Tentative Interim Amendment

NFPA 1971

Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting

2007 Edition

Reference: 7.14, 8.25
TIA 07-1 (NFPA 1971)
(SC 06-11-10, (11), (12)
(Log No's. 864,865,866)

Pursuant to Section 5 of the NFPA Regulations Governing Committee Projects, the National Fire Protection Association has issued the following Tentative Interim Amendment to NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2007 edition. The TIA was processed by the Technical Committee on Structural and Proximity Fire Fighting Protective Clothing and Equipment, and was issued by the Standards Council on November 3, 2006, with an effective date of November 23, 2006.

A Tentative Interim Amendment is tentative because it has not been processed through the entire standards-making procedures. It is interim because it is effective only between editions of the standard. A TIA automatically becomes a proposal of the proponent for the next edition of the standard; as such, it then is subject to all of the procedures of the standards-making process.

1. Make the following changes in Chapter 7 Performance Requirements for gloves and footwear as follows:

7.7.10 The glove body composite shall be tested for resistance to cut as specified in Section 8.22, Cut Resistance Test, and shall have a distance of blade travel of more than ~~25 mm (1 in.)~~ 20 mm (0.8 in.).

7.7.11 The glove gauntlet or glove wristlet composite, if different from the glove body composite, shall be tested for resistance to cut as specified in Section 8.22, Cut Resistance Test, and shall have a distance of blade travel of more than ~~25 mm (1 in.)~~ 20 mm (0.8 in.).

7.10.8 Footwear uppers shall be tested for resistance to cut as specified in Section 8.22, Cut Resistance Test, and shall have a cut distance resistance of more than ~~25 mm (1 in.)~~ 20 mm (0.8 in.).

2. Revise 7.14.6 to read:

7.14.6 Hoods shall be individually tested for resistance to shrinkage as specified in Section 8.25, Cleaning Shrinkage Resistance Test, and shall not have the measurements made from the top of the hood to the

marks at the back and both sides of the hood exhibit shrinkage of more than 5 percent, and shall have the hood opening meet the requirements specified in 7.14.1.

3. Revise Figure 8.1.6.1 as follows:

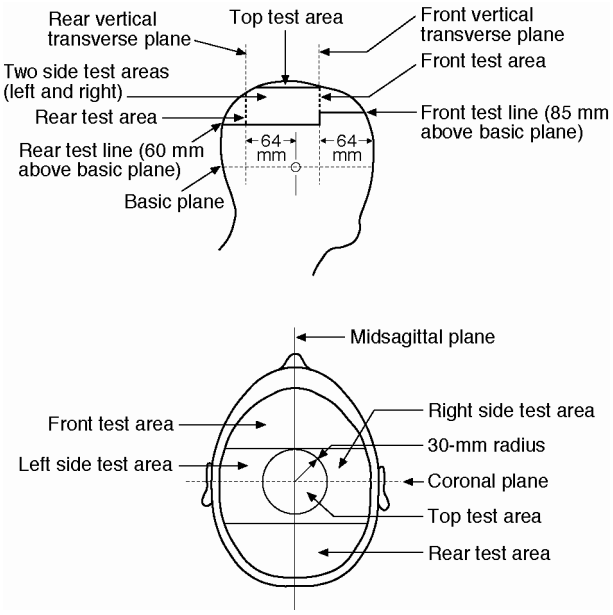

FIGURE 8.1.6.1 Helmet Test Areas and Landmarks.

4. Revise Section 8.16 as follows:

8.16.4.4 The center of mass of the drop assembly shall lie within a cone of 10 degrees included angle about the vertical, with the apex at the point of the targeted impact over the center of the test anvil.

8.16.5.1 A conditioned specimen with face shield/goggle component(s) removed shall be positioned on the headform with the horizontal center plane of the helmet parallel within 5 degrees of the reference plane of the headform and shall be secured to the drop assembly by its retention system so as to maintain this position during the test. No part of the helmet shell shall be cut away to accommodate the test system, and no part of the test system, other than the anvil, shall contact the helmet shell either as mounted or during an impact test.

8.16.5.2 The drop assembly with a helmet attached shall be dropped from a height that yields an impact velocity within 2 percent of 6.0 m/sec (19.7 ft/sec). A means of verifying the impact velocity within 2 percent for each impact shall be incorporated in the test system. The acceleration time duration values, peak acceleration, and impact velocity shall be recorded for each test. Each helmet shall be environmentally conditioned prior to each impact in each of the five impact areas specified in Figure 8.1.6.1. ~~Test series number 1 shall require helmet specimens 5, 6, 8, and 10 to be impacted at the front, rear, and side impact areas at a distance of 68 mm, +13/-0mm (2-1/2 in., +0.5/-0 in.), when measured from the test line to the center of the impact anvil.~~ Test series number 1 shall require helmet specimens 5, 6, 8, and 10 to be impacted at the top, front, rear, and side impact areas. Helmet front, rear, and side targeted impact areas shall be at a distance of 63 mm, +13/-0mm (2-1/2 in., +0.5/-0 in.) above the test line as shown in Figure 8.1.6.1. The headform with mounted helmet shall be rotated such that the targeted helmet impact area is over the center of the anvil.

8.16.5.9* ~~The center of the test anvil shall be no lower than 63 mm (2 1/2 in.) above the test line and shall be the initial point of contact with the shell during impact~~. The initial point of contact of the helmet with the anvil shall not occur on the brim of the helmet.

5. Add new Annex item as follows:

A.8.16.5.9 The test anvil should not be moved from its alignment as specified in 8.16.4.4, except in those circumstances where contact of the brim will first occur for the helmet brim. Every effort should be made to maintain the alignment specified in 8.16.4.4 since significant deviations of this alignment will result in erroneous accelerations measurements.

6. Make the following changes in section 8.22, Cut Resistance Test as follows:

8.22.7 Specific Requirements for Testing Glove Body Materials.

8.22.7.6 Cut resistance testing shall be performed under a load of ~~400 g~~ 300 g.

8.22.9 Specific Requirements for Testing Glove Gauntlets.

8.22.9.8 Cut resistance testing shall be performed under a load of ~~400 g~~ 300 g.

8.22.10 Specific Requirements for Testing Glove Wristlets.

8.22.10.7 Cut resistance testing shall be performed under a load of ~~400 g~~ 300 g.

7. Revise 8.25.9 Specific Requirements for Testing Hoods as follows:

8.25.9.5 After washing, each specimen shall be donned on a nonconductive test headform specified in Figure 8.6.12.3. The specimens shall be pulled to original dimensions and shall be allowed to relax for 1 minute prior to measurement. The dimensions of the face opening shall be measured as specified in 8.47.4.2. Measurements shall also be made from the top of the hood to the marks at the back and both sides of the hood.

8.25.9.6 The percentage change in ~~the hood opening dimensions and~~ the distances between the top of the hood and the marks along the basic plane shall be calculated and reported for each specimen. The average percentage change shall be calculated for each individual dimension for all specimens tested and used to determine pass or fail performance.

8.25.9.7 The percent difference of the hood face opening dimensions before and after laundering shall be determined. The average difference of all hood face opening dimensions shall be calculated and reported.

~~**8.25.9.7**~~ **8.25.9.8** Pass or fail performance shall be based on ~~F~~failure in any one dimension for distances between the top of the hood and the marks along the basic plane, ~~constitutes failure of the entire sample~~ and on the average difference of the hood face opening dimensions.