



# The Training Brief

Quick Reference mini-training Topics  
**Cancer Prevention Best Practices for the Fire Station**

*The purpose of this training topic is to reduce exposure risk to harmful chemicals after returning to the fire station and prior to going off shift.*

## Discussion

**Fact:** Harmful chemicals can exist in the fire station from diesel exhaust, returning from a fire incident where contaminated PPE's, and equipment are transported back to the fire station.

**Key Points:** This strategy employs the idea of creating and then managing three levels of exposure to contaminants: Hot Zone (red) for high hazard, Transition Zone (yellow) for moderate hazard and Cold Zone (green) for low hazard.

**Action:** By dividing the fire station in to the three hazard zones it reduces exposure to cancer causing chemicals at the fire station. While common sense dictates restricting contaminated turnout gear from living areas in a station, it is increasing cancer rates among firefighters helping focus attention to floor plans in fire station design



**Make the necessary changes**

All fire incidents produce toxic smoke that can have negative short and long-term health effects on firefighters. Exposures can continue after leaving the fireground through inhalation, ingestion, absorption of toxicants. Contaminants can be inadvertently transported to homes and family when failing to clean or decontaminate tools, equipment, and personnel after each fire incident.

Fire stations need to have preidentified hot, warm, and cold zones within the fire station:

### **Hot Zone:**

- Treat apparatus floor as a hot zone because of diesel exhaust, traffic from contaminated boots, contaminated PPE, tools and equipment, etc.
- Items that should not be located in the hot zone include but not limited to:
  - Ice machines or refrigerators.
  - Workout equipment.
  - Recliners/loungers.
- PPE storage should be situated to prevent exhaust contamination.
- Tool maintenance and checks should be performed outdoors, to prevent exposure.
- Apparatus bay floors should not be dry swept, blown out with a leaf blower or compressed air. (Can make diesel soot particulates airborne).

### **Warm Zone:**

- Where handwashing occurs prior to entering the living areas of the fire station.
- PPE storage should be stored in a separate area with its own ventilation system.
- Washer/Extractors should be in the warm zone.
- Cleaning of contaminated PPE and equipment (SCBA, radio, gloves, etc.) should take place here.

### **Cold Zone (living areas or offices):**

- No fireground contaminants, or diesel exhaust, should enter this area from the air, personnel, or equipment.
- PPE should not enter cold zones.
- Do not prop open doors between living or office areas and the apparatus room.