Exposure Risks: Carcinogens

Urban Fire Forum
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AT THE FIRE STATION

• Proper use of **diesel exhaust containment** systems.

• Proper **sealing of doors** leading to living/office areas.

• Keep turnout gear (PPE) **outside** of living/office areas.
  • Do not walk in living/office areas with dirty boots and gear after a fire.

• Report any **damage to asbestos** wrapped pipe encapsulation in fire stations.

• Use **nitrile gloves** when cleaning/maintaining dirty tools and equipment.

• **Wash hands** thoroughly after handling tools/equipment, dirty station wear, & PPE.
AT THE FIRE SCENE

• **Wear PPE** properly.

• **Use SCBA** from the initial attack through the completion of overhaul.

• **Do not rely on multiple gas detectors** to determine PPE/SCBA donning and doffing.

• **Gently rinse or brush off fire debris and soot** and place PPE in a large contractor’s garbage bag before entering apparatus to return to station.

• **Use wet naps** to clean hands, neck, throat, jaw, and face after fire operations are complete.
99% of smoke particles collected during overhaul were less than 1 micron in diameter.
AFTER THE FIRE

- **Clean all PPE**, including helmets, hoods, and gloves.
  - All PPE must be cleaned in accordance with [NFPA 1851](https://www.nfpa.org) Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, and manufacturer recommendations.
  - Wear nitrile gloves.

- **Clean tools, equipment, SCBA, and the inside of the apparatus cab**.
  - Wear nitrile gloves.

- **Shower** thoroughly and change into clean station work clothes.

- **Do not take soiled PPE or dirty work clothes** home.

- **Never transport soiled PPE in a personal vehicle**. Have it returned to station via fire apparatus.
SELF ACTIONS

- **Eliminate the attitude** “The dirtier the gear, the tougher and more experienced I am” attitude.
- On assignments from station-to-station, place gear in a zippered gear bag or in a container with lid.
- Don’t smoke or chew tobacco
- Watch your diet and control your weight.
- **Exercise** regularly.
- Use alcohol in moderation.
- Use sunscreen.
- Have an annual medical exam.
- Have appropriate cancer screenings. Early detection and treatment are essential.
Presumption

- A fact assumed to be true
- May or may not be certain, but probable
- Capable of being rebutted by contrary proof
• Some common language:
  • Pre-employment medical
  • Member must demonstrate he/she was exposed
  • Cancer must be reasonably linked
  • Carcinogen is reasonably associated w/ the disabling cancer’s primary site
  • Cancer caused by contact with a toxic substance
  • Defined period of coverage
  • Rebuttable
Period of Coverage

• 8 States - no requirements for time served as a fire fighter before the presumption applies, time the presumption applies post service period, or some combination of both

• 12 States require 5 years of service

• 4 States require 10 years

• 1 State each requires 3 years, 4 years, 7 years, 8 years and 12 years
Period of Coverage

- 6 states extend coverage to 5 years post service
- 2 States to 10 years
- 2 states to 20 years
- 1 state to 600 weeks (11.5 years)
- 1 state to 3 months
- 2 states require 65 years old or younger
- 1 state requires 68 or younger
- Canadian provinces require various service times based on the type of cancer but none appear to have a post retirement sunset date
Rebuttal

1. The disease resulted from a specific non-occupational cause (risk factors)
2. The disease was not caused by the employment
Pre-Employment Medical

• Requirement for most statutes

• No evidence of cancer at time of employment
Burden of Proof Shifts

More difficult test-
1. Must prove exposure
2. Exposure caused harm
3. Causal connection must be made
Burden of Proof

- Presumption can be rebutted by preponderance of the evidence
- Contrary can be shown by competent evidence
- Clear and convincing medical evidence that the cause of the condition is unrelated to the FF's employment
- Presumption can be overcome by a preponderance of competent evidence to the contrary
Preponderance

• Lowest burden of proof

• Evidence persuades that the facts are more probably weighted one way than the other
Clear and Convincing Evidence

• Middle burden of proof

• Evidence so clear, direct, weighty in terms of quality, and convincing to cause you to come to a clear conviction of truth

• A high probability of truth
Beyond a Reasonable Doubt

• Highest burden of proof

• Evidence so strong, only a remote possibility of an extenuating circumstance may exist

• Not intended for workers comp or presumptive laws

• Criminal courts
Burden of Proof

- Preponderance: 51%
- Clear and Convincing: 65%
- Beyond a Reasonable Doubt: 90%
Welcome to the IAFF presumptive disability provisions database for the United States and Canada

A presumptive disability law links a particular occupation with a disease or condition that has been shown to be a hazard associated with that occupation.

As a result of this linkage, if an individual employed in the occupation covered by the presumption contracts a disease or condition that is specified in the presumptive law, then that disease or condition is presumed to have come from that occupation. In this case, the burden of proof shifts from the employee to the employer to demonstrate that the condition was not in fact associated with the occupation but with another cause.

For fire fighters and emergency medical responders, scientific evidence has demonstrated an increased risk for heart disease, lung disease, cancer and infectious diseases. At this time, most of the United States and Canadian provinces have some form of presumptive law that applies to fire fighters and emergency response personnel. These laws vary greatly between states and provinces.

The IAFF Division of Occupational Health, Safety & Medicine has developed an information database of the current presumptive disability provisions in the United States and Canada.
Points to Remember

• Understand your law and how it’s written

• Understand how your State/Province defines the balance of probability (case law)

• Presumptive is not 100%. Guaranteed

• Challenges from employers, work comp, and pension