

# NFPA 1971, 2007 Edition

## *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*

# Revised Scope

- **NFPA 1971 will now include:**
- **Protective ensemble for structural fire fighting; and**
- **Protective ensemble for proximity fire fighting (formerly NFPA 1976)**
- **No longer a separate proximity fire fighting ensemble standard**



# Changes to Current Tests

- **Total Heat Loss (THL)**
  - Increase of minimum THL to 205 W/m<sup>2</sup>
- **Conductive & Compressive Heat Resistance (CCHR)**
  - Increase of minimum CCHR to 25 seconds



# Garment Design Changes



- Reduction in minimum collar height to 3”
- Restriction on location of chest trim
- Allowance of gaps in trim at interior seams
- Cuff trim location restriction



# New Tests

- **Trim Fluorescence Test**
  - **Will most likely eliminate white trim because white is not a fluorescent colour**



# New Tests

- **Light Degradation Resistance Test (moisture barriers only)**
  - 40 hour Xenon arc exposure then 2psi sutter test for 1 minute



# New Additions - DRD

- *Drag Rescue Device*
- **Mandatory requirement**
  - For all structural and proximity fire fighting coats and coveralls



# New Additions - DRD

## Design criteria:

- Located on upper torso to pull on upper body
- Can be located inside or outside the garment
- Must have an access point and a “handle”
- Cannot cause the SCBA to be pulled off the body
- Easy access and deployment
- Access for visual inspection
- Must prohibit accidental deployment



# New Additions - DRD

## Performance criteria:

- Minimum strength for material and seams
- Deployment ease & time
- Drag/function test



# New Additions - CBRN

- ***Chemical, Biological, Radiological, Nuclear***
- **Optional (not mandatory) requirement applies to whole ensemble**
- **Tests include:**
  - **Testing of the barrier layer against Weapons of Mass Destruction (WMD) agents and Toxic Industrial Chemicals (TIC).**
  - **Whole ensemble liquid tight integrity**
  - **Whole ensemble vapour inward leakage**
  - **Additional physical performance requirements**

# New Additions - CBRN

- **Whole ensemble testing:**
  - **MIST (Man-In-Simulant-Test) PF of 360 systemic and 361 local**
  - **Whole ensemble shower test**
- **Chemical testing after rigorous preconditioning**



# Helmet Changes



- Added minimum TPP of 20 for ear covers
- Allowable ratchet access in ear covers
- Goggles can be removable
- Mandatory moisture barrier in proximity shrouds
- Revised design fit/size requirements for shroud

# Glove, and Boot Changes



- Two additional mandatory glove sizes of XXS & XXL
- Minimum 10” footwear height
- Dual men’s/women’s sizing not permitted

# Summary

- **The standard will not be published until September of 2006, so some items could be subject to change.**
- **Some considerations were not included and are under development for inclusion in future revisions.**