

## Overview of NFPA 1970 (1971) - 2025 Changes What They Mean for PPE

### Why NFPA 1970 Matters

NFPA 1970 (1971) - 2025 advances firefighter PPE with a stronger emphasis on health, exposure reduction, comfort, and real-world durability—not just thermal protection. The intent is safer for firefighters on scene and long after the fire.

### Key Changes at a Glance

#### 1. NFPA 1970 is a consolidation of four standards: 1971, 1975, 1981, 1982.

- NFPA 1971 still exists. It is under NFPA 1970 in a separate section, just as 1975, 1981, and 1982.
- The entire NFPA 1970 standard is currently in Edition 2025. This edition supersedes the NFPA 1971-2018 edition, which has now expired.

#### 2. Mandatory Particulate-Blocking Hoods

- Hoods must block  $\geq 90\%$  of particulates (0.1–1.0 microns) and provide a TPP minimum of 20 cal/cm<sup>2</sup>.
- This reduces exposure to carcinogenic combustion byproducts at the neck, jawline, and head and keeps the wearer thermally protected.

#### 3. PFAS Transparency & Labeling

- Non-PFAS claims are allowed only when testing confirms <100 ppm total fluorine, improving transparency and comparison while addressing long-term health concerns. A product that meets this requirement implies that PFAS was not intentionally added to the process.

#### 4. Restricted Substances List (RSL)

- New testing requirements address harmful chemicals such as hard metals, certain flame retardants, and plasticizers to reduce chronic exposure risk. Examples include, but are not limited to, antimony, bromine, benzene, etc. There are hundreds of substances in this RSL.

### Understanding Performance Metrics

- TPP measures how well the wearer is protected from thermal exposure – think insulation.
- THL measures how efficiently heat escapes during operations – think breathability.
- Ret isolates evaporative efficiency to heat loss to better predict physiological strain by measuring resistance of sweat and vapor through the layers – think body comfort.

### Durability & Real-World Wear

- Multi-environmental conditioning testing ensures outer shells maintain strength after laundering, heat exposure, and flexing — better reflecting on-the-job wear.

PPE Committee Evaluation Checklist available online 

