











Response Message: SR-104-NFPA 2500-2020

Public Comment No. 4-NFPA 2500-2020 [Section No. 2.2]



Committee Statement: Update to referenced publications editions.

Response Message: SR-105-NFPA 2500-2020

Public Comment No. 5-NFPA 2500-2020 [Section No. 2.3.2]



Committee: FAE-SCE Submittal Date: Tue Oct 27 12:12:46 EDT 2020

Committee Statement

Committee Statement:	Added definition for Universal Precautions and associated annex material as this term is used in 1858.
Response Message:	SR-109-NFPA 2500-2020







3.3.45* Decontamination.

The act of removing contamination from or neutralizing contamination in protective clothing and equipment. (See also 3.3.31, Cleaning.)

A.3.3.45 Decontamination.

Decontamination is specific to the removal or neutralization of contamination whereas cleaning can remove both soiling and contamination. Decontamination might also apply to certain types of specialized cleaning where particular procedures are used to remove or neutralize contaminants other than products of combustion that are found on protective ensembles or elements.

Decontamination might involve mechanical, chemical, thermal, or combined processes for removing or neutralizing contaminants. An example of a mechanical process is where brushing or wiping removes an exterior contaminant from the surface of the element. Chemical processes involve the use of detergents or other cleaning agents that react with or aid in the removal of contaminants from element materials. Heating is one type of a thermal process where higher temperatures could cause certain contaminants to evaporate out of the element materials. Laundering is a form of a combined process where the machine agitation, use of a detergent, and heated water all work together to remove contaminants from the element.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 12:48:08 EDT 2020

Committee Statement

Committee Statement:	These definitions are helpful related to NFPA 1858 sections and the cleaning requirements.
Response Message:	SR-17-NFPA 2500-2020



3.3.204* Soiling.

The accumulation of sweat, dust, dirt, debris, and other nonhazardous materials on or in an ensemble or ensemble element that could degrade its performance or cause hygiene issues.

A.3.3.204 Soiling.

Soiling excludes contaminants that could adversely affect the wearer such as products of combustion and other hazardous materials, including toxic, corrosive, or sensitizing chemicals, potentially infectious body fluids, other infectious microorganisms, and CBRN terrorism agents. Since many fireground exposures with entry into a structure will involve exposure to combustion products that contain hazardous chemicals and other substances including carcinogens, any exposure to these conditions could result in contamination.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 12:49:08 EDT 2020

Committee Statement

CommitteeThese definitions are helpful related to NFPA 1858 sections and the cleaning
requirements.Statement:ResponseResponseSR-18-NFPA 2500-2020Message:SR-18-NFPA 2500-2020



24.1.1.1

Chapters 24 through 28 shall specify minimum design, performance, testing, and certifications requirements for life safety rope, escape and fire escape rope, throwlines, escape and fire escape webbing, moderate elongation laid life-saving rope, manufacturer-supplied eye terminations, life safety harnesses, belts, victim extrication devices, end-to-end and multiple configuration straps, belay devices, carabiners<u>and snap links</u>, descent control devices, escape anchors, litters, portable anchors, pulleys, rope grab and ascending devices, other auxiliary equipment, escape and fire escape systems, and manufactured systems for emergency services personnel.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 11:57:24 EDT 2020

Committee Statement

Committee Statement: Snap Links were inadvertently omitted from the list of applicable items. **Response Message:** SR-7-NFPA 2500-2020

Public Comment No. 6-NFPA 2500-2020 [Section No. 24.1.1.1]



24.1.2.1*

The purpose of Chapters 24 through 28 shall be to establish minimum levels of performance for life safety rope, escape and fire escape rope, throwlines, escape and fire escape webbing, moderate elongation laid life-saving rope, manufacturer-supplied eye terminations, life safety harnesses, belts, victim extrication devices, end-to-end and multiple configuration straps, belay devices, carabiners <u>and snap links</u>, descent control devices, escape anchors, litters, portable anchors, pulleys, rope grab and ascending devices, other auxiliary equipment, escape and fire escape systems, and manufactured systems for emergency services personnel.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 17:07:22 EDT 2020

Committee Statement

Committee Statement: Snap Links were inadvertently omitted from the list of applicable items. **Response Message:** SR-68-NFPA 2500-2020

Public Comment No. 7-NFPA 2500-2020 [Section No. 24.1.2.1]



24.1.3.1

Chapters 24 through 28 shall apply to the design, performance, testing, and certification of new emergency services life safety rope, escape and fire escape rope, throwlines, escape and fire escape webbing, moderate elongation laid life-saving rope, manufacturer-supplied eye terminations, life safety harnesses, belts, victim extrication devices, end-to-end and multiple configuration straps, belay devices, carabiners and snap links, descent control devices, escape anchors, litters, portable anchors, pulleys, rope grab and ascending devices, other auxiliary equipment, escape and fire escape systems, and manufactured systems.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 17:07:50 EDT 2020

Committee Statement

Committee Statement: Snap Links were inadvertently omitted from the list of applicable items. **Response Message:** SR-69-NFPA 2500-2020

Public Comment No. 8-NFPA 2500-2020 [Section No. 24.1.3.1]



24.1.3.5

Chapters 24 through 28 shall not apply to use requirements for life safety rope and associated life safety rope equipment because those requirements are specified in NFPA 1500 and NFPA 1858, incorporated in the 2022 edition of this standard.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Nov 30 10:21:38 EST 2020

Committee Statement

Committee Statement: Properly referencing standards. Response Message: SR-164-NFPA 2500-2020



24.2.1

The process of certification for product as being compliant with NFPA 1983, incorporated in the 2022 edition of this standard, shall meet the requirements of Section 24.2, General; Section 24.3, Certification Program; Section 24.4, Inspection and Testing; Section 24.5, Recertification; Section 24.6, Manufacturer's Quality Assurance Program; Section 24.7, Hazards Involving Compliant Product; Section 24.8, Manufacturers' Investigation of Complaints and Returns; and Section 24.9, Manufacturers' Safety Alert and Product Recall Systems.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Nov 30 10:23:45 EST 2020

Committee Statement

Committee Statement: Properly referencing standards. Response Message: SR-165-NFPA 2500-2020



24.2.4

Manufacturers shall not claim compliance with portions or segments of the requirements of <u>NFPA 1983</u>, incorporated in the 2022 edition of this standard, and shall not use the NFPA name or the name or identification of this standard, NFPA 1983, in any statements about their respective products unless the products are certified as compliant to this standard.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Nov 30 10:25:20 EST 2020

Committee Statement

Committee Statement:Properly referencing standards.Response Message:SR-166-NFPA 2500-2020





24.2.9

The certification organization shall not permit any manufacturer to continue to label any protective ensembles or ensemble elements products that are certified as compliant with the 2017 edition of NFPA 1983 after [effective date, plus 12 months].

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 11:03:21 EDT 2020

Committee Statement

Committee Statement:	This standard does not cover ensembles or ensemble elements therefore it is changed to products.
Response Message:	SR-98-NFPA 2500-2020





All products that are labeled as being compliant with this standard shall undergo recertification in accordance with Table 24.5.1.

Table 24.5.1 Recertification Schedule

Product	Test	Time
All component product	Corrosion testing	Initial cert only
All component product	Product label durability tests	Initial cert only
Throwlines	Rope breaking	Every year
Throwlines	Floatability	Every year
Life safety harness	Static	Alternating years with drop test
Life safety harness	Drop	Alternating years with static test
Belt	Static	Alternating years with drop test
Belt	Drop	Alternating years with static test
Carabiners and snap-links	All	Every 2 years
Rope grab and ascending devices	All	Every 2 years
Descent control devices — auto stop	Holding test	Every year
Descent control devices — auto stop	Manner of function	Every year
Descent control devices — non-auto-stop	All	Every 2 years
Portable anchor	All	Initial cert only
Pulley	All	Every 2 years
Multiple configuration and end-to-end straps	Breaking strength	Every year
Manufactured systems	All	Every year
Escape systems	All	Every year
Life safety rope	Diameter, rope breaking, and elongation	Every year
Life safety rope fibers	Melting and crystallization temperatures by thermal analysis	Every year
Escape rope and fire escape rope	Diameter, rope breaking, and elongation	Every year
Fire escape rope	Elevated rope temperature test	Every year
Escape rope fibers	Melting and crystallization temperatures by thermal analysis	Every year
Escape webbing and fire escape webbing	Perimeter, rope breaking, and elongation	Every year
Fire escape webbing	Elevated rope temperature test	Every year
Escape webbing fibers	Melting and crystallization temperatures by thermal analysis	Every year
Moderate elongation laid life-saving rope	Diameter, rope breaking, and elongation	Every year
Moderate elongation laid life life-saving rope fibers	Melting and crystallization temperatures by thermal analysis	Every year
Victim extrication devices	Static	Every 2 years

Product	Test	<u>Time</u>
Litters	Litter strength test — vertical	Alternating years with horizontal
Litters	Litter strength test — horizontal	Alternating years with vertical
Load-bearing textiles used in victim extrication devices	Melting and crystallization temperatures by thermal analysis	Every year
Thread used in victim extrication devices	Melting and crystallization temperatures by thermal analysis	Every year
Webbing components	Melting and crystallization temperatures by thermal analysis	Every year
Thread components	Melting and crystallization temperatures by thermal analysis	Every year
Load-bearing textiles used in belts with optional flame resistance	Flame resistance	Every year
Load-bearing textiles used in belts with optional flame resistance	Heat resistance	Every year
Hardware installed in belts with optional flame resistance	Heat resistance	Every year
Thread used in belts with optional flame resistance	Thread heat resistance	Every year
Load-bearing textiles used in life safety harnesses with optional flame resistance	Flame resistance	Every year
Load-bearing textiles used in life safety harnesses with optional flame resistance	Flame <u>Heat</u> resistance	Every year
Hardware installed in life safety harnesses with optional flame resistance	Heat resistance	Every year
Thread used in life safety harnesses with optional flame resistance	Thread heat resistance	Every year
Manufacturer-supplied eye termination	Breaking strength	Every year
Manufacturer-supplied eye termination	Thread melting	Every year
Belay devices	Manner of function	Every 2 years
Other auxiliary equipment	All	Every 2 years
Escape anchors	All	Every 2 years
Fire escape systems	All	Every year

Supplemental Information

File NameDescriptionPC_119_and_9_-_Table_24.5.1.docxFor staff use

Description Approved For staff use

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 12:18:12 EDT 2020

Committee Statement

Committee Flame resistance is given twice for tests required for loading bearing textiles used in life

Statement: safety harnesses with optional flame resistance. Flame resistance has been revised to Heat Resistance. This was an inadvertent duplication and omission. Additionally, the product list has been revised for clarity and consistency by adding snap links to the carabiner row and ascending devices to the rope grab row.

Response SR-10-NFPA 2500-2020 Message:

Public Comment No. 119-NFPA 2500-2020 [Section No. 24.5.1 [Excluding any Sub-Sections]]

Public Comment No. 9-NFPA 2500-2020 [Section No. 24.5.1 [Excluding any Sub-Sections]]







25.1.2.1

The manufacturer of life safety rope that is certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, maintenance procedures, cleaning procedures, and retirement criteria for the product.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 11:30:14 EDT 2020

Committee Statement

Committee The sections covering NFPA 1858 require the user to reference Manufacturer's **Statement:** instructions on cleaning. Therefore, this has been added to the requirements in the user instructions for NFPA 1983.

Response SR-1-NFPA 2500-2020 Message:

Public Comment No. 85-NFPA 2500-2020 [Section No. 25.1.2.1]



Committee: FAE-SCE Submittal Date: Mon Oct 26 16:15:26 EDT 2020

Committee Statement

Committee The sections covering NFPA 1858 require the user to reference Manufacturer's
Statement: instructions on cleaning. Therefore, this has been added to the requirements in the user instructions for NFPA 1983.
Response SR-44-NFPA 2500-2020
Message:

Public Comment No. 86-NFPA 2500-2020 [Section No. 25.2.2.1]

	Second R	evision No. 3-NFPA 2500-2020 [Section No. 25.2.2.3]	
	25.2.2.3		
	The manufacturer shall provide information for the user that additional information regarding escape rope, escape webbing, fire escape rope, and fire escape webbing can be found in NFPA 1500, and NFPA 1858, and NFPA 1983, incorporated in the 2022 edition of this standard.		
Submitter Information Verification			
(Committee: Submittal Date	FAE-SCE Mon Oct 26 11:42:12 EDT 2020	
Committee Statement			
	Committee Statement:	NFPA 2500 has been included in the user manual list of standards providing additional information.	
		This paragraph also is only applicable to escape rope. The other rope/webbing types are covered in subsequent sections.	
	Response Message:	SR-3-NFPA 2500-2020	
	Public Comme	nt No. 20-NFPA 2500-2020 [Section No. 25.2.2.3]	



Response SR-70-NFPA 2500-2020 Message:

Public Comment No. 21-NFPA 2500-2020 [Section No. 25.3.2.3]



Response SR-71-NFPA 2500-2020 Message:

Public Comment No. 22-NFPA 2500-2020 [Section No. 25.4.2.3]







25.6.2.1

The manufacturer shall provide information for the user that additional information regarding throwlines can be found in <u>NFPA 1500 and</u> NFPA 1858 and NFPA 1983, incorporated in the 2022 edition of this standard.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 17:16:32 EDT 2020

Committee Statement

Committee
Statement:NFPA 1500 and NFPA 2500 have been included in the user manual list of standards
providing additional informationResponse
Message:SR-73-NFPA 2500-2020

Public Comment No. 24-NFPA 2500-2020 [Section No. 25.6.2.1]



25.7.2.5

The manufacturer shall provide information for the user that additional information regarding moderate elongation laid life-saving rope can be found in NFPA 1500, and NFPA 1858, and NFPA 1983, incorporated in the 2022 edition of this standard.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 17:17:55 EDT 2020

Committee Statement

Committee
Statement:NFPA 2500 has been included in the user manual list of standards providing
additional informationResponse
Message:SR-74-NFPA 2500-2020

Public Comment No. 25-NFPA 2500-2020 [Section No. 25.7.2.5]





25.9.2.1

The manufacturer of life safety harnesses that are certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, <u>cleaning</u> <u>procedures</u>, maintenance procedures, and retirement criteria for the product.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 16:22:19 EDT 2020

Committee Statement

Committee The sections covering NFPA 1858 require the user to reference Manufacturer's **Statement:** instructions on cleaning. Therefore, this has been added to the requirements in the user instructions for NFPA 1983.

Response SR-51-NFPA 2500-2020 Message:

Public Comment No. 93-NFPA 2500-2020 [Section No. 25.9.2.1]












Committee	NFPA 2500 has been included in the user manual list of standards providing
Statement:	additional information
Response Message:	SR-80-NFPA 2500-2020

Public Comment No. 31-NFPA 2500-2020 [Section No. 25.13.2.3]



Committee	NFPA 2500 has been included in the user manual list of standards providing
Statement:	additional information
Response Message:	SR-81-NFPA 2500-2020

Public Comment No. 32-NFPA 2500-2020 [Section No. 25.14.2.3]



Committee Statement:	NFPA 2500 has been included in the user manual list of standards providing additional information
Response Message:	SR-82-NFPA 2500-2020

Public Comment No. 33-NFPA 2500-2020 [Section No. 25.15.2.3]



Response SR-83-NFPA 2500-2020 Message:

Public Comment No. 34-NFPA 2500-2020 [Section No. 25.16.2.3]



Message:

Public Comment No. 35-NFPA 2500-2020 [Section No. 25.17.2.3]



Committee Statement:	NFPA 2500 has been included in the user manual list of standards providing additional information
Response Message:	SR-85-NFPA 2500-2020

Public Comment No. 36-NFPA 2500-2020 [Section No. 25.18.2.3]



Public Comment No. 129-NFPA 2500-2020 [Section No. 25.19.2.3]

Public Comment No. 37-NFPA 2500-2020 [Section No. 25.19.2.3]



Committee Statement:	NFPA 2500 has been included in the user manual list of standards providing additional information
Response Message:	SR-87-NFPA 2500-2020

Public Comment No. 38-NFPA 2500-2020 [Section No. 25.20.2.3]



Committee Statement:	NFPA 2500 has been included in the user manual list of standards providing additional information
Response Message:	SR-88-NFPA 2500-2020

Public Comment No. 39-NFPA 2500-2020 [Section No. 25.21.2.3]



Public Comment No. 40-NFPA 2500-2020 [Section No. 25.22.2.3]



Public Comment No. 41-NFPA 2500-2020 [Section No. 25.23.2.3]





Public Comment No. 74-NFPA 2500-2020 [Section No. 25.24.2.2]



Second Revision No. 19-NFPA 2500-2020 [Section No. 25.25.1]

25.25.1 Manufactured System Label Requirements.

25.25.1.1

Each manufactured system shall have a product label.

25.25.1.2

Each manufactured system load-bearing hardware component shall have a product label stamped, engraved, or otherwise permanently marked with the portions of the product label information specified in 25.25.1.2.1 through 25.11.2.3 <u>25.25.1.2.5</u>.

25.25.1.2.1

Each manufactured system load-bearing hardware component shall display the manufacturer's name or identifying mark.

Global SR-167

25.25.1.2.2

Manufactured systems shall have the following compliance statement:

MEETS NFPA 1983 (2022 ED), INCORPORATED IN THE 2022 EDITION OF NFPA 2500.

25.25.1.2.3

Manufactured systems shall display at least the minimum rated breaking strength prefaced by the letters "MBS."

25.25.1.2.4

The MBS value stated on the product label shall be permitted to be any value greater than the actual "pass" requirement value determined by the certification testing, but shall not be greater than the calculated MBS.

25.25.1.2.5

Manufactured systems shall display a "T" for technical-use manufactured system or "G" for general-use manufactured system.

25.25.1.2.5.1

The designation "T" or "G" shall be determined in accordance with 27.25.2 or 27.25.4.

25.25.1.3

For the portions of the product label information not specified in 25.25.1.2 through 25.25.1.2.4 25.25.1.2.5, the product label shall be permitted to be a hang tag affixed to each manufactured system or shall be permitted to be printed on a sheet that is inserted and sealed in the packaging that immediately contains the manufactured system.

25.25.1.4

All letters shall be at least 2 mm (⁵/₆₄ in.) high.

25.25.1.5

Multi-label pieces shall be permitted to carry all statements and information required to be on the product label; however, all label pieces comprising the entire product label shall be located adjacent to each other.

25.25.1.6

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

25.25.1.7

Symbols and other pictorial graphic representations shall be permitted to be used to supplement worded statements on the product label(s).

25.25.1.8

The certification organization's label, symbol, or identifying mark shall be printed on the product label. All letters shall be at least 2 mm ($\frac{5}{44}$ in.) high.

Global SR-167

25.25.1.9

Each manufactured system shall have the following compliance statement on the product label:

MEETS THE MANUFACTURED SYSTEM REQUIREMENTS OF NFPA 1983, STANDARD ON LIFE SAFETY ROPE AND EQUIPMENT FOR EMERGENCY SERVICES, INCORPORATED IN THE 2022 EDITION OF NFPA 2500. DO NOT DISASSEMBLE.

25.25.1.10

In addition to the compliance statement specified in 25.25.1.9, at least the information required in 25.25.1.2.1 shall also be provided on the printed product label.

25.25.1.11

In addition to the compliance and information statements in 25.25.1.9 and 25.25.1.10, at least the following information shall also be printed on the product label(s) where all letters shall be at least 2 mm ($\frac{5}{44}$ in.) high:

- (1) Manufacturer's name, identification, or designation
- (2) Manufacturer's address
- (3) Country of manufacture
- (4) Manufacturer's product identification
- (5) Model, style, lot, or serial number

Global SR-169

25.25.1.12

Where detachable components must be used with the manufactured system for the manufactured system to be compliance with this standard, at least the following statement and information shall also be printed on the product label of the item. All letters shall be at least 2 mm ($\frac{5}{64}$ in.) high. The detachable component(s) shall be listed following the statement by type, identification, and how properly used.

TO BE COMPLIANT WITH NFPA 1983, <u>INCORPORATED IN THE 2022 EDITION OF</u> <u>NFPA 2500</u>, THE FOLLOWING ADDITIONAL COMPONENTS MUST BE USED IN CONJUNCTION WITH THIS MANUFACTURED SYSTEM:

[The detachable component(s) shall be listed here].

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 12:52:33 EDT 2020

Committee Statement

Committee Revision was approved by committee to 25.25.1.2.4 but did not make it into document, **Statement:** and actually should be 25.25.1.2.5 to include use class. Reference in 25.25.1.3 is

correction to include 25.25.1.2.5 use class.

Response SR-19-NFPA 2500-2020 **Message:**

Public Comment No. 131-NFPA 2500-2020 [Section No. 25.25.1]

Second Revision No. 67-NFPA 2500-2020 [Section No. 25.25.2.1]

25.25.2.1

The manufacturer of a manufactured system that is certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, <u>cleaning</u> <u>procedures</u>, maintenance procedures, and retirement criteria for the product.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 17:05:26 EDT 2020

Committee Statement

Committee The sections covering NFPA 1858 require the user to reference Manufacturer's **Statement:** instructions on cleaning. Therefore, this has been added to the requirements in the user instructions for NFPA 1983.

Response SR-67-NFPA 2500-2020 Message:

Public Comment No. 109-NFPA 2500-2020 [Section No. 25.25.2.1]





26.1.1 Life Safety Rope Design Requirements.

<u>26.1.1.1</u>

Life safety rope shall be designated by the manufacturer for its intended use and design load as either technical use or general use.

26.1.1.2*

Life safety rope shall be constructed of virgin fiber.

26.1.1.3

Life safety rope shall be of block creel construction.

26.1.1.4

Primary load-bearing elements of life safety rope shall be constructed of continuous filament fiber.

26.1.1.5

Where life safety rope is a component of equipment with electric-current carrying capabilities, the equipment, including the life safety rope, shall meet the requirements of UL 913, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division 1, Hazardous (Classified) Locations,* for Class I, Division 1, Groups A, B, C, and D and Class II, Division 1, Groups E, F, and G hazardous locations.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 13:13:56 EDT 2020

Committee Statement

Committee
Statement:All other items require designation of the product type as part of the design
requirements except for Life Safety Rope. This is added for consistency.Response
Message:SR-23-NFPA 2500-2020

Public Comment No. 46-NFPA 2500-2020 [Section No. 26.1.1]



<u>26.2.1.4</u>

Where escape rope is a component of equipment with electric-current carrying capabilities, the equipment, including the escape rope, shall meet the requirements of UL 913, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, II, Division 1, Hazardous (Classified) Locations*, for Class 1, Division 1, Groups A, B, C, and D and Class II, Division 1, Groups E, F, and G hazardous locations.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 12:56:06 EDT 2020

Committee Statement

Committee Provides consistency with other life safety rope electric current-carry capabilities and **Statement:** apply those requirements to escape rope, escape webbing, fire escape rope, and fire escape webbing.

Response SR-20-NFPA 2500-2020 Message:

Public Comment No. 10-NFPA 2500-2020 [New Section after 26.2.1.3]

Second Revision No. 93-NFPA 2500-2020 [New Section after 26.3.1.3]

<u>26.3.1.4</u>

Where escape webbing is a component of equipment with electric-current carrying capabilities, the equipment, including the escape webbing, shall meet the requirements of UL 913, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division* <u>1, Hazardous (Classified) Locations</u>, for Class I, Division 1, Groups A, B, C, and D and Class II, Division 1, Groups E, F, and G hazardous locations.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 18:03:24 EDT 2020

Committee Statement

Committee Provides consistency with other life safety rope electric current-carry capabilities and **Statement:** apply those requirements to escape rope, escape webbing, fire escape rope, and fire escape webbing.

Response SR-93-NFPA 2500-2020 Message:

Public Comment No. 11-NFPA 2500-2020 [New Section after 26.3.1.3]

Second Revision No. 21-NFPA 2500-2020 [New Section after 26.4.1.3]

<u>26.4.1.4</u>

Where fire escape rope is a component of equipment with electric-current carrying capabilities, the equipment, including the fire escape rope, shall meet the requirements of UL 913, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, III, Division* <u>1, Hazardous (Classified) Locations</u>, for Class I, Division 1, Groups A, B, C, and D and Class II, Division 1, Groups E, F, and G hazardous locations.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 13:05:09 EDT 2020

Committee Statement

Committee Provides consistency with other life safety rope electric current-carry capabilities and **Statement:** apply those requirements to escape rope, escape webbing, fire escape rope, and fire escape webbing.

Response SR-21-NFPA 2500-2020 Message:

Public Comment No. 12-NFPA 2500-2020 [New Section after 26.4.1.3]

Second Revision No. 22-NFPA 2500-2020 [New Section after 26.5.1.3]

<u>26.5.1.4</u>

Where fire escape webbing is a component of equipment with electric-current carrying capabilities, the equipment, including the fire escape webbing, shall meet the requirements of UL 913, *Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, II, Division 1, Hazardous (Classified) Locations*, for Class I, Division 1, Groups A, B, C, and D and Class II, Division 1, Groups E, F, and G hazardous locations.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 13:08:44 EDT 2020

Committee Statement

Committee Provides consistency with other life safety rope electric current-carry capabilities and **Statement:** apply those requirements to escape rope, escape webbing, fire escape rope, and fire escape webbing.

Response SR-22-NFPA 2500-2020 Message:

Public Comment No. 13-NFPA 2500-2020 [New Section after 26.5.1.3]



Public Comment No. 14-NFPA 2500-2020 [Section No. 26.8.1.1]



26.9.2 Optional Requirements for Flame-Resistant Life Safety Harnesses.

Sewing thread utilized in the construction of <u>flame-resistant</u> life safety harnesses shall be made of inherently flame-resistant fiber.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 13:26:34 EDT 2020

Committee Statement

CommitteeAdding text to clarify that this is a requirement for flame-resistant life safety
harnesses.Statement:Adding text to clarify that this is a requirement for flame-resistant life safety
harnesses.Response Message:SR-26-NFPA 2500-2020

Public Comment No. 15-NFPA 2500-2020 [Section No. 26.9.2]





Committee Statement

Committee This design requirement should be consistent throughout the standard for the applicable **Statement:** products. Currently this is not the case. This revision clarifies the design requirement and makes it consistent with other products.

Response SR-95-NFPA 2500-2020 Message:

Public Comment No. 124-NFPA 2500-2020 [Section No. 26.14.1.2]



Public Comment No. 126-NFPA 2500-2020 [Section No. 26.19.1.2]











27.5.3

Fiber utilized for all fire escape rope webbing shall be tested for melting in accordance with ASTM E794, *Standard Test Method for Melting and Crystallization Temperatures by Thermal Analysis*, and shall have a melting point of not less than $204^{\circ}C 260^{\circ}C$ ($400^{\circ}F 500^{\circ}F$).

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 11:18:56 EDT 2020

Committee Statement

CommitteeRevised the pass/fail to make consistent with other flame resistant option products
and changed rope to webbing.Statement:SR-100-NFPA 2500-2020Message:SR-100-NFPA 2500-2020



27.6.2*

Throwlines shall be tested for size as specified in Section 7.1 of Cl 1800, *Test Methods for Life Safety Rope and Accessory Cords for Life Safety Applications*, and shall have a diameter of 7 mm ($^{19}_{64}$ in.) or greater but less than <u>or equal to 9.5 mm</u> ($^{36}_{64}$ in.). For the purpose of reporting, the calculated diameter of throwlines shall be rounded to the nearest 0.5 mm ($^{164}_{64}$ in.).

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 13:51:45 EDT 2020

Committee Statement

Committee Addition needed to clarify that it includes 9.5mm and also to have language consistent **Statement:** with other rope diameter requirements. This was discussed and added for other ropes but was mistakenly left off for throwlines.

Response SR-31-NFPA 2500-2020 Message:

Public Comment No. 60-NFPA 2500-2020 [Section No. 27.6.2]



27.9.1.1

Class II life safety harnesses shall be tested for strength as specified in Section 28.3.

27.9.1.1.1

Class II life safety harnesses shall not release from the test torso.

27.9.1.1.2

Class II life safety harness buckles and adjusting devices shall not slip more than 25 mm (1 in.).

27.9.1.1.2.1

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the two measurements shall not be more than 25 mm (1 in.).

27.9.1.1.3

Harnessed <u>Harness</u> webbing shall show no visible signs of damage that would affect its function.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:09:28 EDT 2020

Committee Statement

Committee In re-writing the section in FR 374, the requirement for slippage inadvertently dropped off **Statement:** and has been added back in as 27.9.1.1.2 and then slippage at angle statement becomes 27.9.1.1.2.1. Also, paragraph statement on measuring angles is a bit awkward and has been revised from "average of two" to "average of the measurements." Also, 27.9.1.1.3 has been changed from "Harnessed" to "Harness."

Response SR-32-NFPA 2500-2020 Message:

Public Comment No. 63-NFPA 2500-2020 [Section No. 27.9.1.1]

Public Comment No. 47-NFPA 2500-2020 [Section No. 27.9.1.1.3]



27.9.2.1

Class III life safety harnesses shall be tested for strength as specified in Section 28.3.

27.9.2.1.1

Class III life safety harnesses shall not release from the test torso.

27.9.2.1.2

<u>Class III life safety harness buckles and adjusting devices shall not slip more than 25 mm (1 in.).</u>

27.9.2.1.2.1

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the two measurements shall not be more than 25 mm (1 in.).

27.9.2.1.3

Harnessed <u>Harness</u> webbing shall show no visible signs of damage that would affect its function.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:12:54 EDT 2020

Committee Statement

Committee In re-writing section 27.9.2.1, the requirement for slippage inadvertently dropped off so it **Statement:** has been added back in as 27.9.2.1.2 and then slippage at angle statement becomes 27.9.2.1.2.1. Also, paragraph statement on measuring angles is a bit awkward and has been revised from "average of two" to "average of the measurements." Also, 27.9.2.1.3 has been changed from "Harnessed" to "Harness."

Response SR-33-NFPA 2500-2020 Message:

Public Comment No. 64-NFPA 2500-2020 [Section No. 27.9.2.1]

Public Comment No. 48-NFPA 2500-2020 [Section No. 27.9.2.1.3]



Committee Statement: Revised to apply this requirement to fiber used in harnesses and belts. **Response Message:** SR-101-NFPA 2500-2020


27.10.1

Ladder belts shall be tested for strength as specified in Section 28.3.

27.10.1.1

Ladder belts shall not release from the test torso.

27.10.1.2

Ladder belt buckles and adjusting devices shall not slip more than 25 mm (1 in.).

27.10.1.2.1

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the two measurements shall not be more than 25 mm (1 in.).

27.10.1.3

Harnessed webbing <u>Belt webbing</u> shall show no visible signs of damage that would affect its function.

27.10.1.4

Where ladder belts include side D-rings and attachment points designated by the manufacturer as positioning attachments only, these attachments shall be tested for strength as specified in Section 28.3 and shall show no visible signs of damage that would affect their function.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:15:40 EDT 2020

Committee Statement

Committee In re-writing section 27.10.1, the requirement for slippage inadvertently dropped off so it **Statement:** has been added back in as 27.10.1.2 and then slippage at angle statement becomes 27.10.1.2.1. Also, paragraph statement on measuring angles is a bit awkward and has been revised from "average of two" to "average of the measurements." Also, 27.10.1.3 has been changed from "Harnessed" to "Belt."

Response SR-34-NFPA 2500-2020 Message:

Public Comment No. 65-NFPA 2500-2020 [Section No. 27.10.1]

Public Comment No. 57-NFPA 2500-2020 [Section No. 27.10.1.3]



27.10.2

Escape belts shall be tested for strength as specified in Section 28.3.

27.10.2.1

Escape belts shall not release from the test torso.

27.10.2.2

Escape belt buckles and adjusting devices shall not slip more than 25 mm (1 in.).

27.10.2.2.1

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the two measurements shall not be more than 25 mm (1 in.).

27.10.2.3

Harnessed <u>Belt</u> webbing shall show no visible signs of damage that would affect its function.

27.10.2.4

Where escape belts include side D-rings and attachment points designated by the manufacturer as positioning attachments only, these attachments shall be tested for strength as specified in Section 28.3 and shall show no visible signs of damage that would affect their function.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:18:21 EDT 2020

Committee Statement

Committee In re-writing section 27.10.2, the requirement for slippage inadvertently dropped off so it **Statement:** has been added back in as 27.10.2.2 and then slippage at angle statement becomes 27.10.2.2.1. Also, paragraph statement on measuring angles is a bit awkward and has been revised from "average of two" to "average of the measurements." Also, 27.10.2.3 has been changed from "Harnessed" to "Belt."

Response SR-35-NFPA 2500-2020 **Message:**

Public Comment No. 66-NFPA 2500-2020 [Section No. 27.10.2]

Public Comment No. 58-NFPA 2500-2020 [Section No. 27.10.2.3]



27.10.7.3

Where belts are represented as being flame resistant flame-resistant, all fiber and sewing thread utilized in the construction of belts shall be tested for melting as specified in ASTM D7138, *Standard Test Method to Determine Melting Temperature of Synthetic Fibers*, Method 1, and shall have a melting point of not less than 260°C (500°F).

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 11:23:47 EDT 2020

Committee Statement

Committee Statement: Revised to apply this requirement to fiber used in harnesses and belts. **Response Message:** SR-102-NFPA 2500-2020

Second Revision No. 36-NFPA 2500-2020 [Section No. 27.11]

27.11 Victim Extrication Device Performance Requirements.

27.11.1 Class II Victim Extrication Devices.

27.11.1.1

Class II victim extrication devices shall be tested for strength as specified in Section 28.3 and shall not release the test torso. The device buckles and adjusting devices shall not slip more than 25 mm (1 in.), and the device shall show no visible signs of damage that would affect its function.

<u>27.11.1.1.1</u>

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the measurements shall not be more than 25 mm (1 in.).

27.11.1.2

Where Class II victim extrication devices include alternate D-rings and attachment points designated by the manufacture's manufacturer as alternate lifting points or configurations, these attachments shall be tested for strength as specified as in Section 28.3 and shall show no visual signs of damage that would affect its function.

27.11.2 Class III Victim Extrication Devices.

27.11.2.1

Class III Victim victim extrication devices shall be tested for strength as specified in Section 28.3 and shall not release the test torso. The device buckles and adjusting devices shall not slip more than 25 mm (1 in.), and the device shall show no visible signs of damage that would affect its function.

<u>27.11.2.1.1</u>

When the webbing slips at an angle, each edge of the webbing shall be measured and the average of the measurements shall not be more than 25 mm (1 in.).

27.11.2.2

Where Class III victim extrication devices include alternate D-rings and attachment points designated by the manufacturer as alternate lifting points or configurations, these attachments shall be tested for strength as specified as in Section 28.3 and shall show no visual signs of damage that would affect its function.

27.11.3

All victim extrication device product labels shall be tested for durability as specified in Section 28.10 and shall be legible and shall not be torn or otherwise damaged.

27.11.4

All metal hardware and hardware that includes metal parts shall be tested for corrosion resistance as specified in Section 28.8 and metals inherently resistant to corrosion, including but not limited to stainless steel, brass, copper, aluminum, and zinc, shall show no more than light surface-type surface-type corrosion or oxidation. Ferrous metals shall show no corrosion of the base metal. All hardware shall remain functional as specified in the manufacturer's operating instructions.

27.11.5

All fiber used in load-bearing materials and thread used in the construction of Class II and Class III victim extrication devices shall be tested for melting as specified ASTM E794, *Standard Test Method for Melting and Crystallization Temperatures by Thermal Analysis,* and shall have a melting point of not less than 204°C (400°F).

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:21:01 EDT 2020

Committee Statement

Committee This issue of slippage at angle was addressed for both Class II and Class III life safety **Statement:** harnesses, as well as ladder and escape belts. The static test for victim extrication devices is similar to the static test for harnesses and belts and can have same slippage issue. Therefore, this has been added to performance requirements for Class II and Class III Victim Extrication Devices.

Response SR-36-NFPA 2500-2020 Message:

Public Comment No. 132-NFPA 2500-2020 [Section No. 27.11]



27.14.4

All auxiliary equipment systems and system component <u>belay device</u> product labels shall be tested for legibility as specified in Section 28.10, shall be legible, and shall not be torn or otherwise damaged.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:24:03 EDT 2020

Committee Statement

CommitteeThe product category is belay devices and product category should be given in
this statement.Statement:SR-37-NFPA 2500-2020Message:SR-37-NFPA 2500-2020

Public Comment No. 130-NFPA 2500-2020 [Section No. 27.14.4]



Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:26:59 EDT 2020

Committee Statement

Committee Statement:Clarification of application sectionResponse Message:SR-39-NFPA 2500-2020

Public Comment No. 49-NFPA 2500-2020 [Section No. 28.2.1.1]



Committee Statement: Reversed change from first draft due to lack of testing between revisions. **Response Message:** SR-103-NFPA 2500-2020



Committee Statement: Incorrect section reference. This applies to carabiners not life safety rope. **Response Message:** SR-40-NFPA 2500-2020

Public Comment No. 59-NFPA 2500-2020 [Section No. 28.5.5.3]



28.6.4.2.1

Testing shall be conducted using a rope with the same NFPA designation as the device being tested, unless such rope is outside of the range of ropes that the manufacturer specifies for the safe and critical function of the device.

28.6.4.2.2

The rope used for testing shall meet the static rope requirements of CI 1801, *Performance Requirements for Low Stretch and Static Life Safety Rope.*

28.6.4.2.3

The device shall be attached to the rope according to the manufacturer's instructions.

28.6.4.3 Procedure A.

28.6.4.3.1

One end of the rope shall be anchored on to a tensile testing machine and the device shall be anchored to the other end of the rope. The specified deformation force shall be applied to the device at the normal attachment point at a rate of 25 mm/min \pm 5 mm/min (1 in./min \pm ¹/₄ in./min).

28.6.4.3.2

The specified deformation force shall be held for 30 seconds +1/-0 second, and then the tension shall be completely released over a maximum of 1 minute.

28.6.4.3.3

In the case of items that are designed to slip under high load, the rope shall be knotted or the device otherwise blocked to prevent slippage.

28.6.4.3.4

The device shall then be inspected for damage to the device or to the rope used for testing.

28.6.4.4 Procedure C.

28.6.4.4.1

The belay device shall be tested for function according to ASTM F2436, *Standard Test Method for Measuring the Performance of Synthetic Rope Rescue Belay Systems Using a Drop Test*, as modified for this standard.

28.6.4.4.2

A rope that is $300 \text{ cm} \pm 0.5 \text{ cm}$ (118.11 in. $\pm 0.2 \text{ in.}$) shall be used between the bowline testblock contact and the most distal point of the gripping portion of the belay assembly.

28.6.4.4.3

The attachment point of the sample on the test mass shall be raised to and released from a point no more than 305 mm (12 in.) horizontally from the anchorage.

28.6.4.4.4

A drop height of 100 cm \pm 0.5 cm (39.37 in. \pm 0.2 in.) shall be used.

28.6.4.4.5

The test mass for a technical-use belay device shall be 136 kg (300 lb).

28.6.4.4.6

The test mass for a general-use belay device shall be 272 kg (600 lb).

28.6.4.4.7

The parameters specified in 28.6.4.4.7.1 and <u>, 28.6.4.4.7.2</u>, and 28.6.4.4.7.3 shall be evaluated to determine pass/fail.

28.6.4.4.7.1

Maximum extension of the belay system shall be no more than $1 \text{ m} \pm 5 \text{ cm} (3.28 \text{ ft} \pm 1.97 \text{ in.})$.

28.6.4.4.7.2

Impact force shall be no more than 15 kN (3372 lbf).

28.6.4.4.7.3*

The device shall be able to release the load in a controlled manner.

28.6.5 Report.

28.6.5.1

The condition of the item and the rope shall be recorded after the deformation load has been applied.

28.6.5.2

For Procedure C, the device shall be reported as technical use or general use.

28.6.5.2.1

The extension of the belay system shall be recorded.

28.6.5.2.2

Any damage to the rope, the belay device, or system components shall be recorded.

28.6.5.2.3

Maximum impact force shall be recorded.

28.6.6 Interpretation.

One or more specimens failing this test shall constitute failing performance for the item being tested.

28.6.6.1

Failure of the rope at a load less than the specified rope minimum breaking strength shall constitute failing performance.

28.6.7 Specific Requirements for Testing Ascent Devices and Rope Grab Devices.

28.6.7.1*

Technical-use ascent devices and rope grab devices shall be tested at a load of 5 kN (1124 lbf) for Procedure A.

28.6.7.2

General-use ascent devices and rope grab devices shall be tested at a load of 11 kN (2500 lbf) for Procedure A.

28.6.8 Specific Requirements for Testing Descent Control Devices.

28.6.8.1

Escape-and Escape and technical-use descent control devices shall be tested at a load of 5 kN (1124 lbf) for Procedure A.

28.6.8.2

The device shall be attached to the rope according to the manufacturer's instructions in the locked-off mode of attachment.

28.6.8.3

General-use descent control devices shall be tested at a load of 11 kN (2500 lbf) for Procedure A.

28.6.9 Specific Requirements for Belay Devices.

Belay devices shall only be tested for Procedure C.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:31:26 EDT 2020

Committee Statement

Committee Added clarification that belays only undergo Procedure C testing. Also, added parameter **Statement:** in 28.6.4.4.7 since impact force is now being evaluated to determine pass/fail for both technical and general use belay devices.

Response SR-41-NFPA 2500-2020 Message:

Public Comment No. 117-NFPA 2500-2020 [Section No. 28.6]



28.7.6.1

The minimum breaking strength shall be determined by subtracting three standard deviations from the mean results of five samples from the same production lot and shall be reported to the nearest 0.1 kN (23 lbf). The minimum breaking strength shall be provided on the product label as specified in Section 5.1 Chapter 25.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:35:28 EDT 2020

Committee Statement

Committee Statement: Reference to Section 5.1 was incorrect. Updated reference to Chapter 25. **Response Message:** SR-42-NFPA 2500-2020

Public Comment No. 118-NFPA 2500-2020 [Section No. 28.7.6.1]



28.11.4.5.1

Any slippage of the descent control device on the rope shall then be measured.

28.11.5 Report.

The slip of the descent device at the specified load shall be reported.

28.11.6 Interpretation.

One or more specimens failing this test shall constitute failing performance for the item being tested.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Oct 26 14:37:54 EDT 2020

Committee Statement

CommitteeRevised order to follow standard format of test methods with application being
the first section.ResponseSR-43-NFPA 2500-2020Message:SR-43-NFPA 2500-2020

Public Comment No. 50-NFPA 2500-2020 [Section No. 28.11]



Selection, Care, and Maintenance Program (NFPA 1858)

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:00:00 EDT 2020

Committee Statement

Committee Statement: Added clarification to title now that NFPA 1858 is combined in NFPA 2500. **Response Message:** SR-106-NFPA 2500-2020

Public Comment No. 51-NFPA 2500-2020 [Chapter 29 [Title Only]]



Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Nov 30 11:47:46 EST 2020

Committee Statement

Committee Statement: Properly referencing standards. Response Message: SR-170-NFPA 2500-2020



30.1.1.1

Based on this analysis, the organization shall determine the level at which the organization s trains and responds to meet the requirements established by the AHJ for each technical rescue discipline.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:02:51 EDT 2020

Committee Statement

Committee Statement: Removed extraneous 's' in middle of sentence. **Response Message:** SR-107-NFPA 2500-2020

Public Comment No. 52-NFPA 2500-2020 [Section No. 30.1.1.1]

	30.17.1*
	The organization shall consider the following performance factors when making the evaluations:
	(1) Escape webbing, fire escape webbing, and equipment are available as individual NFPA 1983–compliant components, incorporated in the 2022 edition of this standard.
	(2) Escape webbing, fire escape webbing, and equipment are available as NFPA 1983– compliant escape <u>and fire escape</u> systems, <u>incorporated in the 2022 edition of this</u> <u>standard</u> .
	30.17.1.1
	The organization shall ensure that components, manufactured<u>escape</u> systems, and <u>fire</u> <u>escape systems, and</u> any other associated PPE are compatible based on the following:
	(1)* Fire escape webbing if the anticipated environment will expose the webbing to elevated temperatures
	(2)* Type of termination at the anchor end of the webbing
	(3) Compatibility with the descent control device
	(4)* Ability to control the descent with the type of gloves worn
	(5)* Ability of the escape webbing or escape system to absorb energy in a fall
	(6)* Whether the AHJ has determined that the body belay or similar method is to be used as the escape or bail-out method of the organization
Subm	itter Information Verification
Co Su	mmittee: FAE-SCE bmittal Date: Tue Oct 27 12:04:20 EDT 2020
Comn	nittee Statement
Co Sta Re Me	 This section is discussing escape and fire escape webbing, so system references have been changed to both escape systems and fire escape systems. sponse SR-108-NFPA 2500-2020 ssage:
Du	ublic Comment No. 121-NEPA 2500-2020 [Section No. 30 17 1]











32.1.2*

Life safety rope and equipment shall be evaluated by the user, <u>following the manufacturer's</u> <u>instructions</u>, for application of appropriate cleaning level after each use.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:30:53 EDT 2020

Committee Statement

Committee Statement: This assessment has added manufacturer's instructions regarding cleaning. **Response Message:** SR-113-NFPA 2500-2020

Public Comment No. 76-NFPA 2500-2020 [Section No. 32.1.2]

Second Revision No. 114-NFPA 2500-2020 [Section No. 32.1.3.3]

32.1.3.3

A member of the organization who has received training in the cleaning and decontamination of life safety rope and equipment shall be responsible for performing or managing decontamination of life safety rope and equipment.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:32:23 EDT 2020

Committee Statement

Committee
Statement:Added decontamination to this section. Cleaning and Decontamination are each
unique procedures.Response
Message:SR-114-NFPA 2500-2020

Public Comment No. 77-NFPA 2500-2020 [Section No. 32.1.3.3]



32.2.2

Organizations shall examine the manufacturer's label and user information for instructions on cleaning and drying that the manufacturer provided with the life safety rope and equipment for instructions on cleaning and drying. In the absence of manufacturer's instructions or manufacturer's approval of alternative procedures for the life safety rope and equipment, the routine cleaning and drying procedures provided in this section shall be used.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:35:50 EDT 2020

Committee Statement

Committee Statement: Reorganized the sentence for clarity. Response Message: SR-115-NFPA 2500-2020

Public Comment No. 78-NFPA 2500-2020 [Section No. 32.2.2]



Second Revision No. 117-NFPA 2500-2020 [Section No. 32.2.4.2]						
32.2.4.2						
Rope <u>or webbing</u> that has come into contact with blood or other body fluids shall be decontaminated using cleaners <u>detergents</u> or <u>cleaning agents</u> approved for removing biohazards according to the organization's protocols for decontaminating PPE.						
Submitter Information Verification						
Committee: FAE-SCE Submittal Date: Tue Oct 27 12:45:14 EDT 2020						
Committee Statement						
Committee Statement: This section should also reference webbing.						
Added the terms "detergents or cleaning agents" for consistency. Response Message: SR-117-NFPA 2500-2020						
Public Comment No. 80-NFPA 2500-2020 [Section No. 32.2.4.2]						





Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:53:17 EDT 2020

Committee Statement

Committee Statement: Revised to maintain consistency with the title of the document. **Response Message:** SR-120-NFPA 2500-2020

Public Comment No. 55-NFPA 2500-2020 [Section No. 33.1]





K.2 Chapter Order After Reorganization.

Table K.2 lists the revised order of the sections in Chapters 25 through 27 of NFPA 1983, incorporated in the 2022 edition of this standard.

Table K.2 Chapter Order After Reorganization

<u>Chapter 25 Labeling and</u> Information		<u>Chapter 26 Design and</u> <u>Construction Requirements</u>		<u>Chapter 27</u> <u>Performance</u> <u>Requirements</u>					
Section	<u>Title</u>	Section	<u>Title</u>	Section	<u>Title</u>				
Rope and Webbing Products									
1	Life Safety Rope	1	Life Safety Rope	1	Life Safety Rope				
2	Escape Rope	2	Escape Rope	2	Escape Rope				
3	Escape Webbing	3	Escape Webbing	3	Escape Webbing				
4	Fire Escape Rope	4	Fire Escape Rope	4	Fire Escape Rope				
5	Fire Escape Webbing	5	Fire Escape Webbing	5	Fire Escape Webbing				
6	Throwlines	6	Throwlines	6	Throwlines				
7	Moderate Elongation Laid Life-Saving Rope	7	Moderate Elongation Laid Life-Saving Rope	7	Moderate Elongation Laid Life-Saving Rope				
8	Manufacturer-Supplied Eye Termination	8	Manufacturer-Supplied Eye Termination	8	Manufacturer- Supplied Eye Termination				
Soft Goods									
9	Life Safety Harnesses	9	Life Safety Harnesses	9	Life Safety Harnesses				
10	Belts	10	Belts	10	Belts				
11	Victim Extrication Devices	11	Victim Extrication Devices	11	Victim Extrication Devices				
12	End-to-End Straps	12	End-to-End Straps	12	End-to-End Straps				
13	Multiple Configuration Straps	13	Multiple Configuration Straps	13	Multiple Configuration Straps				
	Auxiliary	Equipme	ent Hardware and Syste	ms					
14	Belay Devices	14	Belay Devices	14	Belay Devices				
15	Carabiners and Snap Links	15	Carabiners and Snap Links	15	Carabiners and Snap Links				
16	Descent Control Devices	16	Descent Control Devices	16	Descent Control Devices				
17	Escape Anchors	17	Escape Anchors	17	Escape Anchors				
18	Litters	18	Litters	18	Litters				
19	Portable Anchors	19	Portable Anchors	19	Portable Anchors				
20	Pulleys	20	Pulleys	20	Pulleys				
21	Rope Grabs and Ascending Devices	21	Rope Grabs and Ascending Devices	21	Rope Grabs and Ascending Devices				
22	Other Auxiliary Equipment	22	Other Auxiliary Equipment	22	Other Auxiliary Equipment				
23	Escape Systems	23	Escape Systems	23	Escape Systems				

<u>Chapter 25 Labeling and</u> Information		<u>Chapter 26 Design and</u> <u>Construction Requirements</u>		<u>Chapter 27</u> <u>Performance</u> <u>Requirements</u>	
Section	<u>Title</u>	Section	<u>Title</u>	Section	<u>Title</u>
24	Fire Escape Systems	24	Fire Escape Systems	24	Fire Escape Systems
25	Manufactured Systems	25	Manufactured Systems	25	Manufactured Systems

Note: Each .X has a .1 for Label Requirements and a .2 for User Information. So, for example, Life Safety Rope will have 25.1.1 for Life Safety Rope Label Requirements and 25.1.2 for Life Safety Rope User Information, and Belay Devices will have 25.14.1 for Belay Devices Label Requirements and 25.14.2 for Belay Devices User Information.

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Mon Nov 30 12:13:47 EST 2020

Committee Statement

Committee Statement: Properly referencing standards. Response Message: SR-173-NFPA 2500-2020



L.1.2.3 CENELEC Publications.

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

EN ISO 12402-5, Personal flotation devices — Part 5: Buoyancy aids (level 50) — Safety requirements, 2006 <u>2020</u>.

EN ISO 12402-4, Personal flotation devices — Part 4: Lifejackets, performance level 100 — Safety requirements, 2006 2020.

EN ISO 12402-3, Personal flotation devices — Part 3: Lifejackets, performance level 150 — Safety requirements, 2006 <u>2020</u>.

EN ISO 12402-2, Personal flotation devices — Part 2: Lifejackets, performance level 275 — Safety requirements, 2006 2020.

L.1.2.4 Cordage Institute Publications.

The Cordage Institute, 994 Old Eagle School Road, Suite 1019, Wayne, PA 19087-1866.

CI 1202, Terminology for Fiber Rope, 2013.

CI 1800, Test Methods for Life Safety Ropes and Accessory Cords for Life Safety Applications, 2017.

CI 1805, 3-Strand Life Safety Rope, Moderate Stretch, 2008 2018.

L.1.2.5 ICC Publications.

International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001.

National Building Code, 1999 [published by Building Officials and Code Administrators International (BOCA)].

Standard Building Code, 1999 [published by Southern Building Code Congress International (SBC)].

Uniform Building Code, 1997 [published by International Conference of Building Officials (ICBO)].

L.1.2.6 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, reconfirmed 2014.

ISO/IEC 17065, *Conformity assessment* — *Requirements for bodies certifying products, processes, and services*, 2012, reconfirmed 2018.

L.1.2.7 U.S. US Government Publications.

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

FAA Aeronautical Information Manual, October 12, 2017.

FEMA 154, Rapid Visual Screening of Buildings for Potential Seismic Hazards: A Handbook, 2002.

"FEMA National Response Framework," U.S. US Department of Homeland Security, 2016.

National Search and Rescue Plan of the United States, U.S. US Coast Guard National Search and Rescue Committee, 2007.

Title 21, Code of Federal Regulations, Part 7, Subpart C, "Recalls (Including Product Corrections) — Guidance on Policy, Procedures, and Industry Responsibilities."

Title 29, Code of Federal Regulations, Part 1910.120, "Hazardous Waste Operations and Emergency Response (HAZWOPER)."

Title 29, Code of Federal Regulations, Part 1910.146, "Permit-Required Confined Spaces."

Title 29, Code of Federal Regulations, Part 1926, Subpart P, Appendix A, "Excavations, Soil Classification."

Title 29, Code of Federal Regulations, Part 1926, Subpart P, Appendix B, "Excavations, Sloping and Benching."

Title 29, Code of Federal Regulations, Part 1926, Subpart P, Appendix C, "Excavations, Timber Shorting for Trenches."

Title 29, Code of Federal Regulations, Part 1926.651, "Specific Excavation Requirements."

Title 29, Code of Federal Regulations, Part 1926.652, Subpart P, "Excavations."

Title 29, Code of Federal Regulations, Part 1926.800, "Underground Construction."

Title 30, Code of Federal Regulations, Part 49.2, "Availability of Mine Rescue Teams."

Title 42, Code of Federal Regulations, Part 84, Subpart E, "Quality Control."

United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, U.S. US Coast Guard National Search and Rescue Committee, 2000.

Urban Search and Rescue Structures Specialist: Field Operations Guide, U.S. US Army Corps of Engineers, Urban Search and Rescue Program, February 2009.

L.1.2.8 Other Publications.

IMO/ICAO, *International Aeronautical and Maritime Search and Rescue Manual: Vol. I–III*, International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO), London/Montreal, 2013.

"Policy 105: Personnel Guidelines," Mountain Rescue Association Policies, revised June 1999.

L.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.

The following list provides additional sources for information on the operations and training of technical rescue incidents.

L.2.1 NFPA Publications.

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

NFPA 101[®], *Life Safety Code*[®], 2018 <u>2021</u> edition.

NFPA 1600^(R), Standard on Continuity, Emergency, and Crisis Management, 2019 edition.

NFPA 1620, Standard for Pre-Incident Planning, 2015 2020 edition.

NFPA 1989, Standard on Breathing Air Quality for Emergency Services Respiratory *Protection*, 2019 edition.

NFPA 5000[®], Building Construction and Safety Code[®], $\frac{2018}{2021}$ edition.

L.2.2 ICC Publications.

International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, DC 20001.

International Building Code

International Existing Building Code

International Fire Code

International Fuel Gas Code

International Mechanical Code

International Plumbing Code

International Residential Code

L.2.3 U.S. US Government Publications.

U.S. <u>US</u> Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

BIPS 08, *Field Guide for Building Stabilization and Shoring Techniques*, , U.S. <u>US</u> Department of Homeland Security: Science and Technology, October 2011.

Catastrophic Incident Search and Rescue Addendum to the National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, National Search and Rescue Committee, November 2009.

FA-152, *New Techniques in Vehicle Extrication*, Federal Emergency Management Agency (FEMA) and United States Fire Administration (USFA), September 1994.

Land Search and Rescue Addendum to the National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, National Search and Rescue Committee, November 2011.

National Incident Management System, U.S. US Department of Homeland Security, 2008.

NOAA Diving Manual, U.S. US Department of Commerce, Best Publishing Company, 2013.

OSHA Technical Manual, available online from the U.S. US Department of Labor at http://www.osha.gov.

Structural Specialist:Shoring Operations Guide, U.S. US Army Corp of Engineers, Urban Search & Rescue Program, November 2012.

Urban Search & Rescue:Shoring Operations Guide, U.S. US Army Corp of Engineers, Urban Search & Rescue Program, July 2012.

U.S. US Navy Diving Manual, available online from the U.S. US Navy at http://www.usu.edu.

L.2.4 Other Resource Material.
ADC, *Consensus Standards for Commercial Diving Operations,* 3rd edition, American National Standards Institute, New York, NY, 1991.

Auerbach, Paul S., Editor, *Wilderness Medicine: Management of Wilderness and Environmental Emergencies,* 7th Edition, Elsevier, Inc., St. Louis, MO, 2015.

Barsky, Steven M., *Diving in High Risk Environments,* 3rd edition, Dive Rescue International, Inc., Fort Collins, CO, 1999.

Bechel, Les, and Ray, Slim, *River Rescue*, 2nd edition, Appalachian Mountain Books, Boston, 1989.

Benkoski, M., Monticino, M., and Weisinger, J., "A Survey of the Search Theory Literature," *Naval Research Logistics*, 1991.

Brown, G. J., and Crist, G. S. *Confined Space Rescue*. Thomson Delmar Learning, Publishers, Clifton Park, NY, 1999.

Brown, Michael G., *Engineering Practical Rope Rescue Systems*, Delmar-Thompson Learning Publishers, Clifton Park, NY, 2000.

CMC Rescue, *Confined Space Entry and Rescue: A Training Manual,* 2nd edition revised, CMC Rescue, Inc., Santa Barbara, CA, 2012.

CMC Rescue, *Confined Space Entry and Rescue Field Guide*, 2nd Edition, CMC Rescue, Inc., Santa Barbara, CA, 2007.

CMC Rescue, *CMC Rope Rescue Field Guide*, 4th Edition revised, CMC Rescue, Inc., Santa Barbara, CA. 2013.

CMC Rescue Application for iPhone and android platforms, CMC Rescue, Inc., Santa Barbara, CA. 2011-2012.

Cooper, D., Editor, *Fundamentals of Search and Rescue*. NASAR and Jones & Bartlett Publishers, Chantilly, VA, 2005.

Cooper, D. C., *The application of search theory to land search: The adjustment of probability of area*, private publication, Cuyahoga Falls, OH, 2000.

Cooper, D. C., and Frost, J. R., *Selected Inland Search Definitions*, published by the author, Cuyahoga Falls, OH, 2000.

Cooper, D.C., Frost, J.R., and Robe, R.Q., *Compatibility of Land SAR Procedures with Search Theory*. Prepared for U.S. Department of Homeland Security, U.S. Coast Guard Operations, Potomac Management Group, Inc., Washington, D.C., 2003.

Dive Rescue International, *Dive Rescue Specialist*, 4th Edition, Dive Rescue International, Fort Collins, CO, 2007.

Dive Rescue International, *Public Safety Diving*, 2nd Edition, Dive Rescue International, Fort Collins, CO, 2011.

Dive Rescue International, *Med-Dive*, 2nd Edition, Dive Rescue International, Fort Collins, CO, 2011.

Dive Rescue International, *Ice Rescue*, 3rd Edition, Dive Rescue International, Fort Collins, CO, 2012.

Dive Rescue International, *Ice Rescue Trainer*, 4th Edition, Dive Rescue International, Fort Collins, CO, 2012.

Dive Rescue International, *Swift Water Rescue*, 2nd Edition, Dive Rescue International, Fort Collins, CO, 2013.

Downey, Ray, The Rescue Company, Fire Engineering, Saddle Brook, NJ, 1992.

Dunn, Vincent, *Collapse of Burning Buildings, A Guide to Fireground Safety,* Fire Engineering, New York, 1988.

Fasulo, David J., Self Rescue, Chockstone Press, Evergreen, CO, 1996.

Field, Ernest, K., Editor, *Mountain Search and Rescue Operations,* Grand Teton Natural History Association, Moose, WY, 1969.

Frank, J., Editor, *CMC Rope Rescue Manual,* 4th edition revised, CMC Rescue, Inc., Santa Barbara, CA, 2013.

Frost, J. R., Principles of search theory, part I: detection. *Response*, 17(2), pp. 1–7, 1999a.

Frost, J. R., Principles of search theory, part II: effort, coverage, and POD. *Response*, 17(2), pp. 8–15, 1999b.

Frost, J. R., Principles of search theory, part III: probability density distributions. *Response*, 17(3), pp. 1–10, 1999c.

Frost, J. R., Principles of search theory, part IV: optimal effort allocation. *Response*, 17(3), pp. 11–23, 1999d.

Frost, J. R., *What's missing from ground search theory*. Fairfax, VA, Soza and Company, Ltd., 1998.

Gargan, James B., Trench Rescue, 2nd edition, Mosby Lifeline, St. Louis, MO, 1996.

International Fire Service Training Association [IFSTA], *Fire Service Search and Rescue*, 7th edition, IFSTA, Fire Protection Publications, Stillwater, OK, 2005.

International Fire Service Training Association [IFSTA], *Principles of Vehicle Extrication*, 3rd edition, IFSTA, Fire Protection Publications, Stillwater, OK, 2010.

Hendricks, Walt "Butch," and Zaferes, Andrea, *Surface Ice Rescue*, Fire Engineering Books & Videos, Tulsa, OK, 1999.

Jackson, F., and Bielmaier, M., *Standard Operating Procedures and Guidelines Manual*, Dive Rescue International, Inc., Fort Collins, CO, 2002.

Jackson, F., Carney, J., and White, L., *Public Safety Diver Survival*, International Association of Dive Rescue Specialists, Fort Collins, CO, 2002.

Koester, R. J., *Lost Person Behavior: A Search and Rescue Guide on Where to Look – for Land, Air and Water*, dbS Productions, Charlottesville, VA, 2008.

Koester, R., Cooper, D., Frost, J., and Robe, Q., *Sweep Width Estimation for Ground Search and Rescue*, Prepared for U.S. Department of Homeland Security, U.S. Coast Guard Operations, Potomac Management Group, Inc., Washington, D.C., 2004.

Koopman, B. O., *Search and Screening: General Principles with Historical Applications*, Pergamon, New York, NY, 1980.

LaValla, P., Stoffel, R., and Jones, A. S. G., *Search Is an Emergency: A Text for Managing Search Operations,* 4th edition Revised, Emergency Response Institute, Olympia, WA, 1996.

Linton, S., Rust, D., and Orusa, S., *Diver Rescue Specialist Training Manual,* Dive Rescue Inc./International, Fort Collins, CO, 2008.

Lipke, R., *Technical Rescue Riggers Guide,* 2nd Edition. Conterra, Inc., Bellingham, WA, 2009.

Long, John, Climbing Anchors, Chockstone Press, Evergreen, CO, 1993.

Long, John, and Gaines, Bob, *More Climbing Anchors,* Chockstone Press, Evergreen, CO, 1996.

Lonsdale, Mark V., SRT Diver, Valore Books, Los Angeles, CA, 1999.

Maryland Fire and Rescue Institute, *Rescue Technician – Student Manual*, University of Maryland, College Park, MD, 1998.

Mickle, J. L., "The Mechanics of a Trench Cave-In," *Agri-book Magazine/Drainage Contractor*, 1991.

National Association for Search and Rescue. *Managing the Lost Person Incident*, 2nd edition, author, Chantilly, VA, 2007.

National Oceanic and Atmospheric Administration, *NOAA Manual*, 4th edition, U.S. Department of Commerce, Washington, DC, 2001.

Norman, John, Fire Officer's Handbook of Tactics, Fire Engineering, Saddle Brook, NJ, 1991.

NYS Office of Fire Prevention & Control, *Confined Space Awareness and Safety* (Lesson Plan and Student Manual), Albany, NY.

NYS Office of Fire Prevention & Control, *Confined Space Rescue* (Lesson Plan and Student Manual), Albany, NY.

O'Connell, J. *Emergency Rescue Shoring Techniques*, Pennwell Publishers, Tulsa, OK, 2005.

O'Connell, J. *Collapse Operations for First Responders*, Pennwell Publishers, Tulsa, OK, 2011.

Ohio Department of Natural Resources, Division of Watercraft, *River Rescue*, Instructional Materials Laboratory, Ohio State University, 1980.

Padgett, Allen, and Smith, Bruce, *On Rope,* 2nd edition, National Speleological Society, Huntsville, AL, 1998.

Parnell, J., Editor, *Manual of U.S. Cave Rescue Techniques*, National Cave Rescue Commission, Huntsville, AL, 2006.

Pendley, T. *Technical Rescue Field Operations*, Fourth Edition. Self Published, Peoria, AZ, 2003.

Pendley, Tom, *The Essential Technical Rescue Field Operations Guide*, 4th Edition, Desert Rescue Research, Phoenix, AZ, 2011.

Ray, Slim, Swiftwater Rescue, CFS Press, Asheville, NC, 1997.

Raleigh, D. Knots & Ropes for Climbers. Stackpole Books, Mechanicsburg, PA, 1998.

Rekus, John F., *Complete Confined Spaces Handbook,* Lewis Publishers, Boca Raton, FL, 1994.

Roco Pocket Guide: Confined Space & Rope Rescue, Roco Rescue, Inc., Baton Rouge, LA, 2011.

Roop, M., Wright, R., and Vines, T., *Confined Space and Structural Rope Rescue,* Mosby, St. Louis, MO, 1998.

Sargent, Chase N., Confined Space Rescue, Fire Engineering, Saddle Brook, NJ, 2000.

Soza and Company, Ltd., and U.S. Coast Guard, *The Theory of Search: a Simplified Explanation*, revised edition, published by the authors, Fairfax, VA, 1998.

Stanevich, R. L., and Middleton, D. C., "An Exploratory Analysis of Excavation Cave-in Fatalities," *Professional Safety*, 1988.

Syrotuck, W. G., *Analysis of Lost Person Behavior: An Aid to Search Planning*, Syrotuck, J. A., Editor, Arner Publications, Westmoreland, NY, 1976.

Taylor, A., and Cooper, D. C., *Fundamentals of Mantracking: The Step-by-Step Method,*. 3rd edition, Skyhorse Publishing, 2014.

Thrun, Robert, *Prusiking*, National Speleological Society, Huntsville, AL, 1973.

United States Lifesaving Association, *Guidelines for Training & Standards of Aquatic Rescue Response Teams,* Huntington Beach, CA, 1996.

Veasey, D., McCormick, L., Hilyer, B., Oldfield, K., and Hansen, S., *Confined Space Entry and Emergency Response*, McGraw Hill, Hightstown, NJ, 2002.

Viking, *Diving in Contaminated Water Database Manual*, Trelleborg-Viking, Trelleborg, Sweden, 2001.

Vines, T., and Hudson, S., *High Angle Rescue Techniques*, 4th Edition, Elsevier, St. Louis, MO, 2012.

Worsing, Robert A., Jr., MD, *Basic Rescue and Emergency Care,* American Academy of Orthopaedic Surgeons, Park Ridge, IL, 1990.

Young, Christopher S., and Wehgring, John, *Urban Search: Managing Missing Persons Searches in the Urban Environment*, dbS Productions, Charlottesville, VA, 2007.

L.3 References for Extracts in Informational Sections. (Reserved)

Submitter Information Verification

Committee: FAE-SCE Submittal Date: Tue Oct 27 12:58:02 EDT 2020

Committee Statement

Committee Statement: Changes reflect updates to editions or titles of referenced publications. **Response Message:** SR-122-NFPA 2500-2020

Public Comment No. 70-NFPA 2500-2020 [Chapter L]