

SANTA CLARA COUNTY LOCAL FIRE SERVICE AND RESCUE MUTUAL AID PLAN

APPENDIX 14I – FIRE GROUND DECONTAMINATION & EXPOSURE REDUCTION

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Introduction

Post-suppression operations at fire scenes is essential for the protection of citizens, firefighters, the environment and property. Post-suppression operations include overhaul, salvage and investigation. Overhaul includes the search for and extinguishment of hidden or remaining fire and ensuring the fire scene is safe and secure. Salvage operations is the retrieval of personal and useable items for the occupants. Investigation is conducted to determine fire origin, cause and the preservation of evidence.

Many studies have shown that during these operations, toxic gases, which contain carcinogens, irritants and asphyxiates may be present with or without the presence of smoke. These particles may be inhaled and/or absorbed into firefighter's bodies. Technology does not exist to detect or quantify all respirator and/or dermal hazards in the post-suppression environment. Carbon Monoxide and Hydrogen Cyanide, even at safe levels, does not correlate to the levels of other toxicants found at a fire scene, therefore, these detectors cannot be relied upon to indicate when one might safely don or doff an SCBA.

The purpose of this policy is to guide safe and effective post-suppression operations and reduce Firefighter exposure to carcinogens.

Definitions

PERSONAL PROTECTIVE EQUIPMENT (PPE) – SCBAs and Structural firefighting equipment including coat, pants, boot, helmet, gloves and hood.

GROSS DECONTAMINATION - The start of the decontamination process during which the amount of surface contaminants is significantly reduced from victims or responders to reduce the amount of additional exposure.

HAZARD ZONE – The area with the greatest risk for toxic exposure due to active fire and/or direct exposure to products of combustion. Generally, 75 feet around the structure, but may be affected by fire size, location and type.

Policy

It is the policy of all Fire Departments in Santa Clara County that when responding on Mutual Aid, Automatic Aid Incidents and/or on multijurisdictional training exercises that all Fire Suppression Personnel (to include Fire/Arson Investigators) involved in overhaul operations (excluding vegetation fires) shall:

1. Wear full structural Personal Protective Equipment.
2. Be masked up and breathing air from their SCBA.
3. Go through gross decontamination prior to leaving the incident.
4. Wash all exposed PPE according to their specific departmental procedures as soon as it is practical and prior to the PPE being returned to service.

The IC should establish a Post-Suppression and Decontamination plan in conjunction with the Incident Safety Officer that ensures the following considerations are implemented as necessary:

- Stability and overall safety of the structure should be monitored, with hazardous areas designated with appropriate marking devices (tape, cones, sentries etc.).
- After the fire is extinguished, provide a “cool down” period of the Hazard Zone to allow toxic gases to dissipate prior to initiating overhaul (45 minutes recommended). Mechanical ventilation will assist with this process with electrical fans being the preferred method.
- Provide incident staffing that allows for frequent crew rotation during the overhaul process. This will limit exposure times to hazardous atmospheres and particulates during the overhaul process.
- Only remove debris from the Hazard Zone that will assist in preventing further loss of property or re-ignition of the fire.
- IC should consider creating “Hot”, “Warm” and “Cold” zones that would further delineate the fire area.
- Set up a “Gross Decontamination Area” for Firefighters to remove contaminants from their PPE prior to entering a formal rehabilitation area.
 - Firefighters should complete a gross decontamination prior to entering the formal rehabilitation area.
 - Stage dirty and contaminated PPE away from, and down-wind from, the rehabilitation area.
 - Firefighters shall follow the decontamination procedures outlined by their own

specific Department policies and procedures.