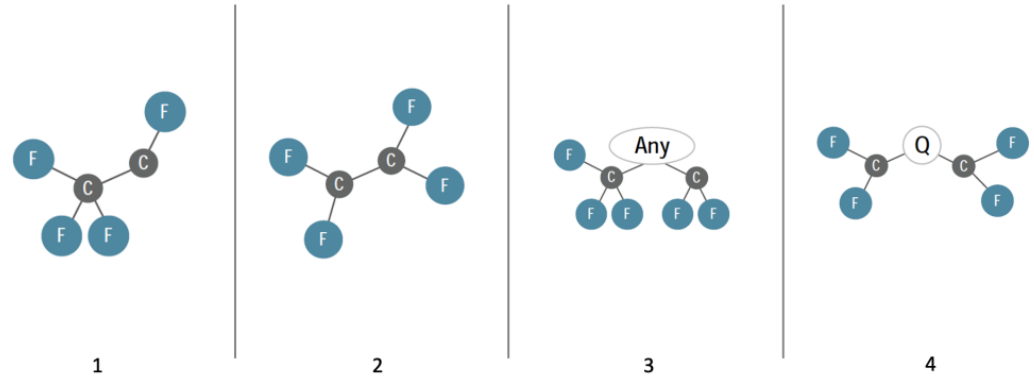
Jase L. Hixson, Ph.D
Senior Consultant
Antea Group
Bloomington, IN

CMBG3 LAW · MGM THE LAW FIRM · antea group · NAPOLI SHKOLNIK PLLC ATTORNEYS AT LAW

JS|HELD · RHP RISK MANAGEMENT Consulting Health Scientists · SMITH ANDERSON · TRC Member of WSP

Why PFAS greenwashing is accelerating

- PFAS definitions vary (state, federal program, EU/international)
- Compliance screens & thresholds get reused in marketing and litigation
- Result: ‘PFAS-free’ becomes a definitional and evidentiary fight



EPA 2022; ITRC

Three claim types – three different substantiation burdens

PFAS-Free

- Marketing explicitly states the product is free of PFAS
- Absolute, unqulified claim

No Intentionally Added PFAS

- Company claims no PFAS intentionally added in manufacturing
- Supply chain and formulation-focused

Implied Clean

- Implied messages like “Contains no chemicals of concern”
- “Natural” or “Eco-friendly” marketing claims

The PFAS definition map

Program-specific PFAS scope: product bans vs reporting vs drinking water vs EU restrictions

Chain length influences transport, capture efficiency, and destruction pathways

Implication: remediation and ‘PFAS-free’ claims must be scoped and contextual

How regulation becomes ‘proof’: compliance screens and thresholds

- Regulators use scalable tools: targeted lists, thresholds, screening approaches
- Those tools can be fit-for-purpose for enforcement triage and compliance checks
- Litigation risk: screening evidence gets treated as definitive proof of identity or intent

Personal care focus: ‘intentionally added’ + fast-moving marketing

- States are expanding cosmetics restrictions; definitions and dates vary
- “No intentionally added PFAS” requires governance (suppliers, specs, audits, change control)
- End-product testing supports governance but rarely proves intent alone

Global enforcement & accountability signals

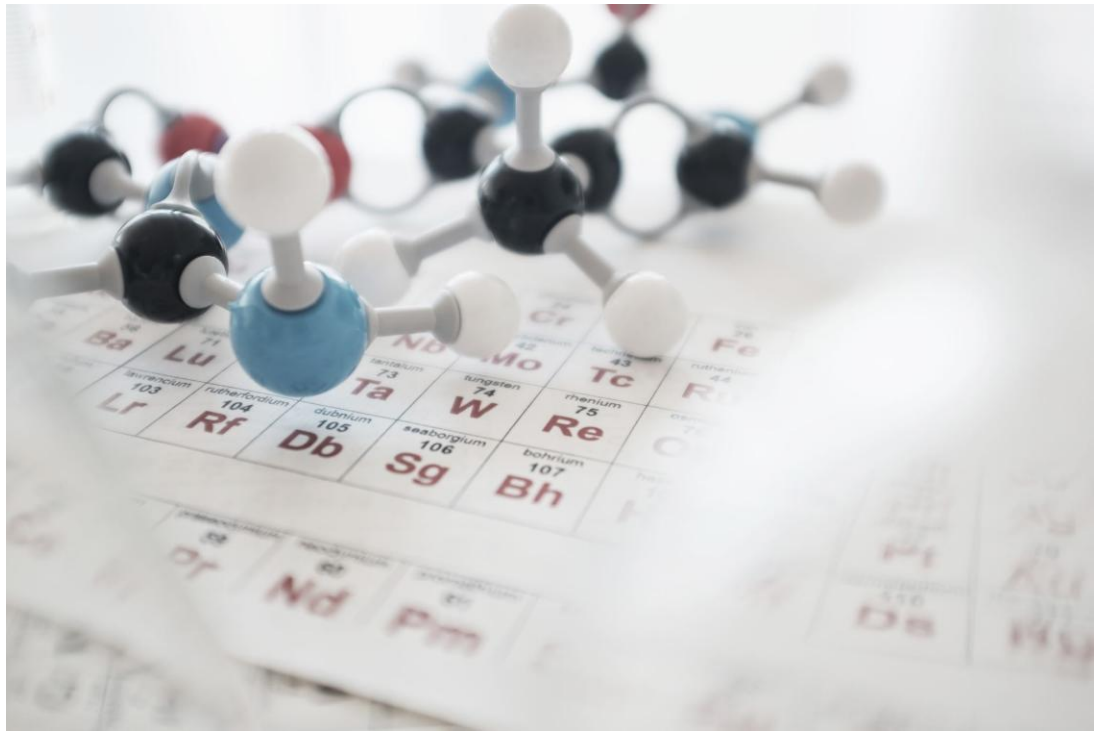
- Disparities in PFAS regulation can shift burdens to developing regions
- Risk: relocation of PFAS-based industry and ‘pollution havens’
- Momentum for international coordination (risk assessment collaboration, shared methods, shared definitions)

Claims and Coverage

- International bodies are convening to align on PFAS risk assessment science
- Methodological gaps + sheer number of PFAS complicate consistent decisions
- Regulatory triggers shape notice, defense costs, and allocation arguments
- Definition volatility propagates into liability and insurance coverage disputes

TOF in 60 seconds: where it fits (and where it doesn’t)

- TOF = organofluorine mass in a defined fraction (screening)
- Alone, it does not confirm PFAS identity, intent, or regulated analytes
- Best posture: screen → investigate/confirm when the claim requires identity

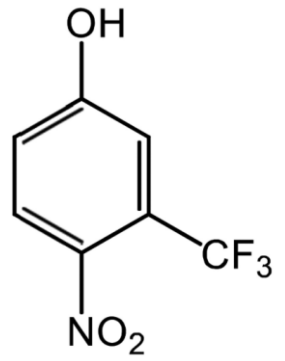


Strategic testing and strategic answers

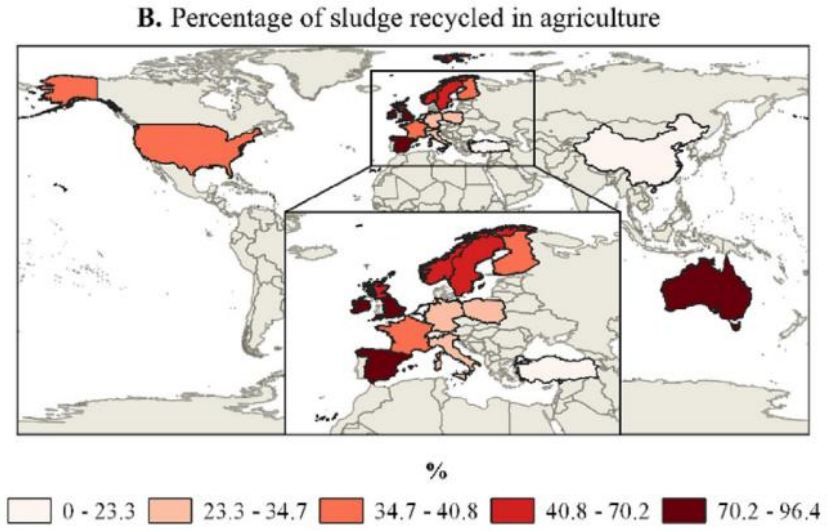
- Do test results need to be interpreted?
  - pH, PFAS (EPA 533, 537, and 537.1), metals
  - cBOD and TOF

Strategically not testing

- A TFM (3-trifluoromethyl-4-nitrophenol) example
  - Used as a piscicide since the 1950's
  - "TFM presents a minimal risk to human health and the safety of the environment." – Hubert, 2003
- Biosolids PFAS contamination



TFM



Harley-Nyang, et al., 2023


What You Need to Know About TFM (3-Trifluoromethyl-4-Nitrophenol)

What are sea lampreys?
Sea lampreys (shown in the photo above) are parasitic fish that are native to the Atlantic Ocean. They kill fish by attaching to them and feeding on their blood and other bodily fluids.

Over time, sea lampreys have moved from the Atlantic Ocean into the Great Lakes. Every year, they kill more than 100 million pounds of Great Lakes fish, which is roughly the same weight as the Titanic.[1] This has led to efforts to control the sea lamprey population and keep them from entering streams that feed the Great Lakes. These efforts aim to keep balance in the aquatic ecosystem (or among the wildlife that live in a body of water).[2]

What are lampricides and TFM?
Lampricides are chemical treatments (pesticides) that are used to control sea lamprey populations. One common lampricide is called TFM (3-trifluoromethyl-4-nitrophenol).

TFM is a toxic (poisonous) chemical. It is used to kill the young, developing sea lamprey larvae before they reach the adult stage. TFM has been used in the U.S. since the 1960s. It has been widely used in the Great Lakes region by the U.S. Fish and Wildlife Service.[3]

How does TFM affect the environment?
There are limited studies on TFM in the environment. This means we are still learning TFM's positive and negative impacts. All TFM treatments are closely monitored to protect both environmental health and human health.

TFM is a chemical used in rivers and streams. According to the U.S. Environmental Protection Agency (EPA), TFM breaks down naturally over time and does not build up in the environment. TFM breaks down quicker in warmer, oxygen-rich water. However, TFM can remain toxic for longer (sometimes up to 80 days) in certain conditions such as in cold, slow-moving water.[3]

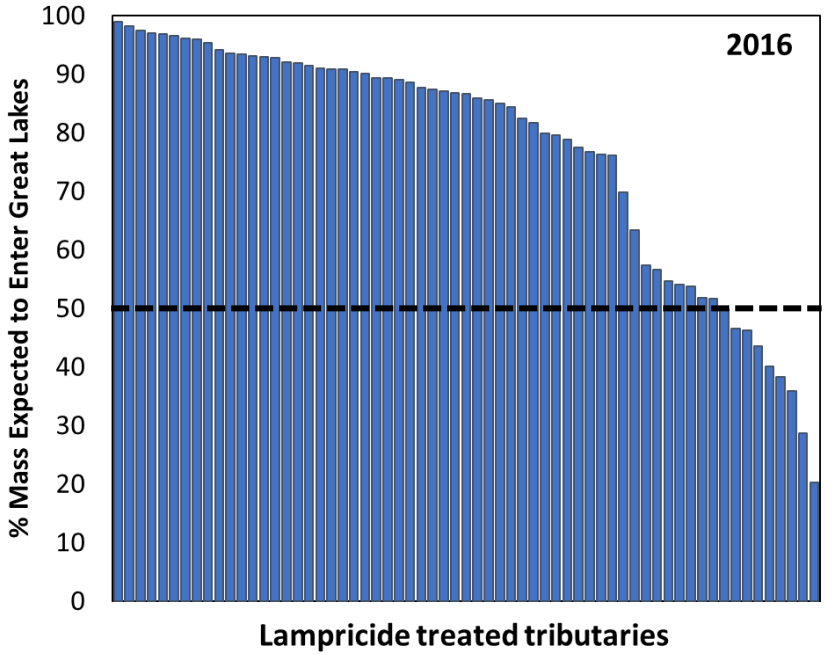
TFM treatments are carefully planned to kill sea lamprey larvae and limit exposure to other wildlife. When used as directed, TFM is not expected to have long-term environmental harm. TFM also does not build up in fish or animals. This means it is unlikely to move up the food chain. In other words, wildlife that are exposed to TFM and those that eat the wildlife should not have high levels of TFM. Most aquatic ecosystems will return to how they were before the TFM treatment within weeks or months. Treated areas usually do not need another application for three to five years.[3]

Although the risk is low, TFM could move through soil and reach groundwater. This is called environmental leaching. The likelihood that this will take place depends on the type of soil, water movement, and other environmental factors.[4] If TFM moves through soil, it does not easily bind to soil particles. This reduces the chance (or likelihood) that the soil will stay contaminated for a long time.

How can TFM affect your health?
Professionals should use TFM as directed. After TFM treatment, community members should follow any safety recommendations. This includes staying out of the treatment area and not using the water, wildlife, or soil in it for a period of time (usually up to 72 hours). These steps help lower the risk of TFM. According to the EPA, TFM poses little to no health risk to people when these steps take place.[3] If someone is exposed to lampricide treatments, symptoms may include skin irritation, eye irritation, or a headache.[3]

Who is most likely to come in contact with TFM?
Community members should not enter the treatment areas during or shortly after the

Great Lakes Inter-Tribal Epidemiology Center, 2025



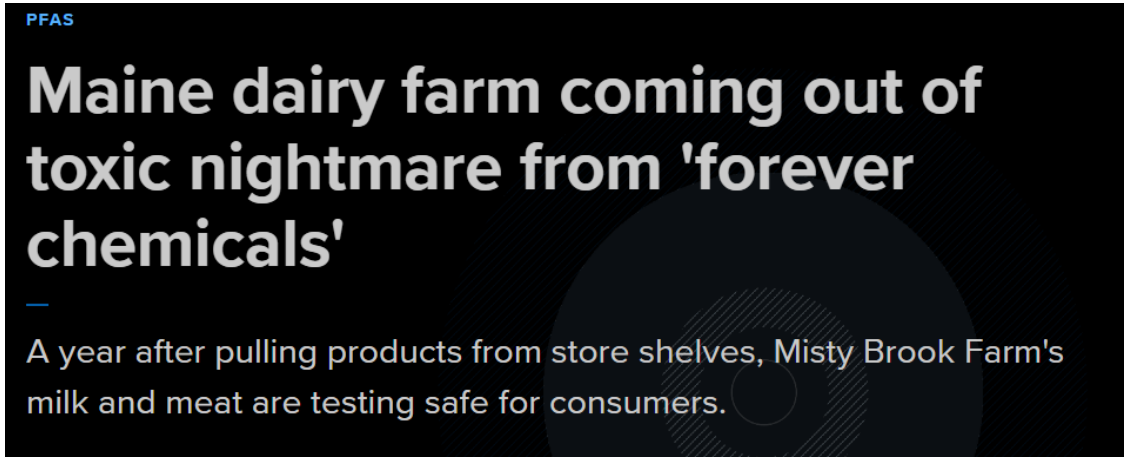
McConville et al., 2017

Facility-level decision making

- When/how to chose the “right” tests
- Considerations when testing
  - Sampling location
  - Sampling media
  - Screening vs. testing

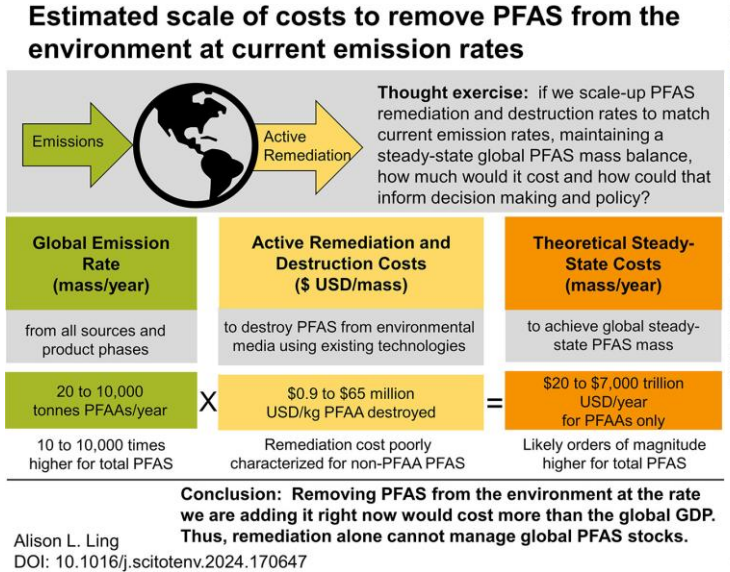
Recommending and interpreting facility-level decisions

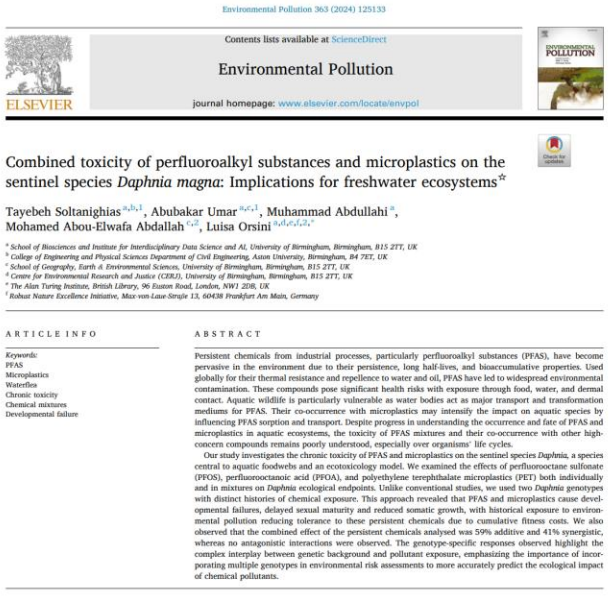
- Stage 1: extreme caution
  - Sampling for TOF
  - Upstream and downstream sampling
- Stage 2: refined sampling
  - Wastewater treatment discharge
  - Process-specific sampling
  - Sampling for TOF or specific PFAS
- Stage 3: precise sampling
  - Procedure-specific sampling
  - Sampling product/material
- Stage 4: realized impacts
  - Whole Effluent Toxicity (WET) testing
  - Process to monitor aggregate toxic effects



Impact to expert testimony and insurance coverage

- The real world is messy
- Interactions can alter toxicity (synergistic, antagonistic, or additive)
  - Recent research shows additive and synergistic impacts of microplastics and PFAS
- Experts need to know:
  - Precisely what tests show
  - Limitations of testing procedures
    - Test method
    - Sampling media/location
  - How to interpret results





Summary

- Your clients are cautious
  - PFAS could end production, indicate lability, and invoke complicated claims
- TOF testing isn't inherently good or bad, but does require:
  - Interpretation
  - Full transparency on limitations
- Practical takeaways:
  - Claims
  - Litigation