



# Lauderdale-By-The-Sea Fire Department

<b>S.O.P Number: 500</b>	<b>Effective Date: October 1, 2010</b>
<b>Section: 510</b>	
<b>Subject: Personal Protective Equipment Use and Care</b>	
<b>By Order of the Fire Chief: Steven Paine</b>	

## Section 510: Personal Protective Equipment Use and Care

### Section 1 – Purpose

The purpose of this procedure is to assure that all personnel are prepared to commence fire suppression or rescue operations immediately on arrival at an emergency scene while maintaining the highest degree of personal safety for all personnel.

### Section 2 – Scope

This procedure shall apply to all personnel operating at the scene of any emergency incident or training exercise.

### Section 3 – Responsibility

As with any safety procedure, primary responsibility for adherence to this procedure rests with each individual within their respective companies. Authority to deviate from this procedure rests solely with the Company Officer who bears full responsibility for the results of any deviation.

### Section 4 – Definition

1. For the purpose of this procedure, full personal protective equipment consists of helmet with face shield or goggles, sock hood, turnout coat, turnout pants, boots and gloves. All equipment is to be properly fastened and closed with sock hood on, coal collar turned up, and helmet earflaps down.
2. All equipment shall be issued or approved by the fire department. Alterations to any equipment, such as the removal of coat or pants liners, are prohibited. If the need for some alteration is required, the department's Safety Officer must first approve it.

### Section 5 - Application

Protective equipment shall be worn by all personnel, according to the following guidelines:

1. Under no circumstances shall any aspect of personal safety be sacrificed in order to increase the speed of emergency or training operations. Emergency or training operations shall not commence until all involved personnel have donned all necessary protective equipment.



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2. All firefighting personnel shall wear full protective equipment when responding to any type of alarm indicative of fire, potential fire, explosion, potential explosion, or release of any type of hazardous material. All personnel protective equipment (with the exception of gloves and helmets where practical) shall be donned prior to boarding the apparatus or after apparatus arrives to the scene. **No Donning will be permitted while the apparatus is in motion.**

Full protective equipment is optional for Drivers and Command Officers during the response unless they are in close proximity to the hot zone. Drivers and Command Officers command staff shall wear a minimum of bunker boots, bunker pants and Helmet at any fire related or Hazardous Material incidents.

3. If an alarm is received while the apparatus is out of quarters, all personnel shall don full protective equipment immediately upon arrival at the emergency scene and prior to beginning any emergency operations. Optionally, the Company Officer can direct the Driver/Engineer to stop the apparatus until personnel don their personnel protective equipment and reattach their seatbelts.
4. During emergency operations and training exercises, all personnel operating power tools, hydraulic tools or forcible entry tools shall wear full protective equipment. Full protective equipment shall also be worn by all personnel in an area where any of these tools are being used.
5. Personnel operating at the scene of an EMS or rescue incident shall wear whatever protective equipment is necessary to assure personal safety during the incident.
6. Gloves shall be worn at all times when hand tools, power tools, hose, ladders, or any other equipment is used that could cause injuries to the hands. This shall include all work details, maintenance operations and training exercises.
7. Helmets with chinstrap in place shall be worn by all personnel operating at incidents where there is a possibility that tools; equipment or debris from above may fall. This would include all personnel operating above or below grade such as during trench rescue, rappelling, high angle rope rescue, hanging hose, etc.
8. Damage to personal protective equipment shall be immediately reported to the Battalion Chief. The Battalion Chief shall inspect the damaged article and determine if there is a need for immediate replacement. Equipment damaged such that its protective ability is impaired shall not be used. An incident report should be written stating the actions that led to the damage of the equipment.
9. Incident Commanders may use their discretion to determine the appropriate level of protective equipment required for personnel operating at incidents where no specific guidelines have been established. In all cases, personnel shall be required to wear all protective equipment necessary to protect against all foreseeable hazards.



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10. Personal Protective Equipment must be inspected and cleaned after PPE has been exposed to products of combustion such as live fire training, Structure fires and Hazardous Material responses where firefighters have actually encountered hazardous materials or chemicals.

If Hazardous Material or chemicals have been encountered, a decontamination station should be established by the IC or ISO in order to wash off possible contaminants.

## **Section 511 - Maintenance and Care of PPE**

Firefighters must become familiar with their clothing. This familiarity helps firefighters maintain a sense of awareness when changes have occurred that might affect the clothing's performance. NFPA 1851 indicates that gear should be inspected after each use and go through an advanced inspection at least once a year.

### **Routine Inspection**

Conduct a routine inspection of garments after each use. Look for:

- Soiling
- Contamination
- Physical damage
- Damaged trim
- Damaged closures and hardware

### **Advanced Inspection**

At a minimum, conduct inspection every 12 months or whenever routine inspections indicate that a problem may exist. Advanced inspection areas include:

- Moisture barrier and seam sealing integrity
- Fit and coat/pants overlap
- Seam integrity including broken or missing stitches
- Material integrity for loss of strength due to UV or chemical exposure
- Loss or shifting of thermal liner material
- Wristlet integrity and functionality
- Reflective trim and Velcro integrity, attachment and functionality
- Label integrity and legibility
- Liner attachment systems
- Closure system functionality

### **Routine Cleaning**



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Perform the following steps after each use:

- Brush off debris
- Rinse with water
- lightly scrub item with soft bristle brush, if needed
- Spot clean, if needed
- Inspect item
- Clean again as necessary

## **Advanced Cleaning**

At least every six months, subject clothing to more thorough cleaning; general precautions include:

1. Examine manufacturer's label
2. DO NOT USE Chlorine bleach or chlorinated solvents
3. Use cleaning solutions with a pH range of not less than 6.0 and not greater than 10.5
4. No high velocity water jets such as power washers
5. Clean and decontaminate protective ensembles separately from non-protective items
6. Where shells and liners are separable, clean and decontaminate those items with like items (i.e., shells with shells and liners with liners)

## **Procedures when cleaning in a utility sink**

1. Do not overload sink
2. Pre-treat if necessary.
3. Water not to exceed 105 degrees
4. Add cleaning solution or detergent
5. Wear protective gloves & eye/face splash protection
6. Scrub gently using a soft bristle brush. Use care with moisture barrier assemblies
7. Drain water from sink
8. Refill sink; agitate gently using gloved hand or stir stick
9. Gently wring out garments and drain water
10. Repeat (7) and (8) until garment is rinsed
11. Dry the elements
12. Inspect and rewash if necessary
13. Rinse out sink

## **Procedures for machine washing**

1. Do not overload the machine
2. Pre-treat if necessary
3. Fasten all closures, including pocket closures, hook and loop, snaps, zippers, hooks and dees
4. Turn garment inside out and place in a mesh laundry bag
5. Wash temperature not to exceed 105 degrees
6. Add detergent
7. Run one complete cycle, rinsing at least twice



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8. Dry the elements
9. Inspect and rewash if necessary
10. If the machine is to be used for other than protective ensemble elements rinse out machine by running while empty through a complete cycle with 120 degrees to 125 degrees water and detergent

## **Air Drying Procedure**

1. Place elements in an area with good ventilation
2. Do not dry in direct sunlight

## **Machine Drying Procedure**

1. Do not overload the machine
2. Fasten all closures
3. Turn garments inside out and place in a mesh laundry bag
4. If the dryer has a **no-heat** option, use it
5. If heat must be used, the basket temperature shall not exceed 105 degrees
6. **If heat is used, remove garments before they are completely dry**