

NFPA®

1951

Standard on
Protective Ensembles for
Technical Rescue Incidents

2020



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NFPA® 1951

Standard on

Protective Ensembles for Technical Rescue Incidents

2020 Edition

This edition of NFPA 1951, *Standard on Protective Ensembles for Technical Rescue Incidents*, was prepared by the Technical Committee on Special Operations Protective Clothing and Equipment and released by the Correlating Committee on Fire and Emergency Services Protective Clothing and Equipment. It was issued by the Standards Council on November 4, 2019, with an effective date of November 24, 2019, and supersedes all previous editions.

This document has been amended by one or more Tentative Interim Amendments (TIAs) and/or Errata. See “Codes & Standards” at www.nfpa.org for more information.

This edition of NFPA 1951 was approved as an American National Standard on November 24, 2019.

Origin and Development of NFPA 1951

The Technical Committee on Special Operations Protective Clothing and Equipment began work on the first edition of NFPA 1951, *Standard on Protective Ensembles for USAR Operations*, in 1997 to answer the need for personal protective equipment for fire and emergency services personnel operating at technical rescue incidents involving building or structural collapse, vehicle/person extrication, confined space entry, trench/cave-in rescue, rope rescue, and similar incidents. Technical rescue incidents in urban and other nonwilderness locations are complex incidents requiring specially trained personnel and special equipment.

The technical committee developed NFPA 1951 with the goal of establishing personal protection requirements for protective ensembles to reduce the safety risks and health risks associated with exposure of personnel to the hazards of technical rescue during search, rescue, extrication, treatment, recovery, site stabilization, and other mitigation operations at or involving urban search and rescue (USAR) incidents.

The majority of performance criteria in this standard were based on the September 1993 US Fire Administration Study “Protective Clothing and Equipment Needs of Emergency Responders for Urban Search and Rescue Missions” (FA-136, Federal Emergency Management Agency), September 1993. That report documented the protective clothing and equipment needs for emergency responders engaged in technical rescue activities. Input was obtained from an emergency responder user requirements committee and resulted in proposed criteria based on a needs and risk analysis. The US Fire Administration report contains survey results and test data for a number of materials.

The jurisdiction of this technical committee does not include the respiratory protection that is necessary for these operations; the appropriate respiratory protection needs to be addressed by emergency responder organizations.

With the second edition of NFPA 1951, the title was changed to *Standard on Protective Ensembles for Technical Rescue Incidents* to clarify that the standard applies to all emergency services organizations that perform technical rescue incident operations, not just to USAR teams of state or federal governments. The second edition embraced the broader audience of emergency responders for whom these types of protective ensembles are developed to provide protection from the expected hazards common to such operations.



The second edition specified requirements for three different types of technical rescue ensembles:

- (1) A utility ensemble, which provides protection from physical hazards, a basic flame resistance for the ensemble and the elements of the ensemble, and a high level of “breathability” of the ensemble to reduce heat stress for the wearers
- (2) A rescue and recovery ensemble, which provides the physical protection of the utility ensemble and a blood-borne pathogen barrier to protect wearers from body fluid infection from injured or deceased victims
- (3) A CBRN ensemble, which in addition to all the protections of the rescue and recovery ensemble, provides limited protection from chemicals, biological agents, and radiological particulates during incidents involving chemical warfare agents or weapons of mass destruction

It is left to emergency services organizations to select the appropriate ensembles for the protection of their emergency responders based on the expected and anticipated technical rescue incidents to which the organizations will or could respond.

The 2013 (third) edition of NFPA 1951 included a number of editorial changes, new definitions, and updated washing and drying procedures for whole garments, gloves, glove pouches, and CBRN materials. New sections on helmet positioning, glove test areas, and pouch construction were also included. The man-in-simulant test (MIST) in Chapter 8 was completely revised, and a new torque test for protective gloves was added to the end of Chapter 8.

For the 2020 edition, several changes have been made to reflect the performance and safety needs of technical rescue responders and the hazards they face. Based on focused input from 589 survey respondents, as well as task group recommendations and technical committee direction, the technical committee developed a single base garment and ensemble elements and removed the utility, rescue and recovery, and CBRN categories. The flammability and thermal stability requirements remain the same. TPP and conductive heat requirements have been removed and blood-borne pathogen (BBP) protection has been added as an optional requirement specified by the end user. In addition, clarifying language has been added to collars and closure systems so as not to be design restrictive. Several test methods have been removed, others have been brought in line with NFPA 1971, and new tests have been added. Annex material has been added in several places to clarify requirements for end users. Definitions for *manufacturer* and *manufacturing facility* have been added to correlate with other standards in the PPE project.

In Memoriam, 11 September 2001

We pay tribute to the 343 members of FDNY who gave their lives to save civilian victims on 11 September 2001, at the World Trade Center. They are true American heroes in death, but they were also American heroes in life. We will keep them in our memory and in our hearts. They are the embodiment of courage, bravery, and dedication. May they rest in peace.

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Committee Scope: This Committee shall have primary responsibility for documents on the design, performance, testing, and certification of protective clothing and protective equipment manufactured for fire and emergency services organizations and personnel, to protect against exposures encountered during emergency incident operations. This Committee shall also have the primary responsibility for documents on the selection, care, and maintenance of such protective clothing and protective equipment by fire and emergency services organizations and personnel.

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Committee Scope: This Committee shall have primary responsibility for documents on special operations protective clothing and protective equipment, except respiratory equipment, that provides hand, foot, torso, limb, head, and interface protection for fire fighters and other emergency services responders during incidents involving special operations functions including, but not limited to, structural collapse, trench rescue, confined space entry, urban search and rescue, high angle/mountain rescue, vehicular extraction, swift water or flooding rescue, contaminated water diving, and air operations.

This Committee shall also have primary responsibility for documents on station/work uniform garments that are not of themselves primary protective garments but can be combined with a primary protective garment to serve dual or multiple functions.

Additionally, this Committee shall have primary responsibility for documents on the selection, care, and maintenance of special operations protective clothing and equipment by fire and emergency services organizations and personnel.

Contents

Chapter 1 Administration	1951– 8	8.2 Flame Resistance Test 1.	1951– 27
1.1 Scope.	1951– 8	8.3 Heat and Thermal Shrinkage Resistance Test.	1951– 28
1.2 Purpose.	1951– 8	8.4 Total Heat Loss Test.	1951– 31
1.3 Application.	1951– 9	8.5 Tear Resistance Test.	1951– 31
1.4 Units.	1951– 9	8.6 Breaking Strength Test.	1951– 32
Chapter 2 Referenced Publications	1951– 9	8.7 Abrasion Resistance Test 1.	1951– 32
2.1 General.	1951– 9	8.8 Cleaning Shrinkage Resistance Test.	1951– 32
2.2 NFPA Publications.	1951– 9	8.9 Abrasion Resistance Test 2.	1951– 33
2.3 Other Publications.	1951– 9	8.10 Seam Breaking Strength Test.	1951– 34
2.4 References for Extracts in Mandatory Sections. (Reserved)	1951– 10	8.11 Water Absorption Resistance Test.	1951– 34
Chapter 3 Definitions	1951– 10	8.12 Thread Heat Resistance Test.	1951– 35
3.1 General.	1951– 10	8.13 Corrosion Resistance Test.	1951– 35
3.2 NFPA Official Definitions.	1951– 10	8.14 Liquid Penetration Resistance Test.	1951– 35
3.3 General Definitions.	1951– 11	8.15 Viral Penetration Resistance Test.	1951– 36
Chapter 4 Certification	1951– 13	8.16 Force Transmission Test.	1951– 36
4.1 General.	1951– 13	8.17 Physical Penetration Resistance Test.	1951– 37
4.2 Certification Program.	1951– 14	8.18 Electrical Insulation Test.	1951– 37
4.3 Inspection and Testing.	1951– 15	8.19 Suspension System Retention Test.	1951– 38
4.4 Annual Verification of Product Compliance. .	1951– 16	8.20 Retention System Test.	1951– 38
4.5 Manufacturers' Quality Assurance Program. .	1951– 16	8.21 Flame Resistance Test 3.	1951– 39
4.6 Hazards Involving Compliant Product.	1951– 16	8.22 Cut Resistance Test.	1951– 41
4.7 Manufacturers' Investigation of Complaints and Returns.	1951– 17	8.23 Puncture Resistance Test 1.	1951– 42
4.8 Manufacturers' Safety Alert and Product Recall Systems.	1951– 17	8.24 Glove Hand Function Test.	1951– 42
Chapter 5 Labeling and Information	1951– 18	8.25 Grip Test.	1951– 43
5.1 Product Label Requirements.	1951– 18	8.26 Glove Donning Test.	1951– 43
5.2 User Information.	1951– 19	8.27 Flame Resistance Test 4.	1951– 44
Chapter 6 Design Requirements	1951– 19	8.28 Ladder Shank Bend Resistance Test.	1951– 45
6.1 Technical Rescue Protective Ensemble Design Requirements.	1951– 19	8.29 Abrasion Resistance Test 3.	1951– 46
Chapter 7 Performance Requirements	1951– 22	8.30 Slip Resistance Test.	1951– 46
7.1 Technical Rescue Protective Ensemble Performance Requirements.	1951– 22	8.31 Electrical Insulation Test 2.	1951– 46
7.2 Optional Requirements for Blood-Borne Pathogen Protective Technical Rescue Garments.	1951– 24	8.32 Eyelet and Stud Post Attachment Test.	1951– 47
Chapter 8 Test Methods	1951– 25	8.33 Label Durability and Legibility Test.	1951– 47
8.1 Sample Preparation Procedures.	1951– 25	8.34 Burst Strength Test.	1951– 48
		8.35 Torque Test.	1951– 48
		8.36 Fastener Tape Strength Tests.	1951– 49
		8.37 Offset Force Transmission Test.	1951– 49
		Annex A Explanatory Material	1951– 50
		Annex B Informational References	1951– 54
		Index	1951– 56

NFPA 1951

Standard on

Protective Ensembles for Technical Rescue Incidents

2020 Edition

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Information on referenced and extracted publications can be found in Chapter 2 and Annex B.

Chapter 1 Administration

1.1* Scope.

1.1.1 This standard shall specify the minimum design, performance, testing, and certification requirements for **technical rescue** protective ensembles for use by emergency services personnel during technical rescue incidents.

- Δ 1.1.2 This standard shall also specify the minimum requirements for the various elements of the **technical rescue** protective ensembles, including garments, helmets, gloves, footwear, and eye and face protection devices.

- Δ 1.1.3 This standard shall not specify requirements for respiratory protection equipment for technical rescue protective ensembles; those requirements are specified by NIOSH in 42 CFR 84 and by OSHA in 29 CFR 1910.134.

1.1.4 This standard shall not establish criteria for water or **wildland** operations.

1.1.5* This standard shall not specify requirements for any visibility markings.

- 1.1.6 This standard shall not establish criteria for protection for any **firefighting** operations or hazardous materials emergencies.

1.1.7* This standard shall not specify requirements for accessories that could be attached to any ensemble or ensemble element but are not required for the ensemble or element to meet the requirements of this standard.

1.1.8 Certification of technical rescue protective ensembles or ensemble elements to the requirements of this standard shall not preclude certification to additional applicable standards where the protective ensemble or ensemble elements meet all the applicable requirements of the other standards.

1.1.9 This standard shall not be construed as addressing all the safety concerns associated with the use of compliant protective ensembles or elements. It shall be the responsibility of the persons and organizations that use compliant protective ensembles or elements to establish safety and health practices and to determine the applicability of regulatory limitations prior to use.

1.1.10 This standard shall not be construed as addressing all the safety concerns, if any, associated with the use of this standard by testing facilities. It shall be the responsibility of the persons and organizations that use this standard to conduct testing of protective ensembles or elements to establish safety and health practices and to determine the applicability of regulatory limitations prior to using this standard for any designing, manufacturing, and testing.

1.1.11 Nothing herein shall restrict any jurisdiction or manufacturer from exceeding these minimum requirements.

1.2* Purpose.

1.2.1* The purpose of this standard shall be to establish minimum levels of protection for emergency services personnel assigned to or involved in search, rescue, treatment, decontamination, recovery, site stabilization, and similar operations at technical rescue incidents.

- Δ 1.2.2 To achieve that purpose, this standard shall establish requirements for ensembles and their associated ensemble elements designed to provide protection to emergency response personnel during technical rescue incidents.

1.2.2.1* This standard shall establish limited protection for operational settings where exposure to physical and **flame** hazards are expected.

- 1.2.2.2* This standard shall also establish optional requirements for operational settings where exposure to **blood-borne** pathogen hazards are expected.

1.2.3* Controlled laboratory tests used to determine compliance with the performance requirements of this standard shall not be deemed as establishing performance levels for all situations to which personnel can be exposed.

1.2.4 This standard is not intended to be utilized as a detailed manufacturing or purchase specification but shall be permitted to be referenced in purchase specifications as minimum requirements.

1.3 Application.

1.3.1 This standard shall apply to the design, manufacturing, testing, and certification of new **technical rescue** protective ensembles and new ensemble elements.

1.3.2 This edition of NFPA 1951 shall not apply to urban search and rescue (USAR) and **technical rescue** protective ensembles and ensemble elements manufactured and certified to previous editions of this standard.

1.3.3 This standard shall not apply to **technical rescue** protective ensembles and ensemble elements manufactured to the requirements of any other organization's standards.

1.3.4 This standard shall not apply to protective ensembles or protective ensemble elements for personnel assigned to or involved in search, rescue, recovery, or site stabilization operations that require the functional capabilities for water or **wild-land** incidents.

1.3.5 The requirements of this standard shall not apply to accessories that could be attached to any element of technical rescue ensembles. (See A.1.1.7.)

1.3.6* This standard shall not apply to protection for any fire-fighting operations or hazardous materials emergencies.

1.3.7 This standard shall not apply to the use of **technical rescue** protective ensembles and ensemble elements.

1.3.8* The requirements of this standard shall not apply to any accessories that could be attached to the product but that are not necessary for the product to meet the requirements of this standard.

1.4* Units.

1.4.1 In this standard, values for measurement are followed by an equivalent in parentheses, but only the first stated value shall be regarded as the requirement.

1.4.2 Equivalent values in parentheses shall not be considered as the requirement, because these values are approximate.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this standard and shall be considered part of the requirements of this document.

Δ 2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 1855, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Technical Rescue Incidents*, 2018 edition.

Δ 2.3 Other Publications.

2.3.1 AATCC Publications. American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.

AATCC 42, *Water Resistance: Impact Penetration Test*, 2017.

AATCC 61, *Colorfastness to Laundering: Accelerated*, 2013.

AATCC 135, *Dimensional Changes in Automatic Home Laundering of Woven and Knit Fabrics*, 2004.

2.3.2 ANSI Publications. American National Standards Institute, Inc., 25 West 43rd Street, 4th floor, New York, NY 10036.

ANSI/ISEA Z87.1, *Occupational and Educational Personal Eye and Face Protection Devices*, 2015.

ANSI/ISEA Z89.1, *American National Standard for Industrial Head Protection*, 2014.

Δ 2.3.3 ASTM Publications. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM B117, *Standard Practice for Operating Salt Spray (Fog) Apparatus*, 2016.

ASTM D471, *Standard Test Method for Rubber Property — Effect of Liquids*, 2016a.

ASTM D1683/D1683M, *Standard Test Method for Failure in Sewn Seams of Woven Fabrics*, 2017e1.

ASTM D3787, *Standard Test Method for Bursting Strength of Textiles — Constant-Rate-of-Traverse (CRT) Ball Burst Test*, 2016.

ASTM D3884, *Standard Guide for Abrasion Resistance of Textile Fabrics (Rotary Platform, Double-Head Method)*, 2017.

ASTM D3885, *Standard Test Method for Abrasion Resistance of Textile Fabrics (Flexing and Abrasion Method)*, 2015.

ASTM D3940, *Standard Test Method for Bursting Strength (Load) and Elongation of Sewn Seams of Knit or Woven Stretch Textile Fabrics*, 1983.

ASTM D4966, *Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)*, 2016.

ASTM D5034, *Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)*, 2017.

ASTM D5035, *Standard Test Method for Breaking Force and Elongation of Textile Fabrics (Strip Method)*, 2015.

ASTM D5169, *Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners*, 2015.

ASTM D5170, *Standard Test Method for Peel Strength ("T" Method) of Hook and Loop Touch Fasteners*, 2015.

ASTM D5587/D5587M, *Standard Test Method for Tearing Strength of Fabrics by Trapezoid Procedure*, 2016.

ASTM D6413/D6413M, *Standard Test Method for Flame Resistance of Textiles (Vertical Test)*, 2015.

ASTM D7138, *Standard Test Method to Determine Melting Temperature of Synthetic Fibers*, 2016.

ASTM F903, *Standard Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Liquids*, 2017.

ASTM F1342/F1342M, *Standard Test Method for Protective Clothing Material Resistance to Puncture*, 2013e1.

ASTM F1671/F1671M, *Standard Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Blood-Borne Pathogens Using Phi-X174 Bacteriophage as a Test System*, 2013.

ASTM F1790, *Test Methods for Measuring Cut Resistance of Materials Used in Protective Clothing*, 2005.

ASTM F1868, *Standard Test Method for Thermal and Evaporative Resistance of Clothing Materials using a Sweating Hot Plate*, 2017.

ASTM F2010/F2010M, *Standard Test Method for Evaluation of Glove Effects on Wearer Hand Dexterity Using a Modified Pegboard Test*, 2010.

ASTM F2412, *Standard Test Methods for Foot Protection*, 2018a.

ASTM F2413, *Standard Specification for Performance Requirements for Protective (Safety) Toe Cap Footwear*, 2018.

ASTM F2913, *Standard Test Method for Measuring the Coefficient of Friction for Evaluation of Slip Performance of Footwear and Test Surfaces/Flooring Using a Whole Shoe Tester*, 2019.

ASTM F2961, *Standard Test Method for Characterizing Gripping Performance of Gloves Using a Torque Meter*, 2015.

2.3.4 CENELEC Publications. CENELEC, European Committee for Electrotechnical Standardization, CEN-CENELEC Management Centre, Avenue Marnix 17, 4th floor, B-1000, Brussels.

CEN EN 16473, *Firefighter Helmets — Helmets for Technical Rescue*, 2014.

EN 13087-8, *Protective helmets — Test methods — Part 8: Electrical properties*, 2005.

2.3.5 AAFA Publications. American Apparel and Footwear Association, 1601 North Kent Street, Suite 1200, Arlington, VA 22209.

FIA Standard 1209, *Whole Shoe Flex*, 1984.

2.3.6 ISO Publications. International Organization for Standardization, ISO Central Secretariat, BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland.

ISO Guide 27, *Guidelines for corrective action to be taken by a certification body in the event of misuse of its mark of conformity*, 1983.

ISO 4649, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using rotating cylindrical drum device*, 2017.

ISO 9001, *Quality management systems — Requirements*, 2015.

ISO 17011, *Conformity assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*, 2017.

ISO/IEC 17021, *Conformity assessment — Requirements for bodies providing audit and certification of management systems — Part 1: Requirements*, 2015.

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*, 2017.

ISO/IEC 17065, *Conformity assessment — Requirements for bodies certifying products, processes, and services*, 2012.

2.3.7 US Department of Defense Publications. Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

A-A-55126B, *Commercial Item Description: Fastener Tapes, Hook and Loop, Synthetic*, 2006.

A-A-55634, *Commercial Item Description: Zippers (Fasteners, Slide Interlocking)*, 2004.

2.3.8 US Government Publications. US Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 29, Code of Federal Regulations, Part 1910.132, “Personal Protective Equipment: General Requirements.”

Title 29, Code of Federal Regulations, Part 1910.134, “Respiratory Protection Standard.”

Title 42, Code of Federal Regulations, Part 84.

2.3.9 Other Publications.

Merriam-Webster’s Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

2.4 References for Extracts in Mandatory Sections. (Reserved)

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster’s Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction. An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.4* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.5 Shall. Indicates a mandatory requirement.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.2.7 Standard. An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational

note, or other means as permitted in the NFPA Manuals of Style. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

3.3 General Definitions.

3.3.1 Arch. The bottom curve of the foot, from the heel to the ball.

3.3.2 Barrier Layer. The component of the ensemble that is intended to provide protection from hazardous liquids.

3.3.3 Biological Agents. Biological materials that are capable of causing acute disease or long-term damage to the human body.

3.3.4 Body Fluid–Borne Pathogen. An infectious bacterium or virus carried in human, animal, or clinical body fluids, organs, or tissue.

3.3.5 Body Fluids. Fluids that are produced by the body, including, but not limited to, blood, semen, mucus, feces, urine, vaginal secretions, breast milk, amniotic fluid, cerebrospinal fluid, synovial fluid, and pericardial fluid.

3.3.6 Brim. A part of the shell of the helmet extending around the entire circumference of the helmet.

3.3.7 Cargo Pockets. Pockets located on the protective garment exterior.

3.3.8 CBRN. An abbreviation for chemicals, biological agents, and radiological particulate hazards.

3.3.9 Certification Organization. An independent, third-party organization that determines product compliance with the requirements of this standard with a labeling/listing/follow-up program.

3.3.10 Certification/Certified. A system whereby a certification organization determines that a manufacturer has demonstrated the ability to produce a product that complies with the requirements of this standard, authorizes the manufacturer to use a label on listed products that comply with the requirements of this standard, and establishes a follow-up program conducted by the certification organization as a check on the methods the manufacturer uses to determine continued compliance of labeled and listed products with the requirements of this standard.

3.3.11 Coat. See 3.3.92, Technical Rescue Protective Garments.

3.3.12 Collar. The portion of a coat or coverall that encircles the neck.

3.3.13 Collar Lining. That part of collar fabric composite that is next to the skin when the collar is closed in the raised position.

3.3.14 Compliance/Compliant. Meeting or exceeding all applicable requirements of this standard.

3.3.15 Component(s). Any material, part, or subassembly used in the construction of the compliant product.

3.3.16 Composite. The layer or layers of materials or components.

3.3.17 Coverall. See 3.3.92, Technical Rescue Protective Garments.

3.3.18 Decontamination. The act of removing contaminants from protective clothing and equipment by a physical, chemical, or combined process.

3.3.19 Drip. To run or fall in drops or blobs.

3.3.20 Element(s). See 3.3.22, Ensemble Elements.

3.3.21 Energy Absorbing System. Materials or systems used to attenuate impact energy.

3.3.22 Ensemble Elements. The certified parts of an ensemble that provide protection to the upper and lower torso, arms, legs, head, hands, and feet.

3.3.23* Flame Resistance. The property of a material whereby combustion is prevented, terminated, or inhibited following the application of a flaming or nonflaming source of ignition, with or without subsequent removal of the ignition source.

3.3.24 Flammable or Explosive Atmospheres. Atmospheres containing solids, liquids, vapors, or gases at concentrations that will burn or explode if ignited.

3.3.25 Flash Fire. A fire that rapidly spreads through a diffuse fuel, such as a dust, gas, or the vapors of an ignitable liquid, without the production of damaging pressure.

3.3.26 Follow-Up Program. The sampling, inspections, tests, or other measures conducted by the certification organization on a periodic basis to determine the continued compliance of labeled and listed products that are being produced by the manufacturer to the requirements of this standard.

3.3.27 Footwear. See 3.3.91, Technical Rescue Protective Footwear.

3.3.28 Footwear Upper. The portion of the protective footwear element or item that includes, but is not limited to, the toe, vamp, quarter, shaft, collar, and throat, but not including the sole with heel, puncture-resistant device, and insole.

3.3.29 Garment. See 3.3.92, Technical Rescue Protective Garments.

3.3.30 Garment Closure. The garment component designed and configured to allow the wearer to don (put on) and doff (take off) the garment.

3.3.31 Garment Closure Assembly. The combination of the garment closure and the seam attaching the garment closure to the garment, including any protective flap or cover.

3.3.32 Garment Material. The primary protective material(s) used in the construction of garments.

3.3.33 Gauntlet. An interface component of the protective glove element that provides limited protection to the coat/glove interface area.

3.3.34 Glove. See 3.3.93, Technical Rescue Protective Gloves.

3.3.35 Glove Body. The part of the glove that extends from the tip of the fingers to 25 mm (1 in.) beyond the wrist crease.

3.3.36 Glove Gauntlet. See 3.3.33, Gauntlet.

3.3.37 Glove Liner. The innermost component of the glove body composite that comes in contact with the wearer's skin.

3.3.38 Goggles. The component that provides protection to the wearer's eyes and a portion of the wearer's face.

3.3.39* Gusset. The part of the protective footwear that is a relatively flexible material joining the footwear upper (quarter) and the tongue, which is intended to provide expansion of the footwear front to enable donning of the footwear while maintaining continuous moisture integrity of the footwear.

3.3.40 Hardware. Nonfabric components of the protective clothing or equipment, including, but not limited to, those made of metal or plastic.

3.3.41 Headband. The portion of the helmet suspension that encircles the head.

3.3.42 Headform. A device that simulates the configuration of the human head.

▲ **3.3.43 Helmet.** See 3.3.95, Technical Rescue Protective Helmets.

3.3.44 Helmet Positioning Index. The distance, as specified by the manufacturer, from the lowest point of the brow opening at the lateral midpoint of the helmet to the basic plane of the headform when the helmet is firmly positioned on the headform.

• **3.3.45 Insole.** The inner component of the footwear upon which the foot rests.

3.3.46 Interface Area. An area of the body where the protective garments, helmet, gloves, footwear, or SCBA facepiece meet. Interface areas include, but are not limited to, the coat/helmet/SCBA facepiece area, the coat/trouser area, the coat/glove area, and the trouser/footwear area.

3.3.47* Interface Component(s). Any material, part, or subassembly used in the construction of the compliant product that provides limited protection to interface areas.

3.3.48 Ladder Shank. See 3.3.82, Shank.

3.3.49 Liquid-Borne Pathogen. See 3.3.4, Body Fluid-Borne Pathogen.

3.3.50 Major A Seam. See 3.3.79.1.

3.3.51 Major B Seam. See 3.3.79.2.

▲ **3.3.52 Manufacturer.** The entity that assumes the liability for the compliant product.

N **3.3.53 Manufacturing Facility.** A facility that produces, assembles, labels, or performs final inspection of a compliant product.

3.3.54 Melt. A response to heat by a material resulting in evidence of flowing or dripping.

3.3.55 Midsagittal Plane. The anatomical plane perpendicular to the basic plane and containing the midpoint of the line connecting the notches of the right and left inferior orbital ridges and the midpoint of the line connecting the superior rims of the right and left auditory meatus.

3.3.56 Minor Seam. See 3.3.79.3.

3.3.57 Model. The collective term used to identify a group of individual elements of the same basic design and components from a single manufacturer produced by the same manufacturer

and quality assurance procedures that are covered by the same certification.

3.3.58 Nape Device. A component used to aid in helmet retention.

3.3.59 Operations.

3.3.59.1 Search Operations. Any land-based operations involving the search for victims or body recovery.

3.3.59.2 Technical Rescue Incidents. Those activities directed at locating endangered persons, removing endangered persons from danger, treating the injured at an emergency incident, and providing transport to an appropriate health care facility.

• **3.3.60 Outer Shell.** The outermost component of an element or item not including trim, hardware, reinforcing material, pockets, wristlet material, accessories, fittings, or suspension systems.

3.3.61 Package. The wrapping or enclosure directly containing the technical rescue ensembles or element.

3.3.62 Product. The compliant protective ensemble or the compliant elements and the compliant interface elements of the protective ensemble.

3.3.63* Product Label. A marking provided by the manufacturer for each compliant product containing compliant statements, certification statements, manufacturer and model information, or similar data.

▲ **3.3.64 Protective Clothing.** See 3.3.90, Technical Rescue Protective Ensembles.

▲ **3.3.65 Protective Coat.** See 3.3.92, Technical Rescue Protective Garments.

▲ **3.3.66 Protective Coverall.** See 3.3.92, Technical Rescue Protective Garments.

▲ **3.3.67 Protective Ensemble.** See 3.3.90, Technical Rescue Protective Ensembles.

▲ **3.3.68 Protective Footwear.** See 3.3.91, Technical Rescue Protective Footwear.

▲ **3.3.69 Protective Garment.** See 3.3.92, Technical Rescue Protective Garments.

▲ **3.3.70 Protective Glove.** See 3.3.93, Technical Rescue Protective Gloves.

▲ **3.3.71 Protective Goggle.** See 3.3.94, Technical Rescue Protective Goggles.

▲ **3.3.72 Protective Helmet.** See 3.3.95, Technical Rescue Protective Helmets.

▲ **3.3.73 Protective Trouser.** See 3.3.92, Technical Rescue Protective Garments.

3.3.74 Puncture-Resistant Device. A reinforcement to the bottom of protective footwear that is designed to provide puncture resistance.

• **3.3.75 Recovery.** An operation involving the retrieval of either (1) the remains of a deceased victim or (2) property, but in no case a living person.

3.3.76 Rescue. Those operations directed at locating and removing endangered persons and treating the injured at an emergency incident.

• **3.3.77 Retention System.** The complete assembly by which the helmet is retained in position on the head.

3.3.78 Sample. The ensemble, element, item, component, or composite that is conditioned for testing. (See also 3.3.85, *Specimen*.)

3.3.79 Seam. Any permanent attachment of two or more materials, in a line formed by joining the separate material pieces.

3.3.79.1 Major A Seam. Outermost layer seam assemblies where rupture could reduce the protection of the garment by exposing the garment's inner layers.

3.3.79.2 Major B Seam. Inner layer seam assemblies where rupture could reduce the protection of the garment by exposing the next layer of the garment, the wearer's station/work uniform, other clothing, or skin.

3.3.79.3 Minor Seam. Remaining seam assemblies that are not classified as Major A or Major B seams.

3.3.80 Search. Land-based efforts to find victims or recover bodies.

3.3.81 Separate. A material response evidenced by splitting or delaminating.

3.3.82 Shank. The component of footwear that provides additional support to the instep.

3.3.83 Shell. See 3.3.60, Outer Shell.

3.3.84 Site Stabilization. Those activities directed at mitigating the dangerous elements of an emergency situation.

3.3.85 Specimen. The conditioned element, item, component, or composite that is tested; specimens are taken from samples. (See also 3.3.78, *Sample*.)

3.3.86 Strap.

3.3.86.1 Chin Strap. An adjustable strap for the helmet that fits under the chin to help secure the helmet to the head.

3.3.86.2 Crown Straps. The part of the helmet suspension that passes over the head.

3.3.87 Suspension. The energy attenuating system of the helmet that is made up of the headband and crown strap.

3.3.88 Sweatband. That part of a helmet headband, either integral or attached, that comes in contact with the wearer's forehead.

3.3.89 Technical Rescue Incidents. Complex rescue incidents requiring specially trained personnel and special equipment to complete the mission.

Δ **3.3.90 Technical Rescue Protective Ensembles.** A protective ensemble that includes but is not limited to garments, helmets, goggles, gloves, and footwear.

Δ **3.3.91 Technical Rescue Protective Footwear.** The certified element of the protective ensemble that provides protection to the foot, ankle, and lower leg.

3.3.92 Technical Rescue Protective Garments. The coat, trouser, and coverall certified elements of the protective ensemble that provide protection to the upper and lower torso, arms, and legs.

3.3.93 Technical Rescue Protective Gloves. The certified element of the protective ensemble that provides protection to the hand and wrist.

3.3.94 Technical Rescue Protective Goggles. The certified element of the protective ensemble that provides partial protection to the face and eyes.

Δ **3.3.95 Technical Rescue Protective Helmets.** The certified element of the protective ensemble that provides protection to the head.

3.3.96 Textile Fabric. A planar structure consisting of yarns or fibers.

3.3.97 Toecap. A reinforcement to the toe area of footwear designed to protect the toes from impact and compression.

3.3.98* Tongue. The part of the protective footwear that is provided for protective footwear with a closure that extends from the vamp to the top line of the footwear between sides of the footwear upper and is exposed to the exterior environment when the footwear is correctly donned.

3.3.99 Top Line. The top edge of the protective footwear that includes the tongue, gusset, quarter, collar, and shaft.

3.3.100 Torso.

3.3.100.1 Lower Torso. The area of the body trunk below the waist, excluding the legs, ankles and feet.

3.3.100.2 Upper Torso. The area of body trunk above the waist and extending to the shoulder, excluding the arms, wrists, and hands.

• **3.3.101 Treatment.** The provision of medical first aid at the incident.

Δ **3.3.102 Trouser.** See 3.3.92, Technical Rescue Protective Garments.

• **3.3.103 Wear Surface.** The bottom of the footwear sole, including the heel.

N **3.3.104 Winter Liner.** An optional component layer that provides added insulation against cold.

3.3.105 Wristlet. The interface component of the protective element or item that provides limited protection to the coat/glove interface area.

Chapter 4 Certification

4.1 General.

4.1.1 The process of certification for protective ensembles and ensemble elements as being compliant with NFPA 1951 shall meet the requirements of Section 4.1, General; Section 4.2, Certification Program; Section 4.3, Inspection and Testing; Section 4.4, Annual Verification of Product Compliance; Section 4.5, Manufacturers' Quality Assurance Program; Section 4.6, Hazards Involving Compliant Product; Section 4.7, Manufacturers' Investigation of Complaints and Returns; and

Section 4.8, Manufacturers' Safety Alert and Product Recall Systems.

4.1.2 All compliant protective ensembles and ensemble elements that are labeled as being compliant with this standard shall meet or exceed all applicable requirements specified in this standard and shall be certified.

• **4.1.3** All certification shall be performed by a certification organization that meets at least the requirements specified in Section 4.2, Certification Program, and that is accredited for personal protective equipment in accordance with ISO/IEC 17065, *Conformity assessment — Requirements for bodies certifying products, processes, and services*. The accreditation shall be issued by an accreditation body operating in accordance with ISO 17011, *Conformity Assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*.

4.1.4* Manufacturers shall not claim compliance with portions or segments of the requirements of this standard and shall not use the NFPA name or the name or identification of this standard, NFPA 1951, in any statements about their respective product(s) unless the product(s) is certified as compliant to this standard.

4.1.5 All compliant protective ensembles and ensemble elements shall be labeled.

4.1.6 All compliant protective ensembles and ensemble elements shall be listed by the certification organization. The listing shall uniquely identify the certified product, for example, by style, model number, or part number.

4.1.7 All compliant protective ensembles and ensemble elements shall also have a product label that meets the requirements specified in Section 5.1, Product Label Requirements.

4.1.8 The certification organization's label, symbol, or identifying mark shall be attached to the product label, shall be part of the product label, or shall be immediately adjacent to the product label.

4.1.9 The certification organization shall not issue any new certifications to the 2013 edition of this standard on or after the NFPA effective date for the 2020 edition.

4.1.10 The certification organization shall not permit any manufacturer to continue to label any protective ensembles or ensemble elements that are certified as compliant with the 2013 edition of this standard on or after the effective date for the 2020 edition plus 12 months.

4.1.11 The certification organization shall require manufacturers to remove all certification labels and product labels indicating compliance with the 2013 edition of this standard from all protective ensembles and ensemble elements that are under the control of the manufacturer on the effective date of the 2020 edition plus 12 months, and the certification organization shall verify that this action is taken.

4.2 Certification Program.

4.2.1* The certification organization shall not be owned or controlled by manufacturers or vendors of the product being certified.

4.2.2 The certification organization shall be primarily engaged in certification work and shall not have a monetary interest in the product's ultimate profitability.

Δ **4.2.3** The certification organization shall be accredited for personal protective equipment in accordance with ISO/IEC 17065, *Conformity assessment — Requirements for bodies certifying products, processes, and services*. The accreditation shall be issued by an accreditation body operating in accordance with ISO 17011, *Conformity Assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*.

4.2.4 The certification organization shall refuse to certify products to this standard that do not comply with all applicable requirements of this standard.

4.2.5* The contractual provisions between the certification organization and the manufacturer shall specify that certification is contingent on compliance with all applicable requirements of this standard.

4.2.5.1 The certification organization shall not offer or confer any conditional, temporary, or partial certifications.

4.2.5.2 Manufacturers shall not be authorized to use any label or reference to the certification organization on products that are not compliant with all applicable requirements of this standard.

4.2.6* The certification organization shall have laboratory facilities and equipment available for conducting proper tests to determine product compliance.

4.2.6.1 The certification organization laboratory facilities shall have a program in place and functioning for calibration of all instruments, and procedures shall be in use to ensure proper control of all testing.

4.2.6.2 The certification organization laboratory facilities shall follow good practice regarding the use of laboratory manuals, form data sheets, documented calibration and calibration routines, performance verification, proficiency testing, and staff qualification and training programs.

4.2.7 The certification organization shall require the manufacturer to establish and maintain a quality assurance program that meets the requirements of Section 4.5, Manufacturer's Quality Assurance Program.

4.2.7.1* The certification organization shall require the manufacturer to have a product recall system specified in Section 4.8, Manufacturers' Safety Alert and Product Recall Systems, as part of the manufacturer's quality assurance program.

4.2.7.2 The certification organization shall audit the manufacturer's quality assurance program to ensure that the quality assurance program provides continued product compliance with this standard.

4.2.8 The certification organization and the manufacturer shall evaluate any changes affecting the form, fit, or function of the compliant product to determine its continued certification to this standard.

4.2.9* The certification organization shall have a follow-up inspection program of the manufacturer's manufacturing facilities of the compliant product with at least two random and unannounced visits per 12-month period to verify the product's continued compliance. Where portions of the production process are carried out by multiple facilities, the certification organization shall determine the appropriate follow-up program according to which facility or facilities most closely meet the

definition of manufacturing facility. (See 3.3.53, *Manufacturing Facility*.)

4.2.9.1 As part of the follow-up inspection program, the certification organization shall select sample compliant product at random from the manufacturing facility's production line, from the manufacturer's or manufacturing facility's in-house stock, or from the open market.

Δ 4.2.9.2 The sample product shall be evaluated by the certification organization to verify the product's continued compliance to assure that the materials, components, and manufacturing quality assurance systems are consistent with the materials, components, and manufacturing quality assurance that were inspected and tested by the certification organization during certification and recertification.

4.2.9.3 The certification organization shall be permitted to conduct specific testing to verify the products' continued compliance.

4.2.9.4 For products, components, and materials where prior testing, judgment, and experience of the certification organization have shown the result to be in jeopardy of not complying with this standard, the certification organization shall conduct more frequent testing of the sample product, components, and materials acquired in accordance with 4.2.9.1 against the applicable requirements of this standard.

4.2.10 The certification organization shall have in place a series of procedures, as specified in Section 4.6, Hazards Involving Compliant Product, that address report(s) of situation(s) in which a compliant product is subsequently found to be hazardous.

4.2.11 The certification organization's operating procedures shall provide a mechanism for the manufacturer to appeal decisions. The procedures shall include the presentation of information from both sides of a controversy to a designated appeals panel.

4.2.12 The certification organization shall be in a position to use legal means to protect the integrity of its name and label. The name and label shall be registered and legally defended.

4.3 Inspection and Testing.

4.3.1 For both initial certification and recertification of protective ensembles and ensemble elements, the certification organization shall conduct both inspection and testing as specified in this section.

4.3.2 All inspections, evaluations, conditioning, and testing for certification or for recertification shall be conducted by a certification organization's testing laboratory that is accredited in accordance with the requirements of ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*.

4.3.2.1 The certification organization's testing laboratory's scope of accreditation to ISO 17025, *General requirements for the competence of testing and calibration laboratories*, shall encompass testing of personal protective equipment.

Δ 4.3.2.2 The accreditation of a certification organization's testing laboratory shall be issued by an accreditation body operating in accordance with ISO 17011, *Conformity Assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*.

4.3.3 A certification organization shall be permitted to utilize conditioning and testing results conducted by a product or component manufacturer for certification or recertification, provided the manufacturer's testing laboratory meets the requirements specified in 4.3.3.1 through 4.3.3.5.

4.3.3.1 The manufacturer's testing laboratory shall be accredited in accordance with the requirements of ISO 17025, *General requirements for the competence of testing and calibration laboratories*.

4.3.3.2 The manufacturer's testing laboratory's scope of accreditation to ISO 17025, *General requirements for the competence of testing and calibration laboratories*, shall encompass testing of personal protective equipment.

Δ 4.3.3.3 The accreditation of a manufacturer's testing laboratory shall be issued by an accreditation body operating in accordance with ISO 17011, *Conformity Assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*.

4.3.3.4 The certification organization shall approve the manufacturer's testing laboratory.

4.3.3.5 The certification organization shall determine the level of supervision and witnessing of the conditioning and testing for certification or recertification conducted at the manufacturer's testing laboratory.

4.3.4 Sampling levels for testing and inspection shall be established by the certification organization and the manufacturer to ensure a reasonable and acceptable reliability at a reasonable and acceptable confidence level that products certified to this standard are compliant, unless such sampling levels are specified herein.

4.3.5 Inspection by the certification organization shall include a review of all product labels to ensure that all required label attachments, compliance statements, certification statements, and other product information are at least as specified for the protective ensemble and ensemble elements in Section 5.1, Product Label Requirements.

4.3.6 Inspection by the certification organization shall include an evaluation of any symbols and pictorial representations used on product labels or in user information, as permitted by 5.1.5, to ensure that the symbols are clearly explained in the product's user information package.

4.3.7 Inspection by the certification organization shall include a review of the user information required by Section 5.2 to ensure that the information has been developed and is available.

4.3.8 Inspection by the certification organization for determining compliance with the design requirements specified in Chapter 6 shall be performed on whole or complete products.

4.3.9 Testing to determine product compliance with the performance requirements specified in Chapter 7 shall be conducted by the certification organization in accordance with the specified testing requirements of Chapter 8.

4.3.9.1 Testing shall be performed on specimens representative of materials and components used in the actual construction of the protective ensemble and ensemble element.

4.3.9.2 The certification organization also shall be permitted to use sample materials cut from a representative product.

4.3.10 The certification organization shall accept from the manufacturer, for evaluation and testing for certification, only product or product components that are the same in every respect as the actual final product or product component.

4.3.11 The certification organization shall not allow any modifications, pretreatment, conditioning, or other such special processes of the product or any product component prior to the product's submission for evaluation and testing by the certification organization.

4.3.12 The certification organization shall not allow the substitution, repair, or modification, other than as specifically permitted herein, of any product or any product component during testing.

4.3.13 The certification organization shall not allow test specimens that have been conditioned and tested for one method to be reconditioned and tested for another test method unless specifically permitted in the test method.

4.3.14 The certification organization shall test ensemble elements with the specific ensemble(s) with which they are to be certified.

4.3.15 Any change in the design, construction, or material of a compliant product shall necessitate new inspection and testing to verify compliance to all applicable requirements of this standard that the certification organization determines can be affected by such change. This recertification shall be conducted before labeling the modified product as being compliant with this standard.

4.3.16 The manufacturer shall maintain all design and performance inspection and test data from the certification organization used in the certification of the manufacturer's compliant product. The manufacturer shall provide such data, upon request, to the purchaser or authority having jurisdiction.

4.4 Annual Verification of Product Compliance.

4.4.1 All individual elements of the protective ensemble that are labeled as being compliant with this standard shall undergo recertification on an annual basis. This recertification shall include the following:

- (1) Inspection and evaluation to all design requirements as required by this standard on all manufacturer models and components
- (2) Testing to all performance requirements as required by this standard on all manufacturer models and components within the following protocol:
 - (a) When a test method incorporates testing both before and after the laundering precondition specified in 8.1.3 and the test generates quantitative results, recertification testing shall be limited to the conditioning that yielded the worst case test result during the initial certification for the model or component.
 - (b) Where a test method incorporates testing both before and after the laundering precondition specified in 8.1.3 and the test generates nonquantitative results, recertifications shall be limited to a single conditioning procedure in any given year. Subsequent annual recertifications shall cycle through the remaining conditioning procedures to ensure that all required conditionings are included over time.

- (c) Where a test method requires the testing on three specimens, a minimum of one specimen shall be tested for annual recertification.
- (d) Where a test method requires the testing of five or more specimens, a minimum of two specimens shall be tested for annual recertification.

4.4.2 Samples of manufacturer models and components for recertification acquired from the manufacturer or component supplier during random and unannounced visits as part of the follow-up inspection program in accordance with 4.2.9 shall be permitted to be used toward annual recertification.

4.4.3 The manufacturer shall maintain all design and performance inspection and test data from the certification organization used in the recertification of manufacturer models and components. The manufacturer shall provide such data, upon request, to the purchaser or authority having jurisdiction.

4.5* Manufacturers' Quality Assurance Program.

4.5.1 The manufacturer shall provide and operate a quality assurance program that meets the requirements of this section and that includes a product recall system as specified in 4.2.7.1, and Section 4.8, Manufacturers' Safety Alert and Product Recall Systems.

4.5.2 The operation of the quality assurance program shall evaluate and test compliant product production to the requirements of this standard to assure production remains in compliance.

4.5.3 All the following entities shall be either registered to ISO 9001, *Quality management systems — Requirements*, or listed as a covered location under an ISO 9001 registered entity:

- (1) Manufacturer
- (2) Manufacturing facility
- (3) Entity that directs and controls compliant product design
- (4) Entity that directs and controls compliant product quality assurance
- (5) Entity that provides the warranty for the compliant product
- (6) Entity that puts their name on the product label and markets and sells the product as their own

4.5.3.1 Registration to the requirements of ISO 9001, *Quality management systems — Requirements*, shall be conducted by a registrar that is accredited for personal protective equipment in accordance with ISO/IEC 17021, *Conformity assessment — Requirements for bodies providing audit and certification of management systems*. The registrar shall affix the accreditation mark on the ISO registration certificate.

4.5.4* Where the manufacturer uses subcontractors in the construction or assembly of the compliant product, the locations and names of all subcontractor facilities shall be documented, and the documentation shall be provided to the manufacturer's ISO registrar and the certification organization.

4.6 Hazards Involving Compliant Product.

4.6.1 The certification organization shall establish procedures to be followed where situation(s) are reported in which a compliant product is subsequently found to be hazardous. These procedures shall comply with the provisions of ISO Guide 27, *Guidelines for corrective action to be taken by a certification*

body in the event of misuse of its mark of conformity, and as modified herein.

4.6.2* Where a report of a hazard involved with a compliant product is received by the certification organization, the validity of the report shall be investigated.

4.6.3 With respect to a compliant product, a hazard shall be a condition or create a situation that results in exposing life, limb, or property to an imminently dangerous or dangerous condition.

4.6.4 Where a specific hazard is identified, the determination of the appropriate action for the certification organization and the manufacturer to undertake shall take into consideration the severity of the hazard and its consequences to the safety and health of users.

4.6.5 Where it is established that a hazard is involved with a compliant product, the certification organization shall determine the scope of the hazard, including products, model numbers, serial numbers, factory production facilities, production runs, and quantities involved.

4.6.6 The certification organization's investigation shall include, but not be limited to, the extent and scope of the problem as it might apply to other compliant products or compliant product components manufactured by other manufacturers or certified by other certification organizations.

4.6.7 The certification organization shall also investigate reports of a hazard where a compliant product is gaining widespread use in applications not foreseen when the standard was written, such applications in turn being ones for which the product was not certified, and no specific scope of application has been provided in the standard, and no limiting scope of application was provided by the manufacturer in written material accompanying the compliant product at the point of sale.

4.6.8 The certification organization shall require the manufacturer of the compliant product, or the manufacturer of the compliant product component if applicable, to assist the certification organization in the investigation and to conduct its own investigation as specified in Section 4.7, Manufacturers' Investigation of Complaints and Returns.

4.6.9 Where the facts indicating a need for corrective action are conclusive and the certification organization's appeal procedures referenced in 4.2.11 have been followed, the certification organization shall initiate corrective action immediately, provided there is a manufacturer to be held responsible for such action.

4.6.10 Where the facts are conclusive and corrective action is indicated, but there is no manufacturer to be held responsible, such as when the manufacturer is out of business or the manufacturer is bankrupt, the certification organization shall immediately notify relevant governmental and regulatory agencies and issue a notice to the user community about the hazard.

4.6.11* Where the facts are conclusive and corrective action is indicated, the certification organization shall take one or more of the following corrective actions:

- (1) Notification of parties authorized and responsible for issuing a safety alert when, in the opinion of the certification organization, such a notification is necessary to inform the users

- (2) Notification of parties authorized and responsible for issuing a product recall when, in the opinion of the certification organization, such a recall is necessary to protect the users
- (3) Removal of the mark of certification from the product
- (4) Where a hazardous condition exists and it is not practical to implement 4.6.11(1), 4.6.11(2), or 4.6.11(3), or the responsible parties refuse to take corrective action, the certification organization shall notify relevant governmental and regulatory agencies and issue a notice to the user community about the hazard

4.6.12 The certification organization shall provide a report to the organization or individual identifying the reported hazardous condition and notify them of the corrective action indicated, or that no corrective action is indicated.

4.6.13* Where a change to an NFPA standard(s) is felt to be necessary, the certification organization shall also provide a copy of the report and corrective actions indicated to the NFPA, and shall also submit either a public proposal for a proposed change to the next revision of the applicable standard, or a proposed temporary interim amendment (TIA) to the current edition of the applicable standard.

4.7 Manufacturers' Investigation of Complaints and Returns.

4.7.1 Manufacturers shall provide corrective action in accordance with ISO 9001, *Quality management systems — Requirements*, for investigating written complaints and returned products.

4.7.2 Manufacturers' records of returns and complaints related to safety issues shall be retained for at least 5 years.

4.7.3 Where the manufacturer discovers, during the review of specific returns or complaints, that a compliant product or compliant product component can constitute a potential safety risk to end users that is possibly subject to a safety alert or product recall, the manufacturer shall immediately contact the certification organization and provide all information about their review to assist the certification organization with their investigation.

4.8 Manufacturers' Safety Alert and Product Recall Systems.

4.8.1 Manufacturers shall establish a written safety alert system and a written product recall system that describes the procedures to be used in the event that it decides, or is directed by the certification organization, to either issue a safety alert or to conduct a product recall.

4.8.2 The manufacturers' safety alert and product recall system shall provide the following:

- (1) The establishment of a coordinator and responsibilities by the manufacturer for the handling of safety alerts and product recalls
- (2) A method of notifying all dealers, distributors, purchasers, users, and the NFPA about the safety alert or product recall that can be initiated within a one week period following the manufacturer's decision to issue a safety alert or to conduct a product recall, or after the manufacturer has been directed by the certification organization to issue a safety alert or conduct a product recall
- (3) Techniques for communicating accurately and understandably the nature of the safety alert or product recall and in particular the specific hazard or safety issue found to exist

- (4) Procedures for removing a product that is recalled and for documenting the effectiveness of the product recall
- (5) A plan for either repairing, replacing, or compensating purchasers for returned product

Chapter 5 Labeling and Information

5.1 Product Label Requirements.

5.1.1* Each element of the protective ensemble shall have a product label or labels permanently and conspicuously located inside each element when the element is properly assembled with all layers and components in place.

5.1.2 Multiple label pieces shall be permitted in order to carry all statements and information required to be on the product label; however, all label pieces that make up the product label shall be located adjacent to each other.

5.1.3* The certification organization's label, symbol, or identifying mark shall be permanently attached to the product label or shall be part of the product label. All letters shall be at least 2.5 mm ($\frac{3}{32}$ in.) high. The label, symbol, or identifying mark shall be at least 6 mm ($\frac{1}{4}$ in.) in height and shall be placed in a conspicuous location.

5.1.4 All worded portions of the required product label shall be printed at least in English.

5.1.5 Symbols and other pictorial graphic representations shall be permitted to be used to supplement worded statements on the product label(s) where the symbols and pictorial graphic representations are clearly explained in the product's user information package.

▲ **5.1.6** The statement specified in 5.1.6.1 for the specific element being certified shall be printed legibly on the product label. The appropriate term for the element (e.g., garment, helmet, glove, footwear, goggles) shall be inserted in the compliance statement text where indicated. All letters shall be at least 2.5 mm ($\frac{3}{32}$ in.) in height.

▲ **5.1.6.1** For technical rescue protective ensemble elements, the following statement shall be printed as specified in 5.1.6:

THIS TECHNICAL RESCUE PROTECTIVE ENSEMBLE
[insert appropriate element term here] **ELEMENT MEETS THE**
REQUIREMENTS OF NFPA 1951, STANDARD ON
PROTECTIVE ENSEMBLES FOR TECHNICAL RESCUE
INCIDENTS, 2020 EDITION.
DO NOT REMOVE THIS LABEL.

5.1.6.2 Where technical rescue garments meet the optional requirements for blood-borne pathogen protective garments, the following statement shall also be printed on the product label as specified in 5.1.6 immediately following the statement in 5.1.6.1:

THIS GARMENT MEETS THE OPTIONAL BLOOD-BORNE
PATHOGEN PROTECTION REQUIREMENTS OF
NFPA 1951-2020.

● **5.1.6.3** Where the technical rescue garments meet the optional requirements for blood-borne pathogen protective garments and are composed of separable layers, at least the following statement and information shall also be printed on the product label as specified in 5.1.6 and placed on the outer shell:

FOR COMPLIANCE WITH THE BLOOD-BORNE PATHOGEN PROTECTION OPTIONAL REQUIREMENTS OF NFPA 1951, THE FOLLOWING PROTECTIVE ITEMS MUST BE WORN IN CONJUNCTION WITH THIS GARMENT:
(list separable layers here).

▲ **5.1.7** The following information shall also be printed legibly on the product label, and all letters shall be at least 1.6 mm ($\frac{1}{16}$ in.) high:

- (1) Manufacturer's name, identification, or designation
- (2) Manufacturer's address
- (3) Country of manufacture
- (4) Manufacturer's element identification number, lot number, or serial number
- (5) Month and year of manufacture (not coded)
- (6) Model name, number, or design
- (7) Size or size range
- (8)* Principal material(s) of construction.
 - (a) For gloves, at least the outer layer, barrier layer, and thermal lining layer, where applicable, shall be listed. Generic names of materials shall be permitted to be used. If used, the type of leather shall be listed. Additional materials that are used throughout the significant portion of the glove's construction shall also be listed on the label.
 - (b) For footwear, at least the outer layer, barrier layer, and thermal lining layer, where applicable, shall be listed. Generic names of materials shall be permitted to be used. Additional materials that are used throughout the majority of the boot shall also be listed on the boot label.
 - (c) For garments, at least the identification of the fiber or material type of the outer shell and barrier layer, where applicable, shall be listed.
 - (d) For helmets, at least the general terminology for the shell material shall be used.
- (9) Cleaning precautions, if applicable

5.1.8 Supplementary Product Labels.

▲ **5.1.8.1** For garments only, where the outer shell and barrier layer are separable, each separable layer shall also have a label containing the information required in 5.1.7(4) through 5.1.7(8).

5.1.8.2 Supplementary product labels shall also meet the requirements of 5.1.4 and 5.1.5.

● **5.1.9 Specific Requirements for Technical Rescue Incidents Protective Goggles.**

5.1.9.1 For goggles only, the product label shall be permitted to be placed on the package.

5.1.9.2 The package containing the smallest number of goggle elements from which the user withdraws product for use shall have a package product label.

5.1.9.3 The package product label shall be permanently and conspicuously located on the outside of the package or printed on the package.

5.1.9.4 The label shall not be removed, obscured, or otherwise mutilated by the opening of the package when the package is opened as intended.