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# Perfluoroalkyls and Polyfluoroalkyls (PFAS)

## THE CASE FOR RE/INSURANCE EXCLUSIONS

### June 2025

Per-and Poly-Fluoroalkyl substances ("PFAS") claims are now a mass tort with significant implications for the re/insurance industry. PFAS present distinct challenges due to their widespread use, persistent environmental presence, and emerging health risks. New studies continue to document the greater prevalence of these "forever chemicals" in water, food, and consumer products than previously understood. According to Verisk's analysis "modeling suggests ground up losses from PFAS litigation could range between $120B - $165B, depending on how certain trends evolve."[1] As it becomes clear that PFAS will likely be the "next asbestos," re/insurers should consider adapting their underwriting approach to include the use of comprehensive exclusions.

### Background

PFAS is the commonly used abbreviation for organic compounds which replace most or all carbon/hydrogen links with carbon/fluoride links. PFAS can be traced back to 1938. Two of the earliest and most popular uses of PFAS were DuPont's Teflon and 3M's Scotchgard. Today, PFAS are a class of over 15,000 manmade compounds. For decades, PFAS have been used in a wide range of products, such as paper products, wire insulation, surface coatings, cleaning products, personal care products (like cosmetics, shampoos, and dental floss), among numerous others.

They are called "forever chemicals" because of their ability to repel oil and water, their stability and resistance to heat and fire, and their resistance to any methods designed to break apart the atoms within the chemicals. Unfortunately, the same physical characteristics that make PFAS useful in commercial applications also make them highly persistent and mobile in the environment and the human body. Given the ubiquity of these chemicals, the vast majority (97%) of Americans have PFAS chemicals in their blood.[2]

The first PFAS case was a 2004 class action lawsuit captioned *Leach et al. v. E.I. du Pont de Nemours & Co.*, No. 01-C-698 (Wood County W.Va. Cir. Ct). West Virginia and Ohio residents alleged that Dupont's PFAS manufacturing at its chemical plant in Parkersburg, WV, caused widespread water contamination and contributed to high rates of cancer and other health problems for the residents. An independent scientific panel (known now as the "C8 Panel") was tasked with observing and monitoring the health of residents as related to potential links between PFAS exposure and medical ailments. They conducted medical monitoring from 2005-2013 and ultimately found probable links between exposure to PFAS and kidney and testicular cancer, ulcerative colitis, thyroid disease, pregnancy-induced hypertension, and high cholesterol.

Following the panel's findings, litigation began. The first three cases went to verdict, and each found for the plaintiffs:

(1) $1.6 million compensatory reward for a kidney cancer plaintiff,

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1 Bragg, E., Despotaki, V, Hang, E. PFAS Litigation Could Generate Billions in Ground-Up Losses. Here's How. Verisk April 5, 2024. Retrieved at https://core.verisk.com/Insights/Emerging-Issues/Articles/2024/April/Week-1/PFAS-Litigation-Could-Generate-Billions-in-Ground-Up-Losses

2 Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). National Institute of Environmental Health Sciences (2023). Retrieved at https://www.niehs.nih.gov/health/topics/agents/pfc/

(2) $5.1 million compensatory and $500,000 punitive award for a testicular cancer plaintiff; and

(3) $2.1 million compensatory and $10.5 million punitive award for a testicular cancer plaintiff.

Following the first three trials, DuPont agreed to settle 3,500 personal injury cases in the class for $670 million.

About 100 cases remained in the class against DuPont post-settlement. The first trial, involving a woman with kidney cancer, resulted in a mistrial and was scheduled to be retried. The second resulted in a $50 million verdict for a man who developed testicular cancer. Thereafter, DuPont agreed to resolve the remaining cases for $83 million. DuPont also agreed to establish an escrow account funded by $1 billion with a $4 billion aggregate cap for potential future PFAS liabilities.

Today, the largest pending litigation related to PFAS is a multi-district litigation ("MDL") related to a single product, aqueous film-forming foam ("AFFF"), a fire suppressant, and is venued in a South Carolina Federal District Court. The MDL consists of over 15,000 pending cases that are being litigated on a consolidated docket. New cases continue to be filed and incorporated into the MDL. The first bellwether trial was the *City of Stuart v. 3M Co. et al.* (2:18-cv-03487). The City of Stuart was informed by the Florida EPA that its water contained PFAS chemicals above the accepted maximum safe levels for potable water. Testing of individual supply wells indicated that a potential source of the PFAS contamination may have been the City of Stuart Fire Rescue Station. The City of Stuart eventually concluded that the PFAS contamination in its water supply was caused by the use of AFFF during training exercises at the fire station. In October 2018, the City of Stuart filed a lawsuit against a group of companies, including 3M, DuPont, Tyco, BASF, and Chemguard for the contamination of its water supply.

In 2021, Tyco was the first company to settle. It signaled the next significant step in the evolution of PFAS litigation. The $750M settlement was the first settlement that had taken place for a PFAS personal injury lawsuit with a company that used PFAS as a *component* of its consumer product. The settlement indicated that companies are sufficiently concerned about PFAS product liability lawsuits that they are willing to resolve the cases without going to trial. Ultimately, the top defendants settled with approximately 300 water providers. DuPont settled for $1.185B, 3M settled for $12.5B, and BASF settled for $316.5M.

As a result, litigation has now expanded to include all sorts of consumer product retailers—including cosmetics and personal care product companies like L'Oréal, general product retailers like Target, and fast-food restaurants like Chick-Fil-A. Plaintiff attorneys have also expanded liability theories, as they seek to broaden the range of PFAS defendants beyond just traditional manufacturers and distributors. We have seen strict product liability theories brought against consumer product retailers, alleging that they failed to disclose/warn of the presence of PFAS within the products they sell. We have even seen this theory utilized in a lawsuit against a public water agency. In the matter of *Hoffnagle et al. v. Connecticut Water Company*, No. 3:2023-cv-01489 (Ct. Dist. 2023), plaintiffs allege that the municipal water itself, as a product, was defective as it contained elevated levels of PFAS. Causes of action include alleged strict product liability, failure to warn, and negligent design and manufacture.

Phase two trials within the MDL will feature municipal water cases against non-settling defendants and bodily injury cases. The phase two bodily injury plaintiffs allege they suffered ulcerative colitis, thyroid disease, kidney cancer, and testicular cancer as a result of AFFF PFAS exposure.[3] It is anticipated these bellwethers will take place in October of 2025.[4]

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3 The Lawsuit Information Center. Miller & Zois, LLC. Retrieved at https://www.lawsuit-information-center.com/afff-firefighting-foam-lawsuit.html

4 Id.

We note that the AFFF MDL is limited to a *single* PFAS-related product yet has already resulted in billions of dollars of settlement money. We anticipate that there will be many more MDL litigations dealing with an endless variety of PFAS products. This is why some experts believe that PFAS implications for insurers may ultimately rival claims from asbestos.[5]

## PFAS Regulations

Over the last several years, the United States Environmental Protection Agency ("EPA") has regulated PFAS more strictly in ground and drinking water. On April 10, 2024, the EPA finalized the first National Primary Drinking Water Regulation for PFAS.[6] Under the regulation, the limit for PFAS compounds found in public drinking water is four parts per trillion (the equivalent of one drop of water in five Olympic-sized swimming pools). This is lower than any current state limit. The final rule also requires that public water systems implement solutions to reduce certain PFAS to the required limit by 2029. This regulation was hailed as the "first-ever national, legally enforceable drinking water standard to protect communities from PFAS." The EPA noted that "Exposure to PFAS has been linked to deadly cancers, impacts to the liver and heart, and immune and developmental damage to infants and children." The EPA believes that this rule will reduce PFAS exposure for approximately 100 million people, prevent thousands of deaths, and reduce tens of thousands of serious illnesses. Dr. Tracey Woodruff, Professor & Director, Program on Reproductive Health & the Environment (PRHE)/Environmental Research and Translation for Health at the University of California, San Francisco stated, "The science is clear that PFAS chemicals are linked to a wide range of health harms including cancer, damage to cardiovascular and immune systems, poor pregnancy outcomes, and effects on the developing child."[7]

## What about Causation?

The fate of the first casualty cases that went to trial hinged entirely on causation. That mere question of fact allowed each case to get past summary judgment and to trial. At trial, defendants did not dispute whether PFAS are harmful or whether a water supply was contaminated. The central question for expert opinion testimony was whether the products made by defendants could be specifically linked to the PFAS contamination and plaintiffs' injuries. The defense experts argued that there was no way to definitively prove that contamination came from defendants' products. Plaintiffs' experts took the opposite position. To date, plaintiffs have never lost at trial. Since those first cases in West Virginia, defendants (unwilling to risk nuclear verdicts) have settled every case before trial. Plaintiff attorneys have expanded their targets well beyond the traditional manufacturers and distributors of PFAS to downstream companies that utilize PFAS as components of their products and product retailers. The overall trends of PFAS litigation filings and damage estimates are rapidly increasing. Further, the science linking PFAS to specific injuries continues to improve dramatically, making causation even more difficult for defendants to rebut.

There has been a surge in research coinciding with the realization that PFAS is now present throughout the world in water, soil, animals, and humans and with the realization that PFAS are likely having a profound impact on the normal functioning of the endocrine system. There have been multiple independent studies directly linking PFAS to adverse health effects and the science continues to develop in a way that concludes that PFAS is the cause of multiple diseases and injuries. To date, direct links have been found between exposure to PFAS and kidney and testicular cancer, ulcerative colitis, thyroid disease, pregnancy-induced

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5 Per-and polyfluoroalkyl substances (PFAS) or "Forever Chemicals." APCIA Environmental Insurance Topic Brief. January 2024. American Property Casualty Insurance Association.

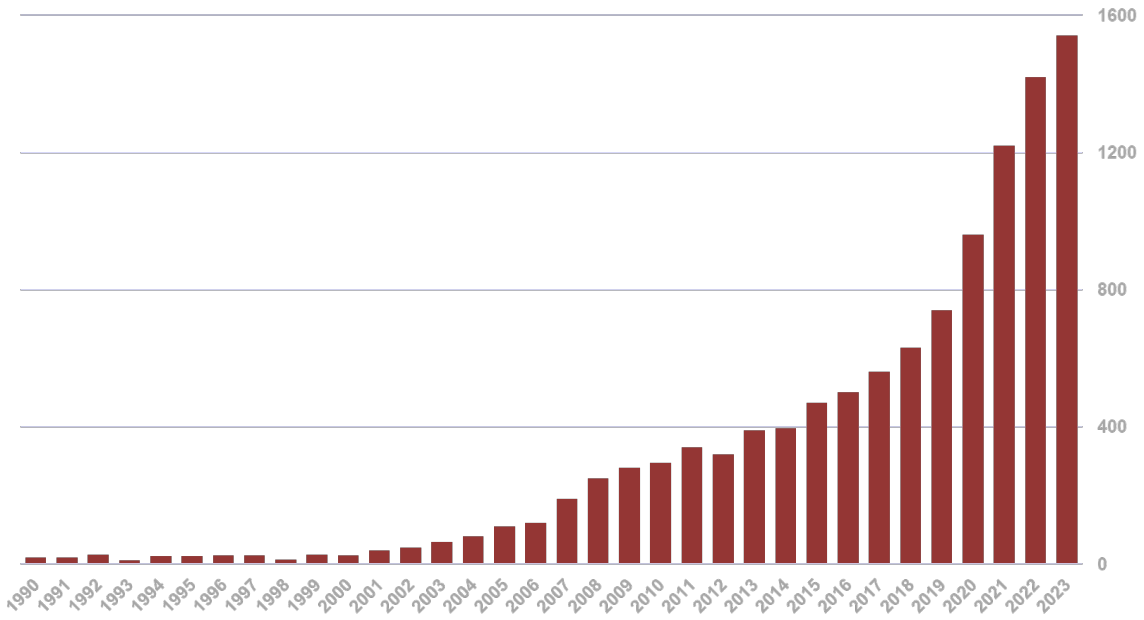
6 United States Environmental Protection Agency (April 10, 2024). Per- and Polyfluoroalkyl Substances Final PFAS National Primary Drinking Water Regulation. Retrieved at https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas

7 United States Environmental Protection Agency (April 19, 2024). Biden-Harris Administration Finalizes Critical Rule to Clean up PFAS Contamination to Protect Public Health. Retrieved at https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-critical-rule-clean-pfas-contamination-protect

hypertension, and high cholesterol[8] A March 2024 paper published by researchers from the Cancer Center at Illinois ("CCIL") concluded that there is a link between PFAS exposure and the growth of testicular germ cell tumors.[9] This study is consistent with a July 2023 study by the Division of Cancer Epidemiology & Genetics at the National Cancer Institute which linked PFAS exposure to increased risk of testicular cancer.[10] Further, the International Agency for Research on Cancer (IARC) which is part of the World Health Organization (WHO), has classified PFOA as "carcinogenic to humans."[11]

The ongoing commercial use of these individual PFAS, however, continues to attract the attention of the scientific community. This strongly suggests that scientific support linking PFAS to specific injuries will continue its upward trend. The chart below demonstrates the rapid increase in scientific articles investigating PFAS:

**Scientific Articles Investigating PFAS**




Source: PubMed, National Library of Medicine

We can summarize the peer-reviewed literature on PFAS and human health with the help of the General Causation (GC) risk score, an algorithm developed by Praedicat, Inc. that measures scientific support for hypotheses of the causes of bodily injury.

GC risk scores range from -1.0 to +1.0, where -1.0 indicates the scientific community overwhelmingly rejects a given hypothesis and +1.0 indicates it overwhelmingly accepts a given hypothesis. The score increases with the number of studies, strength of measured associations, and the quality and diversity of evidence across study designs. As an example, the hypothesis that exposure to asbestos causes mesothelioma has a GC risk score of 1.0.

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8 Frysh, P. PFAS: What to Know. WebMD (June 16, 2022). Retrieved at www.webmd.com/a-to-z-guides/what-is-pfas

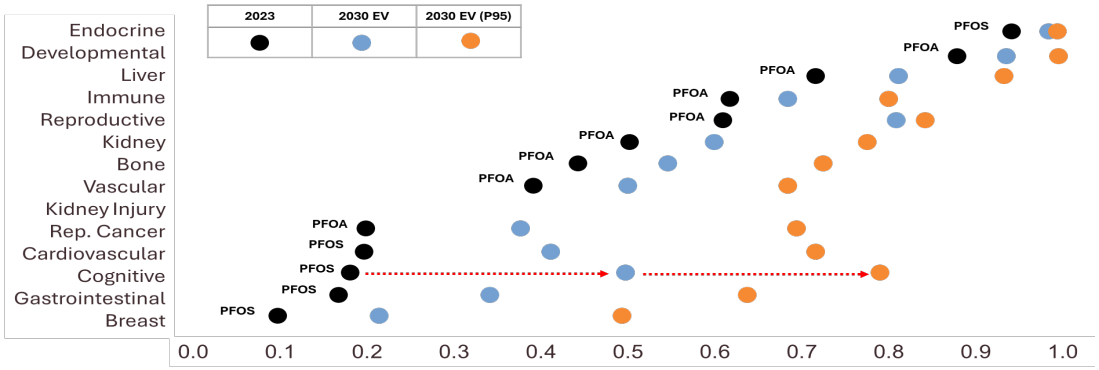
9 New Study Shows 'Forever Chemicals' Linked to Testicular Cancer Tumor Growth. Cancer Center at Illinois. (April 24, 2024). Retrieved at https://cancer.illinois.edu/new-study-shows-forever-chemicals-linked-to-testicular-cancer-tumor-growth/

10 Tookmanian, E. Serum PFAS Associated with Testicular Cancer Risk in U.S. Air Force Servicemen. National Cancer Institute (August 23, 2023). Retrieved at https://dceg.cancer.gov/news-events/news/2023/pfas-testicular-cancer

11 IARC Monographs on the Identification of Carcinogenic Hazards to Humans. International Agency for Research on Cancer. December 1, 2023. Retrieved at https://monographs.iarc.who.int/news-events/volume-135-perfluorooctanoic-acid-and-perfluorooctanesulfonic-acid/

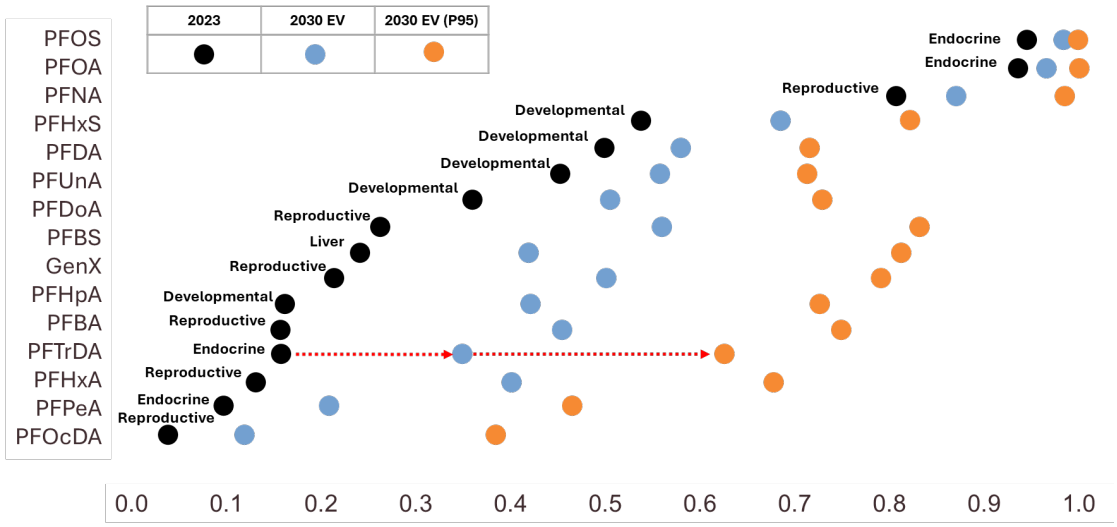
The charts below is derived from a statistical model of the likelihood that new studies will appear in scientific literature that support a given hypothesis. It shows the current (2023) GC risk score, the expected value in 2030 and the 95th percentile value in 2030. As an example, the hypothesis that PFOA/PFAS exposure causes endocrine system injury is already above +0.9.[12]

**General Causation (GC) Risk Score By Bodily Injury Type**
**PFOA & PFOA, 2023 & 2030**




Source: Praedicat general causation risk model

**General Causation (GC) Risk Score By Individual PFAS**
**2023 & 2030**




Source: Praedicat general causation risk model

## Scientific Advances Detect Specific PFAS Chemical Composition

Along with advances in scientific studies linking PFAS to various bodily injuries, the science of PFAS chemical composition detection is also improving. The ability to identify PFAS chemical composition is a tool that can be utilized by plaintiffs going forward. The Battelle Memorial Institute, an American private nonprofit applied science and technology development company, has recently created a PFAS Signature Advanced Analytics

12 The forever chemical risk is now: An actuarial reserving study can help insurers prepare for PFAS claim and litigation. Milliman Report. (November 2023). Retrieved at https://assets.milliman.com/downloads/gated-files/11-6-23_PFAS_Forever-Chemical-Risk-is-Now.pdf

Tool. This tool can identify the source of PFAS in areas of co-mingled sources.[13] This will make it easier for plaintiff attorneys to identify the source of PFAS and therefore more accurately identify the future defendants for their lawsuits.

## Are PFAS Covered by General Liability Policies?

To date we have seen larger corporate defendants choose to fund settlements themselves and reserve rights against their insurers. They then seek to recover the settlement proceeds from their carriers, filing coverage litigation if needed. We anticipate that PFAS coverage litigation will continue on for years. However, there have been some confidential coverage settlements reached between carriers and their insureds related to PFAS claims. [14] PFAS coverage litigation has been filed in ten states so far. The cases involve almost every conceivable coverage issue that can be litigated in the mass tort context. Issues include the losses qualifying as occurrences, whether there is a duty to defend, trigger and allocation across multiple policy periods and within complex coverage towers, as well as the potential applicability of various exclusions—including various iterations of pollution exclusions.

The threshold coverage questions at issue under general liability policies include a determination whether the allegations against a particular insured allege an "occurrence" as defined by the relevant insurance policy. The answer is likely yes.

> "Occurrence" means an accident, including continuous or repeated exposure to substantially the same general harmful conditions.

Further, the duty to defend is broader than the duty to indemnify and allegations must be accepted as plead.

> We will pay those sums that the insured becomes legally obligated to pay as damages because of "bodily injury" or "property damage" to which this insurance applies. We will have the right and duty to defend the insured against any "suit" seeking those damage.

Next, it is important to determine if the allegations against a particular insured assert actionable "bodily injury" under the policy in question. For most defendants, injury from PFAS was likely not expected or intended and will not trigger the following exclusion.

This insurance does not apply to: Expected or Intended Injury

> "Bodily injury" or "property damage" expected or intended from the standpoint of the insured.

## What About the Pollution Exclusion?

To date, several key judicial decisions have been issued regarding the applicability of various types of pollution exclusions in the PFAS context and give us insight as to whether pollution exclusions will bar coverage.

In *Tonoga Incorporated v. New Hampshire Insurance Company,* No. 532546, 2022 N.Y. App. Div. LEXIS 105 (App. Div. 3rd Dep't Jan. 6, 2022) the court supported the application of the pollution exclusion in the PFAS context where the claims arose from traditional environmental pollution at a manufacturing facility.

In *Wolverine Worldwide v. American Insurance Co.,* 1:19-CV-10, 2021 WL 4841167 (W.D. Mich. Oct. 18,2021),

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13 PFAS Signature Advanced Analytics Tool. Battelle. Retrieved at https://www.battelle.org/markets/environment/pfas-and-emerging-chemicals/pfas-assessment-and-investigation/pfas-signature-advanced-analytics-tool

14 Tyco reached an undisclosed settlement of its MDL coverage dispute with certain of its carriers. Konnath, H. AIG insurers near deal with foam co. over MDL coverage. Law360. (May 7, 2024). Retrieved at: https://www.law360.com/productliability/articles/1834701/aig-insurers-near-deal-with-foam-co-over-mdl-coverage

the court found that in the PFAS context, the carrier's denial based upon their pollution exclusion was not appropriate as the sudden and accidental exception (used pre-1986) to the pollution exclusion precluded a denial of coverage.

In *Colony Insurance v. Buckeye Fire Equipment,* 2020 U.S. Dist. LEXIS 194709 (W.D.N.C. Oct. 20, 2020), the court held that the pollution exclusion applied only to traditional environmental pollution, which did not include bodily injury from direct contact with a pollutant. The Court therefore reasoned that the exclusion did not apply to the underlying claims in the PFAS AFFF litigation.

The pollution exclusion may be applicable in traditional environmental exposures. However, where bodily injury is caused by individualized exposure to PFAS or an alleged product failure, courts are reluctant to uphold pollution exclusions. Many PFAS claims are now being framed as product liability claims rather than traditional pollution claims, potentially circumventing pollution exclusions. As litigation expands to include retailers and product manufacturers who used PFAS in their products, this distinction becomes increasingly relevant. At the end of the day, we have seen that courts are reluctant to uphold pollution exclusions to bar coverage for PFAS claims that are not in the traditional context of environmental pollution.

## We Recommend

To date, known casualty PFAS settlements exceed $16 billion. As coverage issues regarding PFAS claims develop and litigation expands (beyond traditional manufacturers to downstream product users), re/insurers should consider adapting their underwriting approach to include comprehensive exclusion wording, enhanced risk assessment, and strategic portfolio management. Insurance carriers already regularly exclude PFAS for manufacturing, food packaging, and other risks with clear PFAS risk or exposure.

The Insurance Services Office ("ISO") has facilitated this by approving and making PFAS exclusion endorsements available for general liability, umbrella, business owners, and auto dealers' coverage forms.[15] Brokers and insureds expect to have PFAS-related conversations. Re/insurers are starting to drive discussions on PFAS. Where carriers have both admitted and non-admitted offerings, they seem to be using the same PFAS exclusion on both. For ease of reference, we have included examples of insurance and reinsurance PFAS exclusions in the attached appendix.

If you have any questions or are interested in learning more about this topic, please feel free to contact Frank DeMento (fdemento@transre.com) or Bryan McCarthy (bmccarthy@transre.com).

15 Germond, N. ISO Updates Forms to Exclude Coverage for Perfluoroalkyl and Polyfluoroalkyl (PFAs) Substances. Independent Agent. Retrieved at https://www.independentagent.com/vu/Insurance/Commercial-Lines/Miscellaneous/GermondISOPFASExclusions.aspx

## Appendix – PFAS exclusion examples

Attached are

Insurance carrier PFAS exclusion examples:

- Insurance carrier PFAS exclusion example 1 using ISO form
- Insurance carrier PFAS exclusion example 2
- Insurance carrier PFAS exclusion example 3

Reinsurer PFAS exclusion examples:

- PFAS reinsurance model exclusion 3 – International Casualty Reinsurance & North American Casualty Reinsurance Panel
- PFAS reinsurance model exclusion 4 – International Casualty Reinsurance & North American Casualty Reinsurance Panel

Insurance carrier PFAS exclusion example 1 using ISO form



**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# EXCLUSION – PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**A.** The following exclusion is added to Paragraph **2. Exclusions** of **Section I – Coverage A – Bodily Injury And Property Damage Liability:**

**2. Exclusions**

This insurance does not apply to:

**Perfluoroalkyl And Polyfluoroalkyl Substances**

**a.** "Bodily injury" or "property damage" which would not have occurred, in whole or in part, but for the actual, alleged, threatened or suspected inhalation, ingestion, absorption, consumption, discharge, dispersal, seepage, migration, release or escape of, contact with, exposure to, existence of, or presence of, any "perfluoroalkyl or polyfluoroalkyl substances".

**b.** Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "perfluoroalkyl or polyfluoroalkyl substances", by any insured or by any other person or entity.

**B.** The following exclusion is added to Paragraph **2. Exclusions** of **Section I – Coverage B – Personal And Advertising Injury Liability:**

**2. Exclusions**

This insurance does not apply to:

**Perfluoroalkyl And Polyfluoroalkyl Substances**

**a.** "Personal and advertising injury" which would not have taken place, in whole or in part, but for the actual, alleged, threatened or suspected inhalation, ingestion, absorption, consumption, discharge, dispersal, seepage, migration, release or escape of, contact with, exposure to, existence of, or presence of, any "perfluoroalkyl or polyfluoroalkyl substances".

**b.** Any loss, cost or expense arising, in whole or in part, out of the abating, testing for, monitoring, cleaning up, removing, containing, treating, detoxifying, neutralizing, remediating or disposing of, or in any way responding to or assessing the effects of, "perfluoroalkyl or polyfluoroalkyl substances", by any insured or by any other person or entity.

  

**C.** The following definition is added to the **Definitions** Section:

"Perfluoroalkyl or polyfluoroalkyl substances" means any:

**1.** Chemical or substance that contains one or more alkyl carbons on which hydrogen atoms have been partially or completely replaced by fluorine atoms, including but not limited to:

**a.** Polymer, oligomer, monomer or nonpolymer chemicals and their homologues, isomers, telomers, salts, derivatives, precursor chemicals, degradation products or by-products;

**b.** Perfluoroalkyl acids (PFAA), such as perfluorooctanoic acid (PFOA) and its salts, or perfluorooctane sulfonic acid (PFOS) and its salts;

**c.** Perfluoropolyethers (PFPE);

**d.** Fluorotelomer-based substances; or

**e.** Side-chain fluorinated polymers; or

**2.** Good or product, including containers, materials, parts or equipment furnished in connection with such goods or products, that consists of or contains any chemical or substance described in Paragraph **C.1.**

Insurance carrier PFAS exclusion example 2

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

# EXCLUSION - PERFLUORINATED COMPOUNDS (PFC) AND PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**A.** The following exclusion is added to Paragraph **2. Exclusions** of **Section I - Coverage A - Bodily Injury And Property Damage Liability** and Paragraph **2. Exclusions** of **Section I - Coverage B - Personal And Advertising Injury Liability**:

This insurance does not apply to:

**1.** "Bodily injury", "property damage", "personal and advertising injury" or any liability, costs, expenses, damages or any other form of relief, remedy or recovery that may be awarded or incurred arising, directly or indirectly, out of or as a consequence of "PFC/PFAS", including but not limited to:

**a.** Any adverse health effects associated with or arising from the disruption of the endocrine system of any person or animal;

**b.** Manufacturing, handling, sale, distribution, marketing, installation, repair, removal, abatement, replacement or handling of "PFC/PFAS" or products containing "PFC/PFAS";

**c.** An actual, alleged or threatened discharge, dispersal, seepage, migration or release of "PFC/PFAS" whether intentional or unintentional; or

**d.** Consumption, ingestion, presence, inhalation or use of, contact with or exposure to "PFC/PFAS", whether by direct or passive exposure.

**2.** Any loss, cost or expense arising out of any:

**a.** Request, demand, order, or other requirement, whether statutory or regulatory, that any insured or others test for, investigate for, monitor, clean up, abate, remove, remediate, contain, treat, detoxify or neutralize, dispose of, or in any way respond to, or assess the effects of "PFC/PFAS"; or

**b.** Claim or suit by or on behalf of a governmental authority for damages because of testing for, investigating for, monitoring, cleaning up, abating, removing, remediating, containing, treating, detoxifying or neutralizing, disposing of, or in any way responding to or assessing the effects of "PFC/PFAS".

**B.** The following definition is added to **Section V - Definitions**:

"PFC/PFAS" means:

**1.** Any substance, material or compound that is or contains perfluorinated compounds or per-and polyfluoroalkyl substances, including but not limited to perfluorobutanoic acid (PFBA), perfluorohexanoic acid (PFHxA), perfluoroheptanoic acid (PFHpA), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), perfluorodecanoic acid (PFDA), perfluoroundecanoic acid (PFUnA), perfluorododdecanoic acid (PFDoDA), perfluoroobutane sulfonic acid (PFBS), perfluorohexane sulfonic acid (PFHxS), perfluorooctane sulfonic acid (PFOS), perfluorooctane sulfonamide(FOSA), perfluorodecane sulfonate (PFDS), perfluoroundecanoic acid (PFUnA), perfluorododecanoic acid (PFDoA), perfluorotridecanoic acid (PFTrDA), perfluorotetradecanoic acid (PFTeDA) or 6:2 Fluorotelomer sulfonate (6:2 FTS);

**2.** Any substance, material or compound that is identified or acknowledged by any federal, state, international or other governmental agency or authority, including but not limited to the United States Environmental Protection Agency (EPA), the Centers for Disease Control and Prevention (CDC), the Agency for Toxic Substances and Disease Registry (ATSDR), the National Institutes for Health (NIH) or the International Agency for Research on Cancer (IARC):

**a.** As or to contain a perfluorinated compound or a per-and polyfluoroalkyl substance; or

**b.** To exhibit or demonstrate the same or similar harmful properties as a perfluorinated compound or a per-and polyfluoroalkyl substance;

**3.** Any constituents, additives, degradation, break down, or byproducts to or of any substance, material or compound set forth in subparagraphs **1.** or **2.** above, including but not limited to homologues, isomers, salts, esters, alcohols, acids, and precursor chemicals, compounds and derivatives.

The addition of this endorsement does not imply that other policy provisions, including but not limited to any pollutant or pollution exclusion, do not exclude coverage for "PFC/PFAS" related "bodily injury", "property damage", "personal and advertising injury", expense, loss, demand, claim, liability or legal obligation.

Insurance carrier PFAS exclusion example 3

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

# PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) EXCLUSION

This endorsement modifies insurance provided under the following:

**EXCESS LIABILITY COVERAGE FORM**

1. **SECTION IV - EXCLUSIONS** is amended to add the following Exclusion:

   **Per- And Polyfluoroalkyl Substances**

   This insurance does not apply to any "injury or damage", loss, cost or expense arising out of, or directly or indirectly related to:

   1. any "PFAS".
   2. any substance or product made of, made with or containing any "PFAS", or any substance or product which has the same or substantially similar chemical formulation, structure or function as "PFAS", regardless of the name of the substance or product; or
   3. any monitoring, clean-up, removal, containing, treating, detoxifying, testing, neutralizing or in any way responding to, or assessing the effects of "PFAS".

2. **SECTION VI - DEFINITIONS** is amended to add the following Definition:

   "PFAS" means per- and polyfluoroalkyl substances, including but not limited to, perfluorooctanic acid (PFOA), perfluorooctanesulfonic acid (PFOS), perfluorononanoic acid (PFNA), perfluorobutanoic acid (PFBA), perfluorobutanesulfonic acid (PFBS), perfluoropentanoic acid (PFPeA), perfluorohexanesulfonic acid (PFHxS), perfluorohexanoic acid (PFHxA), perfluoroheptanoic acid (PFHpA), perfluorooctanesulfonamide (PFOSA), perfluorodecanoic acid (PFDA), perfluorodecanesulfonic acid (PFDS), perfluoroundecanoic acid (PFUnA), perfluorododecanoic acid (PFDoA), perfluorotridecanoic acid (PFTriA), perfluorotetradecanoic acid (PFTreA), 6:2 Fluorotelomer sulfonic acid (FtS 6:2), GenX and other replacement PFAS, or any chemical included on the U.S. Environmental Protection Agency's PFAS Research List, including additions and amendments thereto.

**ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.**

**PERFLUORINATED COMPOUNDS, PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS) EXCLUSION NO. 3**

**(For use on reinsurance agreements)**

1. **This Reinsurance Agreement does not cover any claim for actual or alleged loss, liability, damage, compensation, injury, sickness, disease, death, medical payment, defence cost, cost, expense or any other amount, directly or indirectly and regardless of any other cause contributing concurrently or in any sequence, originating from, caused by, arising out of, contributed to by, resulting from, or otherwise in connection with any PFAS, such as any perfluoroalkyl or polyfluoroalkyl substances for example.**

2. **For the purposes of this Exclusion, loss, liability, damage, compensation, injury, sickness, disease, death, medical payment, defence cost, cost, expense or any other amount, includes, but is not limited to, any cost to clean-up, detoxify, remove, monitor, contain, test for or in any way respond to or assess the effect of any PFAS, such as any perfluoroalkyl or polyfluoroalkyl substances for example.**

3. **PFAS means any organic molecule, salt, free radical or ion, the composition of which includes at least one:**

   a. **perfluorinated methyl group (-$CF_3$); or**
   b. **perfluorinated methylene group (-$CF_2$-).**

**LMA5625**
**29 November 2023**

**PERFLUORINATED COMPOUNDS, PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS) EXCLUSION NO. 4**

**(For use on reinsurance agreements)**

1. **This Reinsurance Agreement does not cover any claim for actual or alleged loss, liability, damage, compensation, injury, sickness, disease, death, medical payment, defence cost, cost, expense or any other amount, directly or indirectly and regardless of any other cause contributing concurrently or in any sequence, originating from, caused by, arising out of, contributed to by, resulting from, or otherwise in connection with any PFAS, such as any perfluoroalkyl or polyfluoroalkyl substances for example.**

2. **For the purposes of this Exclusion, loss, liability, damage, compensation, injury, sickness, disease, death, medical payment, defence cost, cost, expense or any other amount, includes, but is not limited to, any cost to clean-up, detoxify, remove, monitor, contain, test for or in any way respond to or assess the effect of any PFAS, such as any perfluoroalkyl or polyfluoroalkyl substances for example.**

3. **PFAS means any organic molecule, salt, free radical or ion, the composition of which includes at least one:**

   a. **perfluorinated methyl group (-$CF_3$); or**
   b. **perfluorinated methylene group (-$CF_2$-).**

4. **If Reinsurers allege that this Exclusion applies to any claim under this Reinsurance Agreement the burden of proving the contrary shall be upon the Reinsured.**

**LMA5626**
**29 November 2023**