



**NFPA Technical Committee on
Special Operations Protective
Clothing and Equipment
and NFPA Technical Committee
on Technical Search and Rescue**

**NFPA 2500
Second Draft Meeting
AGENDA
October 26-27, 2020 FAE-SCE
November 9-10, 2020 TEC-AAA**

October 26-27, 2020/FAE-SCE

1. Meeting called to order at 11 a.m. eastern time
2. Introduction: Jeremy Metz, Chair
3. Introduction of Committee members and guests
4. NFPA staff liaison presentation
5. Approval of minutes from last meeting
6. Act on 2500 PCs
7. Old business
8. New business
9. Next meeting
10. Adjourn

November 9-10, 2020/TEC-AAA

1. Meeting called to order at 9:00 a.m. eastern time
2. Introduction: Ben Waller, Chair
3. Introduction of Committee members and guests
4. NFPA staff liaison presentation
5. Approval of minutes from last meeting
6. Act on 2500 PCs

7. Old business
8. New business
9. Next meeting
10. Adjourn

TECHNICAL COMMITTEE ON SPECIAL OPERATIONS PROTECTIVE CLOTHING AND EQUIPMENT

First Draft Meeting, January 27-31, 2020

MINUTES

1. Chair Jeremy Metz called the meeting to order at 1:00 p.m.
2. Members and guests introduced themselves.

Members in Attendance:

Jeremy Metz, Chair
Stephen Legros, Interim Secretary
Joe Arrington
Brian Beechner
Rick Braccolo
Dan Hudson
Richard Garber
Diane Hess
Richard Kesler
Kim Klaren
Loui McCurley

John Rihn
John McKently
Kim Schoppa
Cedric Smith
Beverly Wooten Stutts
Jay Tarley
Craig Mignogno
Jamey Brads
Joshua Ingram
James Murray
Michael Wixted, NFPA Staff Liaison

Guests in Attendance:

Wayne Chapman-CMC Rescue
Jack Reall-Spec Rescue
JC Colorado-Fire Innovations
Chris James-UL
Travis Shipman-Sterling Rope

3. Opening Remarks

Discussed membership updates and changes

Chairman Metz thanked the Task Group that met December 2019, in Lakewood, CO. Appreciates the work done and this will assist in efficiency this week.

4. Review and Approval of Minutes from Previous Meeting

The minutes of the Second Draft meeting July 16-17, 2019 were approved.

5. Michael Wixted provided the NFPA Staff Liaison Report.

6. NFPA 2500 Public Inputs were reviewed and First Revisions were made

- A. Chapters 1-3 of 2500 were assigned to SPCE
- B. NFPA 1983
 - i. Escape anchor task group report- Beverly Wooten-Stutts
 - a. Update on Escape Anchor Task Group – consensus is that no changes are required in the current edition, thus no TIA is proposed.

7. Old Business

8. New Business

A. Task group created to review performance requirements and associated test methods for harnesses and belts.

- b. Task Group Members: Cedric Smith (Chair), Beverly Wooten-Stutts, JC Colorado, Rick Braccolo, Jim Murray, Dan Hudson, Loui McCurley
- c. Task Group Objectives:
 - i. Review and make recommendations for change (if any) via public comment of current performance requirements of Class III and Class II harnesses, and escape and ladder bets
 - ii. Review and make recommendations for change (if any) via public comment of current test mass as it relates to end-user application
 - 1. Determine if the same test mass should be utilized for harnesses and belts
 - iii. Review and make recommendations for change (if any) via public comment for the drop test as it relates to drop height
 - iv. Review and make recommendations for change (if any) via public comment for the drop test as it relates to peak impact force
 - v. Review and make recommendations for change (if any) via public comment for the drop test as it relates to the drop tower specifications

B. An After-Action survey will be distributed by NFPA regarding 2500 First Draft Meeting.

9. Other items

Chairman Metz reminded committee members to make sure to vote when First Draft ballots are distributed in April.

NFPA Liaison, Mike Wixted, indicated that all project documents will now be hosted on the NFPA 2500 DocInfo pages and not the previous individual DocInfo pages.

10. Next Meeting

Second Draft, NFPA 2500 (1983/1858), November 8-14, 2020 Orlando, FL.

11. The meeting adjourned at 3:34 p.m.

NFPA Technical Committee on Technical Search and Rescue

Frist Draft Meeting NFPA 2500 (1670)

January 29-31, 2020

Orlando, FL.

TC Members

Ben Waller

George Bassier

Francis Brennan

Alberto Burrero

Donald Cooper

John Dennis

Joseph Gannon

Stephen Geraghty

Bruce Hodges

Ihor Holowczynsky

Colin Legrow

John McKently

Ralph McNemar

Brandi Philips

Peter Schechter

Dustin Spires

Richard Wright

Joshua Fleming- Alternate

Justin Fox- Alternate

David Jernigan- Alternate

William Simmes- Alternate

Cedric Smith- Alternate

Ken Holland- NFPA Staff

Valerie Zivras- NFPA Staff

Maeghan Connor- NFPA Staff

Guests

Jeff Young- IAFF

Wayne Chapman

Wednesday

Meeting called to order by Chair Ben Waller at 08:15 hours; a sign in sheet and roster was circulated to members in attendance.

Remarks were offered by the Chair including a moment of silence for a former committee member and colleague from the Alabama State Fire College.

A lengthy and comprehensive presentation followed by Ken Holland our NFPA staff Liaison. This included a detailed review of the standards consolidation process, and specifics on each step and expectations of TC members.

NFPA 2500 will consist of several documents grouped under one umbrella document and to date includes NFPA 1983 and 1858 at this time.

The five-year revision cycle process was defined and explained, including the concept of "committee week" meetings to facilitate interaction by various document teams and stakeholders.

At the completion of the TC training presentation Chair Waller adjourned for lunch from 11:55 until 13:10

The meeting was called back to order at 13:10 hours, at which time the Chair introduced the members of the NFPA 1983 committee and their Chair who made some remarks to the group.

Opportunities for collaboration were discussed and invited by both groups; the visitors left the room to return to their own project after each introduced themselves.

A discussion ensued regarding specific elements of the Rope Rescue section of the document and specific capabilities defined therein. This focused on the need to potentially ADD a specialty level for rope rescue specialty operations.

The discussion was halted by the Chair and at his request tabled to move forward with our tasking. It will be taken up at a later time for further consideration.

Work began to review section/chapter specific changes made by the NFPA 1983 group that affected NFPA 1670. This included changes to definitions, and several sections of administrative chapters. Discussion over the removal of the term "Equivalency" from the document definitions ensued; while appropriate for a piece of equipment or hardware it raises the issue of alternate means of completing a task no longer being an acceptable option. This issue was tabled by the Chair for follow up.

A recommendation was made for TC members to carefully review remaining/existing NFPA 1670 definitions to check for accuracy, relevancy, and currency given the age of the document at this point.

The committee began its work on resolving the public inputs and developing first revisions.

Meeting adjourned for the day at 16:45 with an expected resumption of the meeting on Thursday at 8:00.

Thursday

Meeting called to order at 08:05 hours by the Chair.

Committee continued their work on developing first revisions through the morning.

The Chair tasked the group with performing a document comparison of each chapter of 1006 and 1670 to identify any inconsistencies or issues that need to be corrected to maintain a correlation between the documents. Each chapter included a pdf of the 1006 new language and a word doc of the proposed 1670 document. Changes and notes to the word doc and returned to NFPA editorial staff for group review upon completion. The list of assignments was created and maintained by the Chair.

Materials to be reviewed after lunch and meeting reconvened after task completion for the review process to commence.

The committee adjourned for lunch at 11:55 and asked the task groups to resume their work on the review of NFPA 1006 and NFPA 1670.

The full committee came back together at 15:15 to continue their work on developing first revisions as an entire committee.

The chair halted additional work and adjourned the meeting for the day at 17:52 hours.

Friday

The chair called the meeting to order just after 08:00 hours, and provided inspirational guidance of his plan to complete our remaining tasking this date.

The chair established a task group (Wright, Schechter, Legow) to try and correct prerequisite issues and also cover needed clarity affecting multiple skill sets and disciplines; presented and discussed.

The chair directed the committee to perform a review of their already revised chapter assignments to ensure that no prerequisite issues identified during the discussion needed to be addressed. This review to occur over lunch and any needed actions to be taken before adjournment.

The chair adjourned the meeting for lunch at 12:00 hours – reconvened at 13:00 hours.

The full committee continued their work on developing first revisions based on reports back from the task groups.

The chair and staff liaison discussed next steps in the process, and task groups were assigned to review and validate the work in terra-view with respect to accuracy, conflicts, and overall clarity for the end user.

The full committee had a lengthy and spirited discussion regarding the future state of NFPA 1670 and NFPA 1006 and by vote of the committee members present, they want to have NFPA 1670, as part of NFPA 2500, to complete its revision cycle. Once it is finished and published, they voted to have the

material that was formally known as NFPA 1670 to be pulled out of NFPA 2500 and to be combined with NFPA 1006 when NFPA 1006 has its meeting as part of group 5 of the consolidation project. The end result would be a consolidated document of NFPA 1670 and NFPA 1006 at the end of the group 5 revision cycle. This has been conveyed to NFPA and will be evaluated for future consideration.

The chair directs task groups to begin work as soon as possible and to ensure that all work product is submitted as a public comment prior to the closing deadlines listed for the document.

Task group assignments were developed and the assignment list maintained by the chair; additional tasking and assignments will follow the conclusion of this meeting via email.

The second draft meeting is currently scheduled for November 2020 at the same location this meeting was held. Confirmed dates will be sent to the full committee.

The chair thanked all participants and NFPA staff for their work over the last several days.

The meeting was adjourned at 16:00 hours.

Address List No Phone

10/12/2020
Chris Farrell
FAE-SCE

Special Operations Protective Clothing and Equipment Fire and Emergency Services Protective Clothing and Equipment

Jeremy Metz Chair West Metro Fire Rescue 433 South Allison Parkway Lakewood, CO 80226 Alternate: Jon Saito	U 8/9/2011 FAE-SCE	Karen E. Lehtonen Secretary LION Group, Inc. 7200 Poe Avenue, Suite 400 Dayton, OH 45414 Alternate: Ashley M. Scott	M 10/1/1999 FAE-SCE
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Technical Search and Rescue

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Justin Fox Alternate Dive Rescue International 201 North Link Lane Fort Collins, CO 80524 Principal: Joseph P. (Pete) Gannon	SE 08/17/2015 TEC-AAA	Timothy Joseph Gleason Alternate City of Miami Fire Department 16131 SW 42nd Terrace Miami, FL 33185 Principal: Jonathan B. Kohan	U 10/29/2012 TEC-AAA
David Craig Jernigan Alternate Panama City Fire Department 1009 Alabama Avenue Lynn Haven, FL 32444 Wright Rescue Solutions, Inc. Principal: Richard Wright	SE 12/06/2019 TEC-AAA	Johnny A. Mason Alternate Great Oaks Public Safety 200 Scarlet Oaks Drive Cincinnati, OH 45241 National Volunteer Fire Council Principal: Ralph McNemar	U 08/11/2020 TEC-AAA
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Technical Search and Rescue

Brian A. Wade	E 08/17/2018	Ken Holland	10/24/2016
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Public Comment No. 1-NFPA 2500-2020 [Global Input]

CC Note on Section 1.4

The CC directs the TC to clarify the application of equivalency among the chapters in NFPA 2500.

Additional Proposed Changes

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
2500_A2021_FAE_SCE_CCNote.pdf	2500_A2021_FAE_AAC_CCNote for FAE_SCE	

Statement of Problem and Substantiation for Public Comment

This Public Comment appears as CC Note No. 1 in the First Draft Report in Section 1.4.

Statement: Currently, an equivalency statement appears in ch. 4, which applies only to NFPA 1670. The clarification would make sure it is not applied to the entire document.

Related Item

- 2500_A2021_FDR

Submitter Information Verification

Submitter Full Name: CC on FAE-AAC
Organization: NFPA
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jul 31 12:21:58 EDT 2020
Committee: FAE-SCE

Correlating Committee Note No. 1-NFPA 2500-2020 [Section No. 1.4]

Submitter Information Verification

Committee: FAE-AAC

Submittal Date: Tue Jun 09 12:58:38 EDT 2020

Committee Statement

Committee Statement: The CC directs the TC to clarify the application of equivalency among the chapters in NFPA 2500.

Currently, an equivalency statement appears in ch. 4, which applies only to NFPA 1670. The clarification would make sure it is not applied to the entire document.

FR-51-NFPA 2500-2020

Ballot Results

This item has passed ballot

x

- 27 Eligible Voters
- 8 Not Returned
- 19 Affirmative All
- 0 Affirmative with Comments
- 0 Negative with Comments
- 0 Abstention

X

Not Returned

Area, James B.
Barker, Roger L.
Farley, Edmund
Hosea, Thomas M.
Johnston, Ronald
Legendre, Jeff
Mauti, Benjamin
Van Lent, William A.

X

Affirmative All

Allen, Jason L.
Arrington, Joseph
Fargo, Cristine Z.
Hess, Diane B.
Lancaster, Beth C.
Lehtonen, Karen E.

Matthews, David G.
McKenna, Michael F.
Menard, Douglas
Morris, John H.
Newsom, Amanda H.
Sanders, Stephen R.
Stull, Jeffrey O.
Swan, Rick L.
Szalajda, Jonathan V.
Tutterow, Jr., Robert D.
Varner, Bruce H.
Weise, Dick
Winer, Harry P.



Public Comment No. 3-NFPA 2500-2020 [Section No. 1.2]

1.2 Purpose.

The purpose of this standard is to specify minimum requirements for the following:

- (1) Identifying and establishing levels of functional capability for conducting operations at technical search and rescue incidents while minimizing threats to rescuers
- (2) Establishing minimum levels of performance for life safety rope, escape and fire escape rope, escape and fire escape webbing, water rescue throwlines, moderate elongation laid life-saving rope, manufacturer supplied eye terminations, life safety harnesses, belts, victim extrication devices, ~~litters~~, ~~escape webbing~~, ~~escape systems~~, 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, escape and fire escape systems, manufactured systems and auxiliary equipment for emergency services personnel
- (3) Establishing a program for life safety rope and equipment to reduce the risks and hazards when used for emergency services

Statement of Problem and Substantiation for Public Comment

Modifying the paragraph to include all types of equipment covered by NFPA 1983 (contained within NFPA 2500). This also is consistent with 24.1.1.1.

Related Item

- FR50

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Street Address:
City:
State:
Zip:
Submittal Date: Mon Sep 21 08:23:00 EDT 2020
Committee: FAE-SCE



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

2.2 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 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, 2021 edition.

NFPA 1091, *Standard for Traffic Incident Management Personnel Professional Qualifications*, 2019 edition.

NFPA 1500, *Standard on Fire Department Occupational Safety, Health, and Wellness Program*, 2018 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System and Command Safety*, 2014 2020 edition.

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

Statement of Problem and Substantiation for Public Comment

Correcting editions of NFPA publications.

Related Item

- PI2

Submitter Information Verification

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Submittal Date: Mon Sep 21 08:43:03 EDT 2020

Committee: FAE-SCE



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

2.3.2 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*, 2019.

ASTM D4966, *Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)*, 2012, reapproved 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 E794, *Standard Test Method for Melting and Crystallization Temperatures by Thermal Analysis*, 2006, reapproved 2018.

ASTM F1740, *Standard Guide for Inspection of Nylon, Polyester, or Nylon/Polyester Blend, or Both Kernmantle Rope*, 1996, reapproved 2018.

ASTM F1772, *Standard Specification for Harnesses for Rescue and Sport Activities*, 2017.

ASTM F1956, *Standard Specification for Rescue Carabiners*, ~~2013~~ 2020.

ASTM F2436, *Standard Test Method for Measuring the Performance of Synthetic Rope Rescue Belay Systems Using a Drop Test*, 2014, reapproved 2019.

ASTM F2821, *Standard Test Methods for Basket Type Rescue Litters*, 2015, reapproved 2020.

ASTM F2894, *Standard Test Method for Evaluation of Materials, Protective Clothing and Equipment for Heat Resistance Using a Hot Air Circulating Oven*, 2019.

Statement of Problem and Substantiation for Public Comment

update to referenced publications editions.

Note to TC, verify changes to ASTM F1956 do not impact requirements of this standard.

Related Item

- PI1

Submitter Information Verification

Submitter Full Name: Karen Lehtonen

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Submittal Date: Mon Sep 21 08:45:13 EDT 2020

Committee: FAE-SCE



Public Comment No. 84-NFPA 2500-2020 [New Section after 3.3]

Add the following definitions to Chapter 3 related to Cleaning. These definitions appear in NFPA 1851, 2020

Body Fluids

Care

Cleaning

Decontamination

Soiling

Statement of Problem and Substantiation for Public Comment

These definitions would be helpful related to NFPA 1858 sections and the Cleaning requirements.

Related Item

- FR29

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:19:05 EDT 2020

Committee: FAE-SCE



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

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 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 for emergency services personnel.

Statement of Problem and Substantiation for Public Comment

Snap Links were inadvertently omitted from the list of applicable items.

Related Item

- FR143

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Sep 21 08:54:17 EDT 2020
Committee: FAE-SCE



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

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 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 for emergency services personnel.

Statement of Problem and Substantiation for Public Comment

Snap Links were inadvertently omitted from the list of applicable items.

Related Item

- FR143

Submitter Information Verification

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Submittal Date: Mon Sep 21 08:55:46 EDT 2020
Committee: FAE-SCE



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

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.

Statement of Problem and Substantiation for Public Comment

Snap Links were inadvertently omitted from the list of applicable items.

Related Item

- FR143

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Sep 21 08:56:47 EDT 2020
Committee: FAE-SCE



Public Comment No. 71-NFPA 2500-2020 [Section No. 24.2.8]

24.2.8

The certification organization shall not issue any new certifications to the 2017 edition of NFPA 1983 on or after the NFPA effective date for the 2022 edition, ~~which is effective date plus 12 months~~.

Statement of Problem and Substantiation for Public Comment

The effective date plus 12 months should not apply to when the certification organization issues new certifications. The certification organization should cease to offer to new certifications upon the effective date of the standard.

Related Item

- FR149

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Oct 05 10:59:47 EDT 2020
Committee: FAE-SCE



Public Comment No. 17-NFPA 2500-2020 [Section No. 24.4.5]

24.4.5

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 as applicable are at least as specified for the products identified in - ~~25.1.4~~ ; ~~Life Safety Rope Label~~ Section 25 Labeling and Information Requirements.

Statement of Problem and Substantiation for Public Comment

This requirement in the annual verification requirements should not just apply to Life Safety Rope it should apply to all items covered by this standard.

Related Item

- FR148

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Sep 21 12:12:06 EDT 2020
Committee: FAE-SCE



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

[Empty comment box]

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

<u>Product</u>	<u>Test</u>	<u>Time</u>
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 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
Litters	Litter strength test — vertical	Alternating years with horizontal

<u>Product</u>	<u>Test</u>	<u>Time</u>
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 Heat 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

Statement of Problem and Substantiation for Public Comment

Flame resistance is given twice for tests required for loading bearing textiles used in life safety harnesses with optional flame resistance. One of should be revised to Heat Resistance. This was an inadvertent duplication and omission.

Related Item

- PI-5, FR-150

Submitter Information Verification

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Submittal Date: Fri Oct 09 20:11:41 EDT 2020

Committee: FAE-SCE



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

[Empty comment box]

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

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

<u>Moderate elongation laid life-saving rope</u>	<u>Diameter, rope breaking, and elongation</u>	<u>Every year</u>
<u>Moderate elongation laid life life-saving rope fibers</u>	<u>Melting and crystallization temperatures by thermal analysis</u>	<u>Every year</u>
<u>Victim extrication devices</u>	<u>Static</u>	<u>Every 2 years</u>
<u>Litters</u>	<u>Litter strength test — vertical</u>	<u>Alternating years</u>

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

Statement of Problem and Substantiation for Public Comment

This is not all new text as indicated in the track changes. The changes are as follows:

Snap links are added to the row with Carabiners

Ascending devices are added to the row with Rope Grabs

The table needs Manufactured Systems added there is no row, the requirements also need to be added for this item.

All of these additions are added for clarity and consistency in the standard.

Related Item

- FR150

Submitter Information Verification

Submitter Full Name: Karen Lehtonen

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Street Address:**City:****State:****Zip:****Submittal Date:** Mon Sep 21 09:24:17 EDT 2020**Committee:** FAE-SCE**Public Comment No. 72-NFPA 2500-2020 [Section No. 24.5.3.1]****24.5.3.1**

~~One~~ A minimum of one sample of each compliant product shall be inspected and evaluated to the design requirements specified in Chapter 26.

Statement of Problem and Substantiation for Public Comment

There may be instances where a certification organization may need more than 1 sample for evaluation of the design requirements.

Related Item

- FR150

Submitter Information Verification**Submitter Full Name:** Karen Lehtonen**Organization:** LION Group, Inc.**Street Address:****City:****State:****Zip:****Submittal Date:** Mon Oct 05 11:06:09 EDT 2020**Committee:** FAE-SCE



Public Comment No. 18-NFPA 2500-2020 [Section No. 24.5.3.2]

24.5.3.2

~~One~~ A minimum of one sample of each compliant product and component shall be tested for overall performance as specified in Chapter 27 and as required by Table 24 . 5.1 .

Statement of Problem and Substantiation for Public Comment

This requirement does not make sense. In many cases more than one sample is required for testing. This is a suggested revision. Alternately 24.5.3.1 and 24.5.3.2 may not be needed.

Related Item

- FR150

Submitter Information Verification

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

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, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR22

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:29:30 EDT 2020
Committee: FAE-SCE



Public Comment No. 19-NFPA 2500-2020 [Section No. 25.1.2.5]

25.1.2.5

The manufacturer shall provide information for the user that additional information regarding life safety rope can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information.

Related Item

- FR75

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:11:33 EDT 2020
Committee: FAE-SCE



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

25.2.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:33:56 EDT 2020
Committee: FAE-SCE



Public Comment No. 20-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, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be 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.

Related Item

- FR72

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:15:13 EDT 2020
Committee: FAE-SCE



Public Comment No. 87-NFPA 2500-2020 [Section No. 25.3.2.1]

25.3.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Committee: FAE-SCE



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

25.3.2.3

The manufacturer shall provide information for the user that additional information regarding escape webbing can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR78

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:17:47 EDT 2020
Committee: FAE-SCE



Public Comment No. 88-NFPA 2500-2020 [Section No. 25.4.2.1]

25.4.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:35:51 EDT 2020
Committee: FAE-SCE



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

25.4.2.3

The manufacturer shall provide information for the user that additional information regarding fire escape rope can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR80

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:19:16 EDT 2020
Committee: FAE-SCE



Public Comment No. 89-NFPA 2500-2020 [Section No. 25.5.2.1]

25.5.2.1

The manufacturer of fire escape webbing that is certified as being compliant with NFPA 1983 shall furnish the purchaser with at least use criteria, inspection procedures, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:36:39 EDT 2020
Committee: FAE-SCE



Public Comment No. 23-NFPA 2500-2020 [Section No. 25.5.2.3]

25.5.2.3

The manufacturer shall provide information for the user that additional information regarding fire escape webbing can be found in NFPA 1500, NFPA 2500, NFPA 1858 and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 and NFPA 1858 should be included in the user manual list of standards providing additional information

Related Item

- P11

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:20:19 EDT 2020
Committee: FAE-SCE



Public Comment No. 83-NFPA 2500-2020 [Section No. 25.5.2.3]

25.5.2.3

The manufacturer shall provide information for the user that additional information regarding fire escape webbing can be found in NFPA 1500- ~~and~~ , NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

reference to NFPA 1858 needs to be added just like it is being added in all other user requirements for NFPA 1983 product. This was an inadvertently omitted for fire escape webbing.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 128-NFPA 2500-2020 [Section No. 25.8.2.9]	
Public Comment No. 129-NFPA 2500-2020 [Section No. 25.19.2.3]	

Related Item

- PI 78, FR-71

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:11:05 EDT 2020
Committee: FAE-SCE



Public Comment No. 90-NFPA 2500-2020 [Section No. 25.6.2 [Excluding any Sub-Sections]]

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:37:34 EDT 2020
Committee: FAE-SCE



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

25.6.2.1

The manufacturer shall provide information for the user that additional information regarding throwlines can be found in NFPA [1500](#), [NFPA 2500](#), [NFPA 1858](#) and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 1500 and NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR123

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:22:12 EDT 2020
Committee: FAE-SCE



Public Comment No. 91-NFPA 2500-2020 [Section No. 25.7.2.1]

25.7.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:38:23 EDT 2020
Committee: FAE-SCE



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

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, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR124

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 92-NFPA 2500-2020 [Section No. 25.8.2.1]

25.8.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Oct 05 16:39:12 EDT 2020
Committee: FAE-SCE



Public Comment No. 128-NFPA 2500-2020 [Section No. 25.8.2.9]

25.8.2.9

The manufacturer shall provide information for the user that additional information regarding manufacturer-supplied eye termination can be found in NFPA 1500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

reference to NFPA 1858 needs to be added just like it is being added in all other user requirements for NFPA 1983 product. This was an inadvertently omitted for manufacturer-supplied eye terminations.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 83-NFPA 2500-2020 [Section No. 25.5.2.3]	
Public Comment No. 129-NFPA 2500-2020 [Section No. 25.19.2.3]	

Related Item

- FR-71

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:38:45 EDT 2020

Committee: FAE-SCE



Public Comment No. 26-NFPA 2500-2020 [Section No. 25.8.2.9]

25.8.2.9

The manufacturer shall provide information for the user that additional information regarding manufacturer-supplied eye termination can be found in NFPA 1500, NFPA 2500, NFPA 1858 and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 and NFPA 1858 should be included in the user manual list of standards providing additional information

Related Item

- FR127

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:25:40 EDT 2020
Committee: FAE-SCE



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

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, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Committee: FAE-SCE



Public Comment No. 27-NFPA 2500-2020 [Section No. 25.9.2.3]

25.9.2.3

The manufacturer shall provide information for the user that additional information regarding life safety harnesses can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:27:08 EDT 2020
Committee: FAE-SCE



Public Comment No. 94-NFPA 2500-2020 [Section No. 25.10.2.1]

25.10.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- Fr85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Committee: FAE-SCE



Public Comment No. 28-NFPA 2500-2020 [Section No. 25.10.2.3]

25.10.2.3

The manufacturer shall provide information for the user that additional information regarding belts can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR86

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Committee: FAE-SCE



Public Comment No. 95-NFPA 2500-2020 [Section No. 25.11.2.1]

25.11.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Committee: FAE-SCE



Public Comment No. 29-NFPA 2500-2020 [Section No. 25.11.2.4]

25.11.2.4

The manufacturer shall provide information for the user that additional information regarding victim extrication devices can be found in NFPA [1500](#), [NFPA 2500](#), [NFPA 1858](#) and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 1500 and NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR130

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:29:15 EDT 2020
Committee: FAE-SCE



Public Comment No. 96-NFPA 2500-2020 [Section No. 25.12.2.1]

25.12.2.1

The manufacturer of end-to-end straps that are certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Oct 05 16:42:50 EDT 2020
Committee: FAE-SCE



Public Comment No. 30-NFPA 2500-2020 [Section No. 25.12.2.3]

25.12.2.3

The manufacturer shall provide information for the user that additional information regarding end-to-end straps can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR96

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:30:21 EDT 2020
Committee: FAE-SCE



Public Comment No. 120-NFPA 2500-2020 [Section No. 25.13.1.11]

25.13.1.11

In addition to the compliance statement specified in 25.13.1.10, the following information shall be provided on the product label:

MINIMUM BREAKING STRENGTH OF _____ kN- MBS- .

MBS AND RATING ARE DETERMINED USING A BASKET (U) CONFIGURATION. IN ADDITION, THIS STRAP HAS A MINIMUM

BREAKING STRENGTH OF

_____ kN IN A CHOKER CONFIGURATION

_____ kN WHEN PULLED END TO END.

Statement of Problem and Substantiation for Public Comment

Need to have at least a period after "MINIMUM BREAKING STRENGTH OF __kN and "MBS AND RATING ARE DETERMINED USING A BASKET (U) CONFIGURATION..." These are separate statements and when the two run together is confusing.

Related Item

- FR 131

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Submittal Date: Fri Oct 09 20:35:45 EDT 2020

Committee: FAE-SCE



Public Comment No. 97-NFPA 2500-2020 [Section No. 25.13.2.1]

25.13.2.1

The manufacturer of multiple configuration straps that are certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:43:43 EDT 2020
Committee: FAE-SCE



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

25.13.2.3

The manufacturer shall provide information for the user that additional information regarding multiple configuration straps can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR97

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:31:40 EDT 2020
Committee: FAE-SCE



Public Comment No. 98-NFPA 2500-2020 [Section No. 25.14.2.1]

25.14.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Committee: FAE-SCE



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

25.14.2.3

The manufacturer shall provide information for the user that additional information regarding auxiliary equipment can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR98

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:32:42 EDT 2020
Committee: FAE-SCE



Public Comment No. 99-NFPA 2500-2020 [Section No. 25.15.2.1]

25.15.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:45:21 EDT 2020
Committee: FAE-SCE



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

25.15.2.3

The manufacturer shall provide information for the user that additional information regarding carabiners and snap links can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR99

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:34:08 EDT 2020
Committee: FAE-SCE



Public Comment No. 100-NFPA 2500-2020 [Section No. 25.16.2.1]

25.16.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:46:54 EDT 2020
Committee: FAE-SCE



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

25.16.2.3

The manufacturer shall provide information for the user that additional information regarding descent control devices can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR100

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:35:35 EDT 2020
Committee: FAE-SCE



Public Comment No. 101-NFPA 2500-2020 [Section No. 25.17.2.1]

25.17.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Committee: FAE-SCE



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

25.17.2.3

The manufacturer shall provide information for the user that additional information regarding escape anchors can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR102

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 102-NFPA 2500-2020 [Section No. 25.18.2.1]

25.18.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:48:35 EDT 2020
Committee: FAE-SCE



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

25.18.2.3

The manufacturer shall provide information for the user that additional information regarding litters can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR105

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:37:58 EDT 2020
Committee: FAE-SCE



Public Comment No. 103-NFPA 2500-2020 [Section No. 25.19.2.1]

25.19.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:49:30 EDT 2020

Committee: FAE-SCE



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

25.19.2.3

The manufacturer shall provide information for the user that additional information regarding portable anchors can be found in NFPA 1500- ~~and~~ , NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

reference to NFPA 1858 needs to be added just like it is being added in all other user requirements for NFPA 1983 product. This was an inadvertently omitted for portable anchors.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 128-NFPA 2500-2020 [Section No. 25.8.2.9]	
Public Comment No. 83-NFPA 2500-2020 [Section No. 25.5.2.3]	

Related Item

- FR-71

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:43:27 EDT 2020
Committee: FAE-SCE



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

25.19.2.3

The manufacturer shall provide information for the user that additional information regarding portable anchors can be found in NFPA 1500, NFPA 2500, NFPA 1858 and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 and NFPA 1858 should be included in the user manual list of standards providing additional information

Related Item

- FR341

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 104-NFPA 2500-2020 [Section No. 25.20.2.1]

25.20.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Committee: FAE-SCE



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

25.20.2.3

The manufacturer shall provide information for the user that additional information regarding pulleys can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR110

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:40:28 EDT 2020
Committee: FAE-SCE



Public Comment No. 105-NFPA 2500-2020 [Section No. 25.21.2.1]

25.21.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Mon Oct 05 16:51:12 EDT 2020
Committee: FAE-SCE



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

25.21.2.3

The manufacturer shall provide information for the user that additional information regarding rope grabs and ascending devices can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR113

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:41:30 EDT 2020
Committee: FAE-SCE



Public Comment No. 106-NFPA 2500-2020 [Section No. 25.22.2.1]

25.22.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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

25.22.2.3

The manufacturer shall provide information for the user that additional information regarding auxiliary equipment can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR116

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 13:42:47 EDT 2020
Committee: FAE-SCE



Public Comment No. 107-NFPA 2500-2020 [Section No. 25.23.2.1]

25.23.2.1

The manufacturer of an escape system that is certified as being compliant with this standard shall furnish the purchaser with at least use criteria, inspection procedures, cleanng procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:53:10 EDT 2020
Committee: FAE-SCE



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

25.23.2.3

The manufacturer shall provide information for the user that additional information regarding escape systems can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- P11

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 108-NFPA 2500-2020 [Section No. 25.24.2.1]

25.24.2.1

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

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

Submitter Information Verification

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Submittal Date: Mon Oct 05 16:54:08 EDT 2020
Committee: FAE-SCE



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

25.24.2.2

The manufacturer shall provide information for the user regarding at least the following issues:

- (1) Inspecting the fire escape system periodically according to the manufacturer's inspection procedure
- (2) Removing the fire escape system from service if the equipment does not pass inspection or if there is any doubt about the safety or serviceability of the equipment
- (3) Maintaining the fire escape system in accordance with the manufacturer's instructions where metal components are subjected to corrosion or deterioration
- (4) ~~Removing the~~ Taking the fire escape system ~~from~~ out of service if the equipment is subjected to an impact load
- (5) ~~Not exposing any software component of the fire escape system to flame or high temperature and carrying the equipment where~~ Carrying the equipment, where feasible, in a location where it will be protected ~~as it could melt or burn and fail if exposed~~ from exposure to flame or high temperature and high temperatures to avoid degradation of the materials.
- (6) Repairing the fire escape system only in accordance with the manufacturer's instructions
- (7) Keeping the user instructions/information after they are separated from the fire escape system and retaining them in a permanent record; copying the user instructions/information and keeping the copy with the equipment
- (8) Referring to the user instructions/information before and after each use
- (9) Cautioning that, if the instructions/information are not followed, the user could suffer serious consequences

Statement of Problem and Substantiation for Public Comment

This is the language that was accepted by the committee in PI 239, FR 140. Change for #4 was accepted by committee but remained unchanged in document after processing. New language was accepted by committee for #5 also. However, it was inadvertently omitted and the old language remained. This is for fire escape systems so statement was revised to make more applicable for heat and flame exposure.

Related Item

- FR 140, PI 239

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Committee: FAE-SCE



Public Comment No. 42-NFPA 2500-2020 [Section No. 25.24.2.3]

25.24.2.3

The manufacturer shall provide information for the user that additional information regarding fire escape systems can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- P11

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 131-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 25.44 25.1.2.3 5.

25.25.1.2.1

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

25.25.1.2.2

Manufactured systems shall have the following compliance statement:

MEETS NFPA 1983 (2022 ED).

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 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 ($\frac{5}{64}$ 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 ($\frac{5}{64}$ in.) high.

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, 2022 EDITION. 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 ($\frac{5}{64}$ 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

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, THE FOLLOWING ADDITIONAL COMPONENTS MUST BE USED IN CONJUNCTION WITH THIS MANUFACTURED SYSTEM:

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

Statement of Problem and Substantiation for Public Comment

Revision was approved by committee to 25.25.1.2.4 but did not make it into document, 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.

Related Item

- FR-133

Submitter Information Verification

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Committee: FAE-SCE



Public Comment No. 109-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, cleaning procedures, maintenance procedures, and retirement criteria for the product.

Statement of Problem and Substantiation for Public Comment

The sections covering NFPA 1858 require the user to reference Manufacturer's instructions on cleaning. Therefore this needs to be added to the requirements in the user instructions for NFPA 1983.

Related Item

- FR85

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Submittal Date: Mon Oct 05 16:55:00 EDT 2020
Committee: FAE-SCE



Public Comment No. 43-NFPA 2500-2020 [Section No. 25.25.2.3]

25.25.2.3

The manufacturer shall provide information for the user that additional information regarding manufactured systems can be found in NFPA 1500, NFPA 2500, NFPA 1858, and NFPA 1983.

Statement of Problem and Substantiation for Public Comment

NFPA 2500 should be included in the user manual list of standards providing additional information

Related Item

- FR121

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:47:23 EDT 2020
Committee: FAE-SCE



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

26.1.1 Life Safety Rope Design Requirements.

26.1.1.1* – _ _

Life safety rope shall be designed and designated as General-Use or Technical Use.

26.1.1.2*

Life safety rope shall be constructed of virgin fiber.

26.1.1.2 – 3 _

Life safety rope shall be of block creel construction.

26.1.1.3 – 4 _

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

26.1.1.4 – 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.

If accepted the * on A.26.1.1.1 needs to be revised to A.26.1.1.2

Statement of Problem and Substantiation for Public Comment

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.

Related Item

- FR23

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Submittal Date: Tue Sep 22 14:19:57 EDT 2020
Committee: FAE-SCE



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

26.2.1.4 Where Escape Rope is a component of equipment with electric-circuit 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, III, 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.

Statement of Problem and Substantiation for Public Comment

This is a requirement for Life Safety Rope and Moderate Elongation Laid Life-Saving Rope, not sure if this was an oversight for Escape Ropes/Webbing or if it does not apply. The committee should consider for the escape products.

Related Item

- FR23

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Submittal Date: Mon Sep 21 10:57:07 EDT 2020
Committee: FAE-SCE



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

26.3.1.4 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 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.

Statement of Problem and Substantiation for Public Comment

This is a requirement for Life Safety Rope and Moderate Elongation Laid Life-Saving Rope, not sure if this was an oversight for Escape Ropes/Webbing or if it does not apply. The committee should consider for the escape products.

Related Item

- FR23

Submitter Information Verification

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Submittal Date: Mon Sep 21 11:06:57 EDT 2020
Committee: FAE-SCE



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

26.4.1.4

Where fire escape 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 Division 1, Groups E, F and G hazardous locations.

Statement of Problem and Substantiation for Public Comment

This is requirement for Life Safety Rope and Moderate Elongation Laid Life-Saving Rope, not sure if this was an oversight for Escape Ropes/Webbing or if it does not apply. The committee should consider this for the escape products.

Related Item

- FR23

Submitter Information Verification

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Submittal Date: Mon Sep 21 11:14:18 EDT 2020
Committee: FAE-SCE



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

26.5.1.4

Where fire escape webbing is a component of equipment with electric-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, 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.

Statement of Problem and Substantiation for Public Comment

This is a requirement for Life Safety Rope and Moderate Laid-Saving Rope, nor sure if this was an oversight for Escape Ropes/Webbing or if it does not apply. The committee should consider for the escape products.

Related Item

- FR23

Submitter Information Verification

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Submittal Date: Mon Sep 21 11:26:08 EDT 2020
Committee: FAE-SCE



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

26.8.1.1

Manufacturer-supplied eye termination shall include rope, escape rope, webbing or escape webbing that has been tested to and certified to the requirements of rope or escape webbing as specified in this standard.

Statement of Problem and Substantiation for Public Comment

Either list all ropes/webbing or list rope/webbing generically as I believe this applies to all types of rope and webbing (escape and fire escape).

Related Item

- FR23

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Submittal Date: Mon Sep 21 11:57:27 EDT 2020

Committee: FAE-SCE



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

26.9.2 Optional Requirements for Flame-Resistant Life Safety Harnesses.

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

Statement of Problem and Substantiation for Public Comment

Adding text to clarify that this is a requirement for flame-resistant life safety harnesses.

Related Item

- FR23

Submitter Information Verification

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Submittal Date: Mon Sep 21 12:03:12 EDT 2020
Committee: FAE-SCE



Public Comment No. 16-NFPA 2500-2020 [Section No. 26.10.2]

26.10.2 Optional Requirements for Flame-Resistant Belts.

Sewing thread utilized in the construction of flame-resistant belts shall be made of inherently flame-resistant fiber.

Statement of Problem and Substantiation for Public Comment

Adding clarity that this is a requirement for flame-resistant belts.

Related Item

- FR-23

Submitter Information Verification

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Submittal Date: Mon Sep 21 12:06:13 EDT 2020
Committee: FAE-SCE



Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]

26.12.1.2

End-to-end straps shall be ~~designed by~~ designated by the manufacturer for its intended use and design load as either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]	
Public Comment No. 124-NFPA 2500-2020 [Section No. 26.14.1.2]	
Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]	
Public Comment No. 126-NFPA 2500-2020 [Section No. 26.19.1.2]	
Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]	

Related Item

- FR 200

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:12:19 EDT 2020
Committee: FAE-SCE



Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]

26.13.1.2

Multiple configuration straps shall be ~~designed by the~~ designated by the manufacturer for its intended use and design load as either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]	
Public Comment No. 124-NFPA 2500-2020 [Section No. 26.14.1.2]	
Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]	
Public Comment No. 126-NFPA 2500-2020 [Section No. 26.19.1.2]	
Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]	

Related Item

- FR-199

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:19:09 EDT 2020
Committee: FAE-SCE



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

26.14.1.2

Belay devices shall be designated ~~as being designed for~~ by the manufacturer for its intended use and design load as either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]	
Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]	
Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]	
Public Comment No. 126-NFPA 2500-2020 [Section No. 26.19.1.2]	
Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]	

Related Item

- FR-197

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:22:02 EDT 2020
Committee: FAE-SCE



Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]

26.15.1.2

Carabiners and snap links shall be designated ~~as being designed for~~ by the manufacturer for its intended use and design load as either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]	
Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]	
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]	
Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]	

Related Item

- FR-205

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:25:33 EDT 2020
Committee: FAE-SCE



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

26.19.1.2

Portable anchors shall be designated ~~as being designed for either~~ by the manufacturer for its intended use and design load as either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]	
Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]	
Public Comment No. 124-NFPA 2500-2020 [Section No. 26.14.1.2]	
Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]	
Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]	

Related Item

- FR-207

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:28:34 EDT 2020
Committee: FAE-SCE



Public Comment No. 127-NFPA 2500-2020 [Section No. 26.21.1.2]

26.21.1.2

Rope grab and ascending devices shall be designated ~~as being designed for either~~ by the manufacturer for its intended use and design load as being either technical use or general use.

Statement of Problem and Substantiation for Public Comment

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

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 125-NFPA 2500-2020 [Section No. 26.15.1.2]	
Public Comment No. 124-NFPA 2500-2020 [Section No. 26.14.1.2]	
Public Comment No. 123-NFPA 2500-2020 [Section No. 26.13.1.2]	
Public Comment No. 122-NFPA 2500-2020 [Section No. 26.12.1.2]	
Public Comment No. 126-NFPA 2500-2020 [Section No. 26.19.1.2]	

Related Item

- FR-209

Submitter Information Verification

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Submittal Date: Fri Oct 09 21:33:06 EDT 2020
Committee: FAE-SCE



Public Comment No. 44-NFPA 2500-2020 [Section No. 26.23.1.2]

26.23.1.2

The escape system shall comprise a flexible lifeline (e.g., rope/webbing/cable); a descent control device and a Escape systems shall be comprised of the following:

1. A flexible lifeline, including but not limited to rope, webbing or cable)
2. A descent control device
3. A connector from the system to the user, not to include the harness; and a
4. A means of attaching the system to an anchoring point- (e.g., such as an escape anchor) , that is capable of supporting human loads.

26.23.1.3 The individual components of the escape system shall meet the respective design requirements of the individual components as specified in this standard.

Statement of Problem and Substantiation for Public Comment

Revised for clarity. The paragraph as proposed was difficult to read and follow.

Related Item

- P11

Submitter Information Verification

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Submittal Date: Tue Sep 22 13:53:57 EDT 2020
Committee: FAE-SCE



Public Comment No. 45-NFPA 2500-2020 [Section No. 26.24.1.2]

26.24.1.2

The fire ~~Fire~~ escape system shall comprise a flexible lifeline (e.g., rope/webbing/cable); a descent control device ~~and a~~ systems shall be comprised of the following:

1. A flexible lifeline, including but not limited to rope, webbing or cable
2. A descent control device
3. A connector from the system to the user, not to include the harness; ~~and a~~
4. A means of attaching the system to an anchoring point- (e.g., such as an escape anchor) , that is capable of supporting human loads.

26.24.1.3 The individual components of the fire escape system shall meet the respective design requirements of the individual components as specified in this standard.

Statement of Problem and Substantiation for Public Comment

Revision provides clarity to the requirements. The current language is difficult to read.

Related Item

- FR328

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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Submittal Date: Tue Sep 22 14:09:19 EDT 2020
Committee: FAE-SCE



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

27.6.2*

Throwlines shall be tested for size as specified in Section 7.1 of CI 1800, *Test Methods for Life Safety Rope and Accessory Cords for Life Safety Applications*, and shall have a diameter of 7 mm ($1\frac{1}{64}$ in.) or greater but less than or equal to 9.5 mm ($\frac{3}{8}$ in.). For the purpose of reporting, the calculated diameter of throwlines shall be rounded to the nearest 0.5 mm ($\frac{1}{64}$ in.).

Statement of Problem and Substantiation for Public Comment

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

Related Item

- should be same wording "or equal to" for maximum diameter as FR 166

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Submittal Date: Fri Oct 02 12:39:58 EDT 2020

Committee: FAE-SCE



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

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-

The Class II harness buckles and adjusting devices shall not slip more than 25mm (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~~ Harness webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

In re-writing the section in FR 374, the requirement for slippage inadvertently dropped off so needs to be 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 needs to be revised from "average of two" to "average of the measurements." Also, 27.9.1.1.3 needs to change from word "Harnessed" to "Harness."

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 64-NFPA 2500-2020 [Section No. 27.9.2.1]	
Public Comment No. 65-NFPA 2500-2020 [Section No. 27.10.1]	
Public Comment No. 66-NFPA 2500-2020 [Section No. 27.10.2]	

Related Item

- FR 374, FR 383, FR 384, FR 385

Submitter Information Verification

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Submittal Date: Fri Oct 02 15:16:45 EDT 2020
Committee: FAE-SCE



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

27.9.1.1.3

~~Harnessed~~ Harness webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

Correction of typo

Related Item

- FR374

Submitter Information Verification

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Submittal Date: Tue Sep 22 14:55:26 EDT 2020
Committee: FAE-SCE



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

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

The Class III harness buckles and adjusting devices shall not slip more than 25mm (1 in.)

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~~ Harness webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

In re-writing section 27.9.2.1, the requirement for slippage inadvertently dropped off so needs to be 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 needs to be revised from “average of two” to “average of the measurements.” Also, 27.9.2.1.3 needs to change from word “Harnessed” to “Harness.”

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 63-NFPA 2500-2020 [Section No. 27.9.1.1]	same problem with Class II and Class III verbiage
Public Comment No. 65-NFPA 2500-2020 [Section No. 27.10.1]	
Public Comment No. 66-NFPA 2500-2020 [Section No. 27.10.2]	

Related Item

- FR 383, FR 374, FR 384, FR 385

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

27.9.2.1.3

~~Harnessed~~ Harness webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

Correction of typo

Related Item

- FR383

Submitter Information Verification

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

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 25mm (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~~ Belt webbing 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.

Statement of Problem and Substantiation for Public Comment

In re-writing section 27.10.1, the requirement for slippage inadvertently dropped off so needs to be 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 needs to be revised from “average of two” to “average of the measurements.” Also, 27.10.1.3 needs to change from word from “Harnessed” to “Belt.”

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 63-NFPA 2500-2020 [Section No. 27.9.1.1]	same issues with verbiage
Public Comment No. 64-NFPA 2500-2020 [Section No. 27.9.2.1]	same issues with verbiage
Public Comment No. 66-NFPA 2500-2020 [Section No. 27.10.2]	

Related Item

- FR 384, FR 385, FR 374, FR 383

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

27.10.1.3

Harnessed- Belt webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

This section applies to belts not harnesses

Related Item

- FR384

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

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 25mm (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~~ Belt 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.

Statement of Problem and Substantiation for Public Comment

In re-writing section 27.10.2, the requirement for slippage inadvertently dropped off so needs to be 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 needs to be revised from “average of two” to “average of the measurements.” Also, 27.10.2.3 needs to change from word from “Harnessed” to “Belt.”

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 63-NFPA 2500-2020 [Section No. 27.9.1.1]</u>	same issues with verbiage
<u>Public Comment No. 64-NFPA 2500-2020 [Section No. 27.9.2.1]</u>	same issues with verbiage
<u>Public Comment No. 65-NFPA 2500-2020 [Section No. 27.10.1]</u>	same issues with verbiage

Related Item

- FR 385, FR 384, FR 374, FR 383

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

27.10.2.3

~~Harnessed~~ Belt webbing shall show no visible signs of damage that would affect its function.

Statement of Problem and Substantiation for Public Comment

Section applies to belts not harnesses

Related Item

- FR385

Submitter Information Verification

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Public Comment No. 132-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.

27.11.1.1.1

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 25mm (1 in.)

27.11.1.2

Where Class II victim extrication devices include alternate D-rings and attachment points designated by the manufacture's 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 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.

27.11.2.1.1

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 25mm (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 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).

Statement of Problem and Substantiation for Public Comment

This issue of slippage at angle was addressed for both Class II and Class III life safety 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 should be added to performance requirements for Class II and Class III Victim Extrication Devices.

Related Item

- FR-374, FR-383, FR-384, FR-385

Submitter Information Verification

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

27.14.4

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

Statement of Problem and Substantiation for Public Comment

The product category is belay devices and product category should be given in this statement.

Related Item

- FR-365

Submitter Information Verification

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Public Comment No. 73-NFPA 2500-2020 [Section No. 27.24.7]

27.24.7

All ~~fiber and~~ sewing thread used in the construction of fire escape systems 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).

Statement of Problem and Substantiation for Public Comment

There is an inconsistency in what this test applies to in the various products.
27.8.3 (Mfg Supplied Eye Termination) only applies this requirement to thread
27.9.6.3 (Harnesses) only applies this requirement to thread
27.10.7.3 (Belts) only applies this requirement to thread
27.24.7 (Fire Escape Systems) applies this requirement to thread and fiber
MSET, Harnesses and Belts have a requirement for fiber melting temperature to be 400F.
If this is accepted then the 400F fiber melting requirement needs to be added to FES. If all of these should be 500F then MEST, Harness and Belt requirements require revision.

Related Item

- FR1

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Public Comment No. 61-NFPA 2500-2020 [Section No. 27.24.8]

27.24.8

~~Escape~~ Fire escape systems shall be tested for maximum impact force as specified in Section 28.14 and shall have the maximum impact force not exceed 8.0 kN (1798 lbf), shall not damage the rope or device, and shall remain functional.

Statement of Problem and Substantiation for Public Comment

This paragraph is regarding fire escape systems, not escape systems.

Related Item

- FR 156

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Committee: FAE-SCE



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

28.2.1.1

This test shall apply to life safety rope, moderate elongation laid life-saving rope, escape rope, fire escape rope, throwline, escape webbing, fire escape webbing and manufacturer-supplied eye termination.

Statement of Problem and Substantiation for Public Comment

Clarification of application section

Related Item

- FR25

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

28.5.5.3

The carabiner 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 - 25.4.15.1 - ~~Life Safety Rope~~ Carabiner and Snap Link Label Requirements.

Statement of Problem and Substantiation for Public Comment

Incorrect section reference. This applies to carabiners not life safety rope.

Related Item

- FR221

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

28.6 Manner of Function Tensile Test.

28.6.1 Application.

28.6.1.1

This test shall apply to ascending devices, rope grab devices, descent control devices, and belay devices.

28.6.1.2

Modifications to this test method for testing ascending devices and rope grab devices shall be as specified in 28.6.7.

28.6.1.3

Modifications to this test method for testing descent control devices shall be as specified in 28.6.8.

28.6.1.4

Modifications to this test method for testing belay devices shall be as specified in 28.6.4 ~~9~~ 4.

28.6.2 Samples.

28.6.2.1

Samples for conditioning shall be whole items.

28.6.2.2

Samples shall be conditioned as specified in 28.1.2.

28.6.2.3

Samples shall be new and in unused condition and shall conform in all respects to the manufacturer's specifications for the model to be tested.

28.6.3 Specimens.

28.6.3.1

Specimens shall be whole items.

28.6.3.2

A total of three specimens shall be tested.

28.6.3.3

Each specimen shall be tested to Procedure A.

28.6.4 Procedure.

28.6.4.1

Testing shall be conducted in the "manner of function" for the item being tested.

28.6.4.2

Testing shall be conducted using both the smallest and largest diameter life safety rope specified by the device manufacturer for testing.

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 ¼ in./min).

28.6.4.3.2

The specified deformation force shall be held for 30 seconds \pm 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 cm \pm 0.5 cm (118.11 in. \pm 0.2 in.) shall be used between the bowline test–block 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~~ , 28.6.4.4.7.2, 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 m \pm 5 cm (3.28 ft \pm 1.97 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 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.

28.6.9.1

Belay devices shall only be tested for Procedure C.

Statement of Problem and Substantiation for Public Comment

Need clarification that belays only undergo Procedure C testing. Currently, implies that Procedure A is also required. Also, added parameter 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.

Related Item

- FR-231

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

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 5.4~~ - product's respective section in Chapter 25.

Statement of Problem and Substantiation for Public Comment

Reference to Section 5.1 is incorrect. Reference should be to product's appropriate section in Chapter 25.

Related Item

- FR 239

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

28.11 Holding Test.

28.11.1 – Application

28.11.1.1

This test shall apply to descent control devices.

28.11.2 Samples.

28.11.4 2 .1

Samples for conditioning shall be whole items.

28.11.4 2 .2

Samples shall be conditioned as specified in 28.1.2.

28.11.4 2 .3

Samples shall be new and in unused condition and shall conform in all respects to the manufacturer's specifications for the model being tested.

28.11.2 – 3 _ Specimens.

28.11.2 3 .1

Specimens shall be whole items.

28.11.2 3 .2

Three specimens shall be tested.

28.11.3 – 4 _ Procedure.

28.11.3 4 .1

~~The holding test shall apply to descent control devices.~~

~~28.11.3.2 –~~

Testing shall be conducted using both the smallest and largest diameter life safety rope specified by the descent control device manufacturer for testing.

28.11.3 4 .3 – 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*.

28.11.4. ~~3-4~~ – _ _

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

28.11.3 4 .5 – 4 _

One end of the rope shall be anchored on to a tensile testing machine and the descent control device with passive brake deployed shall be anchored to the other end of the rope. A 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 ¼ in./min).

28.11.3 4 .5 4 .1

The force for escape and technical use descent control devices shall be 1.35 kN (300 lbf) and for general use descent control devices shall be 2.7 kN (600 lbf).

28.11.3 4 .6 – 5 _

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.

28.11.3 4 .6 5 .1

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

28.11.4 – 5 _ Report.

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

28.11.5 – 6 _ Interpretation.

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

Statement of Problem and Substantiation for Public Comment

Revised order to follow standard format of test methods with application being the first section.

Related Item

- FR271

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

Selection Care and Maintenance Program (NFPA 1858)

Statement of Problem and Substantiation for Public Comment

Adding what the program is about seems to make more sense here now that NFPA 1858 is combined in NFPA 2500.

Related Item

- FR26

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

30.1.1.1

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

Statement of Problem and Substantiation for Public Comment

Removing extraneous 's' in middle of sentence.

Related Item

- FR365

Submitter Information Verification

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Public Comment No. 121-NFPA 2500-2020 [Section No. 30.17.1]

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.
- (2) Escape webbing, fire escape webbing, and equipment are available as NFPA 1983-compliant escape and fire escape systems.

30.17.1.1

The organization shall ensure that components, ~~manufactured escape~~ escape systems, and fire escape systems, and 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

Statement of Problem and Substantiation for Public Comment

This section is discussing escape and fire escape webbing, so system references should be to both escape systems and fire escape systems.

Related Item

- FR-367

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Committee: FAE-SCE



Public Comment No. 69-NFPA 2500-2020 [Section No. 31.1.4]

31.1.4 –

~~Universal precautions shall be observed, as appropriate, in the handling of life safety rope and equipment that was exposed to contamination during use.~~

Statement of Problem and Substantiation for Public Comment

"Universal Precautions" is too vague of a term to effectively design guidance for and reliably verify compliance. This requirement should be removed.

Alternatively, if the specific precautions are known, this clause could be rewritten as:
Precautions as identified in [standard:year, section, clauses] shall be observed in the handling of life safety rope and equipment that was exposed to contamination during use."

Related Item

- Second Draft Review

Submitter Information Verification

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Public Comment No. 67-NFPA 2500-2020 [Section No. 31.2.5.3]

31.2.5.3

Life safety harnesses, ladder belts, and escape belts shall be repaired or retired from service if inspection reveals damage resulting in a performance deficiency due to the following:

- (1) Soiling
- (2) Contamination
- (3) Physical damage to the webbing components, including but not limited to the following:
 - (4) Cuts, worn or frayed areas, broken fibers, or soft or hard spots
 - (5) Thermal or chemical damage that can be detected by sight, feel or smell, such as melted fibers, glazed surfaces, or discoloration
 - (6) Pulled threads, abrasions, or breaks in the stitching
- (7) Physical damage to the hardware components, including but not limited to the following:
 - (8) Damage, sharp edges, or missing components
 - (9) Failure to operate properly
- (10) Excessive age

Statement of Problem and Substantiation for Public Comment

This change provides consistent language with 31.2.5.1 (3)(b) and 31.2.5.2 (3)(b).

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 68-NFPA 2500-2020 [Section No. 31.2.5.5]</u>	
<u>Related Item</u>	
• Comment for 2nd Draft	

Submitter Information Verification

Submitter Full Name: Matthew Plunkett
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Submittal Date: Sun Oct 04 10:17:51 EDT 2020
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Public Comment No. 68-NFPA 2500-2020 [Section No. 31.2.5.5]

31.2.5.5

End-to-end and multiple-configuration straps shall be repaired or retired from service if inspection reveals damage resulting in a performance deficiency due to the following:

- (1) Soiling
- (2) Contamination
- (3) Physical damage to the webbing components, including but not limited to the following:
 - (4) Cuts, worn or frayed areas, broken fibers, or soft or hard spots
 - (5) Thermal or chemical damage that can be detected by sight, feel, or smell, such as melted fibers, glazed surfaces, or discoloration
 - (6) Pulled threads, abrasions, or breaks in the stitching
- (7) Physical damage to the hardware components, including but not limited to the following:
 - (8) Damage, sharp edges, or missing components
 - (9) Failure to operate properly
- (10) History of shock load, fall load, or static load in excess of the design load
- (11) Excessive age

Statement of Problem and Substantiation for Public Comment

This change would make language consistent with 31.2.5.1 (3)(b) and 31.2.5.2 (3)(b).

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 67-NFPA 2500-2020 [Section No. 31.2.5.3]</u>	Language Consistency

Related Item

- Comment for 2nd Draft

Submitter Information Verification

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Public Comment No. 53-NFPA 2500-2020 [Section No. 32.1.1]

32.1.1

Organizations shall provide a means for having life safety rope and equipment cleaned and decontaminated.

32.1.1.1

Universal precautions shall be followed throughout the cleaning and decontamination process.

32.1.1.2

Where possible, organizations shall refer to the manufacturer's recommendations for cleaning of life safety rope and equipment.

Statement of Problem and Substantiation for Public Comment

A reference to following universal precautions during cleaning and decontamination should be added. Proper PPE should be worn by anyone doing cleaning and decontamination of items. If needed, additional language could be added by the TC about this during second revision.

Related Item

- FR29

Submitter Information Verification

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Submittal Date: Tue Sep 22 15:29:08 EDT 2020
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Public Comment No. 75-NFPA 2500-2020 [Section No. 32.1.1.1]

32.1.1.1

Where possible, organizations shall refer to the manufacturer's recommendations for cleaning and decontamination of life safety rope and equipment.

Statement of Problem and Substantiation for Public Comment

This section should also apply to decontamination of rope and equipment per the chapter heading.

Related Item

- FR29

Submitter Information Verification

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

32.1.2*

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

Statement of Problem and Substantiation for Public Comment

This assessment should be made following the manufacturer's instructions regarding cleaning.

Related Item

- FR29

Submitter Information Verification

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Public Comment No. 77-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.

Statement of Problem and Substantiation for Public Comment

Decontamination is also covered in this section. Cleaning and Decontamination are each unique procedures.

Related Item

- FR29

Submitter Information Verification

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Public Comment No. 110-NFPA 2500-2020 [Section No. 32.1.5]

32.1.5

Organizations shall have written procedures detailing the decontamination and cleaning processes for life safety rope and equipment contaminated with body fluids. - ~~Universal precautions shall be observed at all times by members handling life safety rope and equipment known to be or suspected to be contaminated with body fluids. _~~

Statement of Problem and Substantiation for Public Comment

"Universal Precautions" is too vague of a term to effectively design guidance for and reliably verify compliance. This sentence should be removed.

Related Item

- 31.1.3

Submitter Information Verification

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

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.

Statement of Problem and Substantiation for Public Comment

Reorganization of the sentence for clarity.

Related Item

- FR29

Submitter Information Verification

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Submittal Date: Mon Oct 05 15:33:49 EDT 2020

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Public Comment No. 79-NFPA 2500-2020 [Section No. 32.2.3]

32.2.3– Routine Cleaning Process for Life Safety Rope and Webbing.

32.2.3.1

The organization shall determine its requirements for when rope or webbing shall be cleaned.

32.2.3.2

~~The~~ In the absence of Manufacturer's Instructions, the cleaning procedure shall be as follows:

- (1) Remove as much debris, dirt, and mud as possible at the scene.
- (2) Rinse off any excess dirt with a hose.
- (3) Soak the rope or webbing for about 30 minutes in a plastic tub of water with ? nondetergent soap? added.
- (4) Rinse the rope or webbing by pulling it through a rope washing device twice.
- (5) Hang the rope or webbing in a cool, shady place to dry.

Statement of Problem and Substantiation for Public Comment

1. Routine is added to the title since this is how it is referred to in 32.2.2
2. In the absence of manufacturer's instructions was added since this section only applies to that condition per 32.2.2
3. ? What is non-detergent soap? Should there be an annex item to explain?

Related Item

- FR29

Submitter Information Verification

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Public Comment No. 116-NFPA 2500-2020 [Section No. 32.2.3.2]

32.2.3.2

The cleaning procedure shall be as follows:

- (1) Remove as much debris, dirt, and mud as possible at the scene.
- (2) Rinse off any excess dirt with a hose.
- (3) Soak the rope or webbing for ~~about~~ a minimum of 30 minutes in a plastic tub of water with nondetergent soap added.
- (4) Rinse the rope or webbing by pulling it through a rope washing device twice.
- (5) Hang the rope or webbing in a cool, shady place to dry.

Statement of Problem and Substantiation for Public Comment

The time requirement for soaking should be specific. The word "about" is too vague. Changing the word "about" to "a minimum of" gives a specific time requirement for soaking that can be clearly reproduced and audited against.

Related Item

- Second Draft Comment

Submitter Information Verification

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Submittal Date: Fri Oct 09 09:43:45 EDT 2020

Committee: FAE-SCE



Public Comment No. 80-NFPA 2500-2020 [Section No. 32.2.4.2]

32.2.4.2

Rope or webbing that has come into contact with blood or other body fluids shall be decontaminated using ~~cleaners~~ detergents or cleaning agents approved for removing biohazards according to the organization's protocols for decontaminating PPE.

Statement of Problem and Substantiation for Public Comment

This section should also reference webbing.
Other SCAM standards refer to cleaners as "detergents or cleaning agents" proposing change for consistency.

Related Item

- FR29

Submitter Information Verification

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Public Comment No. 81-NFPA 2500-2020 [Section No. 32.2.5]

32.2.5– Routine Cleaning Process for Equipment.

32.2.5.1

The organization shall determine its requirements ~~pertaining to equipment being taken out of service due to damage or contamination~~ for when equipment shall be cleaned .

32.2.5.2

~~The equipment shall be cleaned and dried in accordance with manufacturer's instructions.~~

In the absence of manufacturer's instructions the cleaning procedure shall be as follows:

- (1) Remove as much debris, dirt, and mud as possible at the scene.
- (2) Rinse any soft goods to remove excess dirt.
- (3) Hang soft goods in a cool, shady place to dry.
- (4) Wipe any hard goods with a soft cloth.
- (5) Ensure any moving parts remain functional.

32.2.5.3*

If lubrication of moving parts is necessary, a dry or nonstick lubricant shall be used following washing cleaning .

Statement of Problem and Substantiation for Public Comment

- (1) Added "Routine" to title as it is referred to in 32.2.2
- (2) Revised this sentence to mimic 32.2.3.1
- (3) Added some generic cleaning instructions (need to be verified) as this section is related to there being no manufacturer's instructions to follow.
- (4) Changed washing to cleaning since washing implies the use of water and that may not be the case.

Related Item

- FR29

Submitter Information Verification

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Public Comment No. 54-NFPA 2500-2020 [Section No. 32.2.5.3]

32.2.5.3*

If lubrication of moving parts is necessary, a dry or nonstick lubricant shall be used following ~~washing~~ cleaning .

Statement of Problem and Substantiation for Public Comment

Washing may not be the means for cleaning so the term should be consistent with the title of the section.

Related Item

- FR29

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Committee: FAE-SCE



Public Comment No. 82-NFPA 2500-2020 [Section No. 32.2.6.2]

32.2.6.2

Equipment that has come into contact with blood or other body fluids shall be decontaminated using ~~cleaners~~ disinfectants or sanitizers approved for removing biohazards according to the organization's protocols for decontaminating PPE.

Statement of Problem and Substantiation for Public Comment

Disinfectants and Sanitizers are used for decontaminating bio-hazards, this terminology is consistent with other SCAM standards.

Related Item

- FR29

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

33.1 General.

~~Equipment~~ Life safety rope and equipment shall not be modified, repaired, or otherwise altered without explicit authorization from the manufacturer.

Statement of Problem and Substantiation for Public Comment

Revision is more consistent with the title of the document.

Related Item

- FR30

Submitter Information Verification

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Submittal Date: Tue Sep 22 15:34:31 EDT 2020
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Public Comment No. 56-NFPA 2500-2020 [Section No. 34.2]

34.2* Storage of Equipment.

Equipment shall be stored in such a manner as to prevent damage, contact with other equipment and to prevent exposure to chemicals and atmospheres that can contribute to rust, corrosion, or oxidation.

Statement of Problem and Substantiation for Public Comment

Comma is needed to differentiate items in the list.

Related Item

- FR181

Submitter Information Verification

Submitter Full Name: Karen Lehtonen
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City:
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Committee: FAE-SCE



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

Annex L Informational References

L.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.

L.1.1 NFPA Publications.

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

NFPA 220, *Standard on Types of Building Construction*, 2018 edition.

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

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

NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications*, 2017 edition.

NFPA 1407, *Standard for Training Fire Service Rapid Intervention Crews*, ~~2015~~ 2020 edition.

NFPA 1500™, *Standard on Fire Department Occupational Safety, Health, and Wellness Program*, 2018 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System and Command Safety*, ~~2014~~ 2020 edition.

NFPA 1670, *Standard on Operations and Training for Technical Search and Rescue Incidents*, 2017 edition.

NFPA 1982, *Standard on Personal Alert Safety Systems (PASS)*, 2018 edition.

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

L.1.2 Other Publications.

L.1.2.1 ASSP Publications.

American Society of Safety Professionals, 520 N. Northwest Hwy, Park Ridge IL 60068.

ANSI/ ASSP Z359, *Fall Protection Code*, 2016.

L.1.2.2 ASTM Publications.

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

ASTM E794, *Standard Test Method for Melting and Crystallization Temperatures by Thermal Analysis*, 2018.

ASTM F1730, *Standard Guide for Throwing a Water Rescue Throwbag*, 1996, reapproved ~~2014~~ 2020 .

ASTM F1740, *Standard Guide for Inspection of Nylon, Polyester, or Nylon/Polyester Blend, or Both Kernmantle Rope*, 1996, reapproved 2018.

ASTM F1956, *Standard Specification for Rescue Carabiners*, ~~2013~~ 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~~ 2020 .

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~~ 2020 .

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. Government Publications.

U.S. 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. Department of Homeland Security, 2016.

National Search and Rescue Plan of the United States, U.S. 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. Coast Guard National Search and Rescue Committee, 2000.

Urban Search and Rescue Structures Specialist: Field Operations Guide, U.S. 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 edition.

NFPA 1600[®], *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*[®], 2018 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. Government Publications.

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

BIPS 08, *Field Guide for Building Stabilization and Shoring Techniques*, U.S. 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. Department of Homeland Security, 2008.

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

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

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

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

U.S. Navy Diving Manual, available online from the U.S. 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.
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- Brown, G. J., and Crist, G. S. *Confined Space Rescue*. Thomson Delmar Learning, Publishers, Clifton Park, NY, 1999.
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- 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.
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NYS Office of Fire Prevention & Control, *Confined Space Awareness and Safety* (Lesson Plan and Student Manual), Albany, NY.

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

Statement of Problem and Substantiation for Public Comment

Changes reflect updates to editions or titles of referenced publications.

Related Item

- FR305

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Public Comment No. 2-NFPA 2500-2020 [Section No. 9.4.5]

9.4.5

Organizations operating at the technician level for animal rescue incidents shall develop and implement procedures, commensurate with the identified needs of the organization, for the following:

- (1) Using a tested harness device designed for animals and extended use in the high-angle environment- ~~to include helicopter rescue~~
- (2) Performing a high-angle rescue of an animal stranded on a structure or landscape feature
- (3) * Negotiating an obstacle or projection along a horizontal path with an animal packaged in a litter or sling system
- (4) Applying the principles of the physics involved in constructing rope rescue systems, including system safety factors, critical angles, and the causes and effects of force multipliers
- (5) * Using high-angle rescue techniques to negotiate obstacles or otherwise manipulate the position of an animal packaged in an animal litter or sling system
- (6) Moving an animal packaged in a litter or sling system up and over an edge during a raising or vertical lift operation with a rope system
- (7) Mitigating dynamic loads associated with animal behaviors in a rope rescue system

Statement of Problem and Substantiation for Public Comment

Mention of helicopters has been stricken elsewhere in animal technical rescue standards, and the verbiage is not necessary to maintain the integrity of this point.

Related Item

- FR-332

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Public Comment No. 112-NFPA 2500-2020 [Section No. 11.2.3]

11.2.3

Organizations operating at the awareness level at trench and excavation emergencies shall implement procedures for the following:

- (1) Initiating size-up to ascertain immediate response needs for a trench rescue
- (2) Recognizing the need for technical resources
- (3) * Identifying the resources necessary to conduct safe and effective trench and excavation emergency operations
- (4) * Initiating the emergency response system for trenches and excavations
- (5) * Initiating site control and scene management
- (6) * Recognizing general hazards associated with trench and excavation emergency incidents and the procedures necessary to mitigate these hazards within the general rescue area
- (7) * Recognizing typical trench and excavation collapse patterns, the reasons trenches and excavations collapse, and the potential for secondary collapse
- (8) * Initiating a rapid, nonentry extrication of noninjured or minimally injured victim(s)
- (9) * Recognizing the unique hazards associated with the weight of soil and its associated entrapping characteristics
- (10) Implementing a hazard identification and isolation plan, including securing hazardous equipment, contacting utility location services, establishing control of affected utilities, and using methods for protecting bystanders and rescuers from accidentally falling into the excavation or increasing the likelihood of additional collapse
- (11) * Identifying and implementing methods for approaching and working around the excavation in a manner that minimizes the potential of collapse resulting from additional imposed loads on the lip of the trench Add Annex material as follows: *"The primary method of risk management at this level is always to reduce the number of responders who approach the trench to only those necessary to perform the required tasks of assessing conditions in the excavation, locating a potential victim and making any provisions to support immediate self-rescue or non-entry rescue. Other methods may include a path of approach that minimize additional imposed load, which is typically from the end of the trench, and the use of load distribution and transfer techniques. Load transfer and distribution techniques may include the use of bridging, which uses ground ladders or lumber laid on the ground across the trench or along the edge to distribute the weight of responders and equipment across as wide an area and as far back from the lip as possible."*
- (12) Supporting an organization at the operations or technician level while functioning within an IMS

Statement of Problem and Substantiation for Public Comment

The current language provides for teh completions of a task without guidance on how it might be accomplished. This annex material assists the reader with the intent on how it might be done.

FYI - this is also covered at operations level as well. might need to be moved into awareness completely instead of addressing it in two levels of competency

Related Item

- PI

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Public Comment No. 113-NFPA 2500-2020 [Section No. 13.2.4]

13.2.4

~~Each member of the cave rescue organization at the awareness level shall train to a minimum of Orientation to Cave Rescue as defined by the National Cave Rescue Commission of the National Speleological Society or equivalent.~~

Statement of Problem and Substantiation for Public Comment

As this is an organizational standard, 13.2.4 should not discuss what each member should be trained to. As such, it should be struck from the requirements. If this line is to remain, however, it should not reference a 3rd party's standard or equivalent without explicitly listing the requirements in the standard. All the other rescue disciplines list what is required in their standard and make the training requirements clear. As written, this line allows the 3rd party to change standards any time they wish without review.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
Public Comment No. 114-NFPA 2500-2020 [Section No. 13.3.4]	
Public Comment No. 115-NFPA 2500-2020 [Section No. 13.4.6]	

Related Item

- First Draft Report

Submitter Information Verification

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Public Comment No. 114-NFPA 2500-2020 [Section No. 13.3.4]

13.3.4

~~Each member of the cave rescue organization at the operational level shall train to a minimum of Level 2 Cave Rescuer as defined by the National Cave Rescue Commission of the National Speleological Society or equivalent.~~

Statement of Problem and Substantiation for Public Comment

As this is an organizational standard, 13.3.4 should not discuss what each member should be trained to. As such, it should be struck from the requirements. If this line is to remain, however, it should not reference a 3rd party's standard or equivalent without explicitly listing the requirements in the standard. All the other rescue disciplines list what is required in their standard and make the training requirements clear. As written, this line allows the 3rd party to change standards any time they wish without review.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 113-NFPA 2500-2020 [Section No. 13.2.4]</u>	reference to NCRC levels

Related Item

- First Draft Report

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Public Comment No. 115-NFPA 2500-2020 [Section No. 13.4.6]

13.4.6

~~Each member of the cave rescue organization at the technical level shall train to a minimum of Level 3 Cave Rescuer as defined by the National Cave Rescue Commission of the National Speleological Society or equivalent.~~

Statement of Problem and Substantiation for Public Comment

As this is an organizational standard, 13.4.6 should not discuss what each member should be trained to. As such, it should be struck from the requirements. If this line is to remain, however, it should not reference a 3rd party's standard or equivalent without explicitly listing the requirements in the standard. All the other rescue disciplines list what is required in their standard and make the training requirements clear. As written, this line allows the 3rd party to change standards any time they wish without review.

Related Public Comments for This Document

<u>Related Comment</u>	<u>Relationship</u>
<u>Public Comment No. 113-NFPA 2500-2020 [Section No. 13.2.4]</u>	

Related Item

- First Draft Report

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Public Comment No. 111-NFPA 2500-2020 [Section No. 17.4.3]

17.4.3

Organizations operating at the technician level at swiftwater search and rescue incidents shall have the following capabilities:

- (1) Constructing and operating rope rescue system anchors and mechanical advantage systems as specified by the AHJ
- (2) Constructing a tension diagonal rope system (over water).
- (3) Constructing a highline system (over water).
- (4) Constructing and operating rope systems that position and move a tethered boat controlled by ropes

Either add or remove 'over water'

Statement of Problem and Substantiation for Public Comment

Consistency of writing, unless we are thinking that teams will be building tension diagonals over dry land. . .

Related Item

- • copy editing

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