



First Revision No. 12-NFPA 2113-2022 [Global Input]

See attached Word document to reflect updates to edition years in extract tags as well as text revisions to reflect updates in material extracted from other NFPA documents.

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
2113_FR12_Extracted_Material.docx	Updates to extract tag edition years and revisions to reflect updates to extracted materia.l	
2113_FR-12_For_Ballot.docx		

Submitter Information Verification

Committee: FLG-AAA
Submittal Date: Thu Jul 28 08:46:36 EDT 2022

Committee Statement

Committee Statement: Revisions made to accurately reflect updates to extracted material from other NFPA documents.
Response Message: FR-12-NFPA 2113-2022

3.3.2.2 Upper Body.

The area of the body above the waist and extending to the shoulders, including the arms and wrists but excluding the hands. [2112,20182023]

3.3.14 Fire.

A rapid oxidation process, which is ~~an~~ an exothermic chemical reaction, resulting in the evolution of light and heat in varying intensities. [921,20172021]

3.3.17* Flash Fire.

A type of short-duration fire that spreads by means of a flame front rapidly through a diffuse fuel, such as dust, gas, or the vapors of an ignitable liquid, without the production of damaging pressure. [2112,20182023]

3.3.19* Garments.

Clothing including, but not limited to, coveralls, trousers, shirts, and outerwear. [2112,20182023]

3.3.19.2* Single-Use Garment.

A garment designed to be used one time and then disposed of. [2112,20182023]

3.3.20 Glove.

An item designed to provide protection to the wearer's hand and wrist. [2112,20182023]

3.3.34 Risk.

A combination of the probability and the degree of possible injury or damage to health in a hazardous situation. [79,20182021]

3.3.38 Short-Duration Thermal Exposure from Fire.

A period of egress from or accidental exposure to thermal events, including, but not limited to, vapor cloud fires, jet flames, liquid fires (pool fires or running liquid fires), solids fires (fires of solid materials or dust fires), or warehouse fires. [2112,20182023]

3.3.39* Shroud/Hood/Balaclava.

An item of clothing designed to provide protection to the wearer's head or neck, or both, less the face opening. [2112,20182023]

A.3.3.39 Shroud/Hood/Balaclava.

~~A shroud/hood/balaclava is an item of clothing with or without any face openings.~~ Shrouds/hoods/balaclavas that incorporate mouth and nose coverage that is intended to provide primary thermal protection are still to be considered as shrouds/hoods/balaclavas and not barrier face coverings. [2112, 2023]



First Revision No. 10-NFPA 2113-2022 [Sections 2.2, 2.3]

2.2 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 2112, *Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*, ~~2018~~ 2023 edition.

2.3 Other Publications.

2.3.1 ASTM Publications.

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

ASTM F1449, *Standard Guide for Industrial Laundering of Flame, Thermal, and Care and Maintenance of Flame Resistant or Arc Resistant Rated Clothing*, ~~2008, reapproved 2015~~ 2020.

ASTM F2757, *Standard Guide for Home Laundering Care and Maintenance of Flame, Thermal and Arc Resistant or Arc Rated Clothing*, ~~2009, reapproved 2016~~ 2020.

2.3.2 CSA Group Publications.

CSA Group, 178 Rexdale Boulevard, Toronto, ON M9W 1R3, Canada.

CSA Z96, *High-Visibility Safety Apparel*, 2015, revised 2022.

2.3.3 ISEA Publications.

International Safety Equipment Association, ~~1901 North Moore Street~~ 1101 Wilson Boulevard, Suite #1425, Arlington, VA 22209-1762.

ANSI/ISEA 107, *American National Standard for High-Visibility Safety Apparel and Headwear*, ~~2015~~ 2020.

2.3.4 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, ~~2003~~ 2020.

Submitter Information Verification

Committee: FLG-AAA

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Committee Statement

Committee Statement: Revisions made to update titles and edition years of NFPA Publications and Other Publications.

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Public Input No. 2-NFPA 2113-2022 [Section No. 2.3.1]



First Revision No. 2-NFPA 2113-2022 [Section No. 2.4]

2.4 References for Extracts in Mandatory Sections.

NFPA 79, *Electrical Standard for Industrial Machinery*, ~~2018~~ 2021 edition.

NFPA 921, *Guide for Fire and Explosion Investigations*, ~~2017~~ 2021 edition.

NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2020 edition.

NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2018 edition.

NFPA 1975, *Standard on Emergency Services Work Apparel*, 2019 edition.

NFPA 1983, *Standard on Life Safety Rope and Equipment for Emergency Services*, 2017 edition.

NFPA 1991, *Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies and CBRN Terrorism Incidents*, 2016 edition.

NFPA 2112, *Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*, ~~2018~~ 2023 edition.

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Committee Statement

Committee Statement: Updated edition years of references for extracts in mandatory sections.

Response Message: FR-2-NFPA 2113-2022

**First Revision No. 5-NFPA 2113-2022 [Section No. 4.3.2]****4.3.2**

Garments shall be selected that cover both the upper and lower body and ~~flammable~~ all underlayers as completely as possible.

Submitter Information Verification

Committee: FLG-AAA

Submittal Date: Tue Jul 26 13:10:29 EDT 2022

Committee Statement

Committee Statement: Revision made to clarify that all underlayers are intended to be covered as much as possible and not limited to flammable underlayers.

Response Message: FR-5-NFPA 2113-2022

**First Revision No. 6-NFPA 2113-2022 [New Section after 6.1.5]****6.1.6***

Any non-manufacturer tags made of meltable material shall not be located where direct skin contact is possible.

A.6.1.6

Examples of non-manufacturer tags could include laundry tags, name tags, or other label tags added to the garment after production.

Submitter Information Verification

Committee: FLG-AAA

Submittal Date: Tue Jul 26 13:32:52 EDT 2022

Committee Statement

Committee Statement: New section and annex material added to ensure that laundry tags or other tags added to garments after production will not contribute to burn injury.

Response Message: FR-6-NFPA 2113-2022



First Revision No. 11-NFPA 2113-2022 [Sections C.1, C.2]

C.1 Referenced Publications.

The documents or portions thereof listed in this annex are referenced within the informational sections of this standard and are not part of the requirements of this document unless also listed in Chapter 2 for other reasons.

C.1.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 70E[®], *Standard for Electrical Safety in the Workplace*[®], ~~2018~~ 2021 edition.

NFPA 550, *Guide to the Fire Safety Concepts Tree*, ~~2017~~ 2022 edition.

NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*, ~~2017~~ 2022 edition.

NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*, 2018 edition.

NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting and Urban Interface Fire Fighting*, ~~2016~~ 2022 edition.

~~NFPA 1991, *Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies and CBRN Terrorism Incidents*, 2016 edition.~~

NFPA 1990, *Standard for Protective Ensembles for Hazardous Materials and CBRN Operations*, 2022 edition.

~~NFPA 1992, *Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies*, 2018 edition.~~

NFPA 1999, *Standard on Protective Clothing and Ensembles for Emergency Medical Operations*, 2018 edition.

NFPA 2112, *Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*, ~~2018~~ 2023 edition.

C.1.2 Other Publications.

C.1.2.1 AATCC Publications.

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

AATCC 8, *Test Method for Colorfastness to Crocking*: ~~AATCC Crockmeter Method~~, ~~2013~~ 2016e.

AATCC 16.3, *Test Method for Colorfastness to Light: Xenon-Arc*, ~~2014~~ 2020.

AATCC 61, *Test Method for Colorfastness to Laundering: Accelerated*, ~~2013~~ 2020.

AATCC 132, *Test Method for Colorfastness to Dry Cleaning*, 2013.

AATCC 135, *Dimensional Changes of Fabrics After Home Laundering*, ~~2012~~ 2018t.

C.1.2.2 AIChE Publications.

American Institute of Chemical Engineers, 120 Wall Street, Floor 23, New York, NY 10005-4020.

Guidelines for Chemical Quantitative Process Risk Analysis (CCPS), 2000.

C.1.2.3 ASTM Publications.

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

ASTM D1424, *Standard Test Method for Tearing Strength of Fabrics by Falling Pendulum Type (Elmendorf-Type) Apparatus*, 2009 (2013e1 2019).

ASTM D1683/D1683M, *Standard Test Method for Failure in Sewn Seams of Woven Apparel Fabrics*, 2011a 2017 (2018).

ASTM D3776/D3776M, *Standard Test Methods for Mass Per Unit Area (Weight) of Woven Fabric*, 2009a (2017) 2020.

ASTM D3787, *Standard Test Method for Bursting Strength of Textiles: Constant-Rate-of-Transverse (CRT) Ball Burst Test*, 2016 2020.

ASTM D5034, *Standard Test Method for the Breaking Strength and Elongation of Textile Fabrics (Grab Test)*, 2009 (2017) 2021.

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

ASTM F1930, *Standard Test Method for Evaluation of Flame Resistant Clothing for Protection Against Flash Fire Simulations Using an Instrumented Manikin*, 2015 2018.

C.1.2.4 GSA Publications.

U.S. General Services Administration, 1800 F Street, NW, Washington, DC 20405.

Federal Test Method Standard 191A, *Textile Test Methods*, July 20, 1978.

C.1.2.5 US Government Publications.

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

Title 29, Code of Federal Regulations, Part 1910.1030, "Occupational Exposure to Bloodborne Pathogens, Final Rule."

C.1.2.6 Other Publications.

JOIFF Handbook on Personal Protective Equipment (PPE) to Protect Against Heat and Flame, Fulcrum Consultants, 2007.

C.2 Informational References.

The following documents or portions thereof are listed here as informational resources only. They are not a part of the requirements of this document.

C.2.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 472, *Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2018 edition.

NFPA 470, *Hazardous Materials/Weapons of Mass Destruction (WMD) Standard for Responders*, 2022 edition.

NFPA 473, *Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents*, 2018 edition.

NFPA 1975, *Standard on Emergency Services Work Apparel*, 2019 edition.

NFPA 1983, *Standard on Life Safety Rope and Equipment for Emergency Services*, 2017 edition.

NFPA 2500, *Standard for Operations and Training for Technical Search and Rescue Incidents and Life Safety Rope and Equipment for Emergency Services*, 2022 edition.

C.2.2 Other Publications.

C.2.2.1 AATCC Publications.

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

AATCC EP 8, *AATCC 9 Step Chromatic Transference Scale*, 2010(2017).

C.2.2.2 ACGIH Publications.

American Conference of Governmental Industrial Hygienists, ~~1330 Kemper Meadow Drive~~ 3640 Park 42 Drive, Cincinnati, OH ~~45240-1634~~ 45241.

ACGIH Guidelines for TLVs and BEIs, 2018.

C.2.2.3 ASTM Publications.

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

ASTM D6431, *Standard Guide for Using the Direct Current Resistivity Method for Subsurface Investigation*, ~~4999 (2010)~~ 2018.

ASTM F2757, *Standard Guide for Home Laundering Care and Maintenance of Flame, Thermal and Arc Resistant or Arc Rated Clothing*, ~~2009 (2016)~~ 2020.

C.2.2.4 US Government Publications.

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

NIOSH Pocket Guide to Chemical Hazards, 2007.

C.2.2.5 Other Publications.

Lewis, Richard J., Sr., *Sax's Dangerous Properties of Industrial Materials*, 12th edition, Wiley, 2012.

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First Revision No. 4-NFPA 2113-2022 [Section No. C.3]

C.3 References for Extracts in Informational Sections.

NFPA 2112, *Standard on Flame-Resistant Clothing for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire*, ~~2018~~ 2023 edition.

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