

PROGRAM DIRECTIVE

Program Directive A-137
Issued March 15, 1983
Revised June 29, 2000

SUBJECT: PPE: Laundering Fire-Resistive Coats (Turnouts)

AFFECTED CODES/

DIRECTIVES: OAR 437-02-1910.156(e)(3), Fire Brigades

PURPOSE: This directive recognizes the variation to the washing cycle requirements referenced in OAR 437-02-1910.156(e)(3)(ii).

BACKGROUND: 1910.156(e)(3) requires the performance, construction, and testing of fire resistive coats be at least equivalent to the requirements of the National Fire Protection Association (NFPA) standard 1971-1975, "Protective Clothing for Fire Fighting" with certain permissible variations from this standard.

- A. Table 3-4.1.1 of NFPA standard 1971 specifies criteria for tearing-strength, color fastness, shrinkage, water absorption, and flame resistance. Paragraph 3-4.1.1 further specifies that this criteria is also applicable after five cycles of laundering and drying in accordance with American Association of Textile Chemists and Colorists (AATCC) Method 96-Test-IV-E.
- B. The commercial laundering and drying cycle specified in AATCC Method 96-Test-IV-E involves mechanical agitation of the materials in a water environment exposure of 203° - 212° F. This is a severe test method which does not reflect actual washing of fire-resistive coats by fire fighters following manufacturers' instructions. The washing of fire-resistive coats by fire fighters when following the manufacturers' instructions consists of spreading the garment out on the engine room floor (or other flat surface) and scrubbing the garment using warm water, mild detergent, and soft brush. This method of washing fire-resistive coats is preferred since it could enhance the longevity of the coats as compared to commercial laundering and drying.

- C. When fire retardant (FR) cotton coats are washed according to AATCC Method 96-IV-E and the attributes of color fastness, shrinkage, and water absorption are evaluated, either no change would be expected, or the values vary by a small degree from those specified in NFPA standard 1971. These minor variations from the criteria specified in NFPA standard 1971 would not jeopardize the wearer's safety. However, if FR cotton coats are washed using manufacturers' instructions (which is the actual method of washing used by fire fighters), the protective integrity of the garments is maintained in accordance with the criteria specified in NFPA standard 1971.

ACTION:

Compliance Officers shall ensure that 1910.156(e)(3) is enforced as follows:

Variations from the NFPA standard 1971 criteria pertaining to color fastness, shrinkage, and water absorption shall be noted as a minimal violation only when fire-resistive coats are washed according to manufacturers' instructions. This technical violation does not reduce the wearer's safety.

**EFFECTIVE
DATE:**

This directive is effective immediately and will remain in effect until cancelled or superseded.