WHAT TO KNOW BEFORE PURCHASING "PFAS-FREE" GEAR

BACKGROUND

Three years ago, the International Association of Fire Fighters and the Metropolitan Fire Chiefs Association (Metro Chiefs) issued a joint safety advisory warning of the health risks associated with PFAS in firefighting gear.

Since then, leading health and science organizations – including the International Agency for Research on Cancer (IARC) – have classified certain PFAS chemicals as carcinogenic and affirmed their risks to humans. As the evidence grows, the IAFF remains committed to ensuring members have the information needed to make informed decisions about protective equipment.

In October 2024, following years of IAFF advocacy, NFPA issued Standard 1970, which creates a Restricted Substances List limiting PFAS and other hazardous chemicals in turnout gear. These requirements, however, do not take effect until Sept. 18, 2025, and manufacturers may continue selling existing gear until March 18, 2026. This delay leaves a critical gap where fire fighters could unknowingly purchase gear containing PFAS or other hazardous substances such as halogenated flame retardants.

SUMMARY

WHAT IS THIS

A safety update on PFAS and other hazardous substances in fire fighter protective gear.

WHY IT MATTERS

Independent testing shows some turnout gear marketed as "PFAS-free" contains toxic or undisclosed flame retardants – sometimes at far higher concentrations than PFAS in legacy gear. Outer shells may also still contain fluorinated substances despite manufacturer assurances.

WHAT TO DO

Don't rely on manufacturer assurances. Require proof of compliance with the NFPA 1970 Restricted Substances List, and request full chemical disclosure – including PFAS, flame retardants of any type, and any other chemical treatments not covered by the standard – before purchasing gear.

When in receipt of newly purchased gear, affiliates should work with their department to conduct their own independent confirmatory testing.

While some manufacturers now market "PFAS-free" gear, NFPA 1970 requires them to show proof from an independent, accredited lab that their products comply with the Restricted Substances List. This compliance, however, only covers substances on the list and scientists continue to identify new or previously unknown or new hazardous chemicals. That is why the IAFF, in partnership with trusted scientists, continues to evaluate gear for risks beyond current NFPA requirements.

A central focus of this research is identifying regrettable substitutions – the practice of replacing one hazardous chemical with another. Some newer products may eliminate PFAS only to add other harmful substances, such as halogenated flame retardants. Because manufacturers routinely fail to disclose the use of hazardous substances in their gear, scientists must continually identify hidden risks. Without full chemical disclosure from manufacturers, and proof from an independent, accredited lab, no product marketed as safe can be assumed to pose less risk – and neither PFAS nor toxic flame retardants are acceptable in our PPE.

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GUIDANCE

The IAFF urges affiliates to consider the following:

NO PROTECTIVE GEAR HAS BEEN PROVEN COMPLETELY HAZARD-FREE.
A recent examination of a "PFAS-free" moisture barrier on the market revealed intentional application of the brominated flame retardant DBDPE, which is not found in legacy moisture barriers. It was measured at concentrations 19 times higher than PFAS in legacy barriers. DBDPE is included on the NFPA's Restricted Substances List and is structurally similar to BDE-209, a toxic flame retardant that has been banned.

Hazardous substances, like flame retardants, are intentionally added to "PFAS-free" moisture barriers to meet NFPA performance standards such as the vertical flame test. This test separates the moisture barrier from the three-layer PPE ensemble for testing and does not reflect how fire fighters actually use our gear.

VERIFY BEFORE YOUR PURCHASE.
If your department is purchasing gear marketed as "PFAS-free" or free of hazardous substances, require proof of compliance with NFPA 1970's Restricted Substances List from an independent, accredited lab. Although the list does not take effect until Sept. 18, 2025 – and manufacturers may sell existing gear until March 18, 2026 – departments should request documentation now to ensure transparency and reduce risk.

NEVER RELY SOLELY ON MANUFACTURER CLAIMS.
Ask manufacturers directly whether the gear your department is considering contains PFAS, halogenated flame retardants, organophosphate flame retardants, flame retardants of any other type, or any other chemical treatments.

Do not accept assurances that a material or chemical treatment is non-toxic. Ask whether it has been tested for toxicity to humans utilizing established toxicity assays and whether those results are published in a peer-reviewed scientific journal, not an industry white paper. A "risk assessment" is not a substitute for peer-reviewed, published data.

When in receipt of newly purchased gear, affiliates should work with their department to conduct their own independent confirmatory testing.

Protecting your health is this union's top priority. The IAFF will not rely on industry's word when it comes to member safety – and neither should you. We encourage affiliates to ensure their departments only purchase gear that complies with NFPA 1970's Restricted Substances List and demand full chemical disclosure before buying gear.

For questions, use the Contact Us form at the bottom of this page.