



HORRY COUNTY
FIRE / RESCUE DEPARTMENT
PROUD * PREPARED * PROFESSIONAL



STANDARD OPERATING PROCEDURE

APPROVED BY GARRY ALDERMAN, FIRE CHIEF:

DATE: 02/11/11

SOP 306

**PERSONAL PROTECTIVE EQUIPMENT INSPECTION AND
CLEANING PROGRAM**

Purpose of this Standard

1. The purpose of this program is to provide employees the best possible outer shell protection for emergency and non-emergency activities. NFPA 1500 requires that personal protective equipment (PPE) inspection be conducted by members on a frequent basis to assure the equipment's continued suitability for use. This program allows for inspection at the station level, as well as by the Battalion Chief.
 - A. Although this program is designed to provide inspections on a regular schedule, PPE shall be inspected by the Company Officer/Battalion Chief immediately upon exposure to heat, hazardous materials and/or blood or body fluids. Aside from this stipulation, PPE shall be inspected annually by the Company Officer/District Chief and monthly as directed elsewhere in the SOP Manual. Personnel shall be prohibited from participating in emergency activities if their personal protective equipment has not been inspected within the last twelve (12) months.
 - B. A Personal Protective Equipment Inspection Form (see page 7) shall be kept on file in the Warehouse files for each individual. It is very important to ensure that name and sizes are recorded on the form, as professional cleaning will remove post-production markings. The Personal Protective Equipment Inspection Form is very specific, however, it is important for the inspector to understand, generally and specifically, what is required of a test to check for proper fit, excessive wear, repair or replacement.

- C. When a turnout coat and/or pants are replaced, a new Personal Protective Equipment Inspection Form shall be issued. All information from the monthly inspections of the replaced equipment shall be transferred to the new form. Replacement of other PPE shall not require the issuance of a new form, however, the replacement may be noted in the comments section. The respective Company Officer/Station Officer shall be notified to initial the form indicating that replacement was accomplished.
- D. Employees are responsible for maintaining their gear in a reasonably clean state. Gear may be washed by any front load washer or by the extractor housed at Station 27. The introduction of health hazards from blood or other body fluids, and the by-products of combustion is a real possibility that should be monitored each shift. Contamination should be promptly and properly addressed through cleaning according to the manufacturer's recommendations.
- E. Questions regarding this matter should be directed to the respective Battalion Chief or the Infectious Control Officer.

2. Annual Inspection

Annually during the month of February, the PPE of all career personnel shall be inspected by their respective Company Officer/Station Officer. Volunteer personnel shall have their PPE inspected by their respective District Chief, no later than March 15th. District Chiefs shall advise their respective Battalion Chief that the inspections have been completed.

3. Monthly Inspection

- A. Where career station officers are assigned, career personnel shall have their PPE inspected by their respective shift officer monthly. Personnel assigned to stations without career supervision shall be responsible for inspecting their own PPE and shall work in conjunction with other career personnel to accomplish item B listed below. All volunteer personnel shall have their PPE inspected by their respective District Chief. Battalion Chiefs are required to make random checks to insure compliance with this program.
- B. Monthly inspections shall encompass a thorough inspection of all items of PPE according to the PPE Inspection Form.

4. Inspection Procedures & Guidelines

The annual and monthly inspection processes are identical, however, it is important that inspectors understand, generally & specifically, what is required of a test to check for proper fit, excessive wear, repair or replacement.

General guidelines – Inspectors should observe 7 basic areas:

- A. All materials shall be free from tears, embrittlement and fraying.
- B. Seams should be intact and show no signs of excessive wear.
- C. Reflective trim should show no signs of abrasions or loss of reflectivity due to heat exposure.
- D. All pockets, knee pads and other accessory items should be firmly attached to the garment and show no signs of excessive wear.
- E. Sleeve and pants cuffs should show no signs of fraying.
- F. The entire garment should be free from excessive dirt and stains. Remember, bleach or cleaners containing bleach will damage the garment. Also, exposure to sunlight will severely damage the outer shell of the turnout coat and pants. PPE should be cleaned and dried according to the manufacturer's recommendations, usually found on a tag sewn inside the garment.
- G. Fabric color change could be caused by exposure to high heat or ultraviolet rays. When so noted, the entire garment should be checked for loss of tear strength.

In addition to the 7 areas listed above, inspectors should be aware that a minimum of a 2" overlap between the coat and pants must be maintained while the wearer is performing routine tasks. This standard is measured by:

- 1. Standing, hands together, reaching overhead as far as possible.
- 2. Standing, hands together, reaching overhead and bending the body forward, to side and backward as far as possible.

Specific guidelines – Inspectors should pay closer attention to the following areas:

- 1. Check turnout coats and pants for:
 - A. Holes and/or wear of the collar. Corduroy collars indicate that the coat is old enough to warrant replacement. On average, a turnout coat has a life expectancy of 3-5 years.
 - B. Intact throat tab stitching and velcro.
 - C. Broken or loose stitches/threads at all double seams including pockets.
 - D. Holes and/or damaged Scotchlite on both sleeves.
 - E. Holes and/or leather shrinkage on suede leather shoulders, elbows and cuffs.
 - F. Holes and/or delamination of neoprene in water wells.
 - G. Burn holes/rips on PBI/Nomex surfaces.
 - H. Wear and/or holes in pockets, inside & out.
 - I. Strength of Velcro fasteners.
 - J. Tears, burns, looseness and reflectivity of all Scotchlite. Use a flashlight or compare to a new piece of Scotchlite.
 - K. Proper operation of all hooks and "D" closures. All hooks and closures should be properly secured, and the process reversed. Properly operated hooks and closures should not allow any uniform to show.
 - L. Excessive grime and soot. This may be an indication of improper personal maintenance, and may require appropriate action.

- M. Missing suspender buttons or holes where buttons were previously.
 - N. Missing snaps on pants pockets.
 - O. Holes in pants pockets.
 - P. Take-up straps on waist of pants.
2. Check inner liner of pants & coats for:
- A. Velcro to outer shell to insure connection to the outer shell.
 - B. All snaps attaching to the outer shell.
 - C. Wear and/or holes in hand/wrist guards.
 - D. Holes and/or delamination of moisture barrier.
 - E. Holes, wear and/or delamination of quilted thermal liner.
 - F. Heavy soot, tar, paint, or melted vinyl on liner.
 - G. Small holes/tears in the outer liner.
 - H. Delamination of seam seals and seam integrity.
3. Check rubber or leather boots for:
- A. Cleanliness and reflectivity of trim.
 - B. Char or heat damage.
 - C. Discoloration (noted by material degradation).
 - D. Fabric/material damage (blunt damage).
 - E. Delamination of seals.
 - F. Steel toe or shank damage (check placement and form).
 - G. Waterproof.
 - H. Sole tread wear.
 - I. Rips, tears &/or holes.
4. Check gloves for:
- A. Cleanliness.
 - B. Char or heat damage (discoloration). Check for strength.
 - C. Fabric/material damage.
 - D. Shrinkage.
 - E. Loss of elasticity.
 - F. Seam integrity or liner pullout.
 - G. Proper fit.
5. Check Nomex hood for:
- A. Cleanliness.
 - B. Char or heat damage (discoloration). Check for strength.
 - C. Fabric/material damage.
 - D. Shrinkage.
 - E. Loss of elasticity.
 - F. Seam integrity or liner pullout.

- G. Proper fit.
6. Check helmet and face shield for:
- A. Cleanliness.
 - B. Char or heat damage (discoloration). Check for strength.
 - C. Fabric/material damage.
 - D. Reflective trim.
 - E. Bubbling, soft spots, dents, cracks, gouges or flaking of the outer shell. If found, remove liner and check the shell from the inside. If damaged area is not soft or didn't transfer through, it is to be considered superficial.
 - F. Cracked or missing suspension, frays, cuts or signs of wear.
 - G. Proper fit.
 - H. Torn interior fabric.
 - I. Discoloration, burns or heat damage to ear flaps.
 - J. Exposure of foam through inner liner shell.
 - K. Stripped adjustable ratchet or sizing adjustment slots.
 - L. Clarity, scratches and cracks (face shield).
7. Check P.A.S. for:
- A. Hook operation.
 - B. Delamination of card.
 - C. Cracked plastic attachment device.

Where significant change to the PPE is noted, the respective Battalion Chief shall be contacted for final disposition. Upon direction from the Battalion Chief, the employee shall return the defective PPE to the Division Chief for repair/replacement as soon as practical.

5. Turnout Gear Cleaning Program

The following guidelines are to be followed to allow for the most effective and efficient use of the professional cleaning program.

- A. The designated drop off points for all stations, and divisions shall be the Departments Procurement Office at the Administrative Building.
- B. When turnout gear is contaminated, the contaminated gear is to be replaced immediately following the incident. The contaminated gear is to be dropped off at the Warehouse, bagged and tagged with the employee's name, for cleaning. Turnout gear contaminated by body fluid shall be placed in an appropriate container/bag for infectious materials. If turnout gear is contaminated after normal business hours, the Battalion Chief shall be contacted to make arrangement for drop off and issuance of replacement gear.

- C. If turnout gear is condemned during the cleaning process. The Division Chief will in turn notify the person and/or the appropriate Battalion Chief to make arrangements for the reissue of turnout gear.
- D. Personnel working during the period, in which their turnout gear is being cleaned, shall make arrangements to obtain turnout gear from the Warehouse.