



First Revision No. 3-NFPA 99B-2015 [Global Input]

Change all instances of "flame resistant (hypobaric)" to "Limited-Combustible (material)" in all instances in the document.

Submitter Information Verification

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Street Address:

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Submittal Date: Thu Aug 06 07:52:12 EDT 2015

Committee Statement

Committee Statement: This revision helps align with the change in FR 2 and keeps consistency throughout the standard.

Response Message:

[Public Input No. 8-NFPA 99B-2015 \[Section No. 4.3.6\]](#)

[Public Input No. 5-NFPA 99B-2015 \[Section No. 4.2.2 \[Excluding any Sub-Sections\]\]](#)

[Public Input No. 4-NFPA 99B-2015 \[Section No. 4.1.1.2\]](#)

[Public Input No. 9-NFPA 99B-2015 \[Section No. 4.3.9.3\]](#)

[Public Input No. 13-NFPA 99B-2015 \[Section No. 4.1.1.2\]](#)

[Public Input No. 10-NFPA 99B-2015 \[Section No. 4.4.3.5\]](#)

[Public Input No. 11-NFPA 99B-2015 \[Section No. 4.7.2.1\]](#)



First Revision No. 1-NFPA 99B-2015 [Section No. 2.3]

2.3 Other Publications.

2.3.1 ASME Publications.

American Society of Mechanical Engineers ASME Technical Publishing Office , Three Two Park Avenue, New York, NY 10016-5990.

ASME Boiler and Pressure Vessel Code, 2015.

ANSI/ ASME PVHO-1, Safety Standard for Pressure Vessels for Human Occupancy, 2012.

2.3.2 ASTM Publications.

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

ASTM D-2863 D2863 , Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-like Combustion of Plastics (Oxygen Index),2012 2014 .

ASTM E48, Standard Test Method for Surface Burning Characteristics of Building Materials , 2015.

ASTM E648, Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source , 2014.

2.3.3 CGA Publications.

Compressed Gas Association, 4221 Walney Road, 5th Floor 14501 George Carter Way, Suite 103 , Chantilly, VA 20151-2923.

CGA C-4, Standard Method of Marking Portable Compressed Gas Containers to Identify the Material Contained (ANSI Z48.1), 1990 CGA C-7, Guide to Classification and Labeling of Compressed Gases , 10th edition, 2014. (Supersedes CGA C-4) .

2.3.4 UL Publications.

ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials , 2008.

2.3.5 Other Publications.

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

Submitter Information Verification

Submitter Full Name: Jon Hart

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Street Address:

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Submission Date: Thu Aug 06 07:41:20 EDT 2015

Committee Statement

Committee Statement: Referenced current SDO names, addresses, standard names, and editions.

Response Message:

Public Input No. 19-NFPA 99B-2015 [Section No. 2.3.2]

Public Input No. 1-NFPA 99B-2015 [Section No. 2.3]



First Revision No. 9-NFPA 99B-2015 [Section No. 2.4]

2.4 References for Extracts in Mandatory Sections.

NFPA 51, *Standard for the Design and Installation of Oxygen–Fuel Gas Systems for Welding, Cutting, and Allied Processes*, 2013 edition.

NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, 2013 2016 edition.

NFPA 99, *Health Care Facilities Code*, 2015 edition.

Submitter Information Verification

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Submittal Date: Tue Sep 15 12:06:03 EDT 2015

Committee Statement

Committee Statement: Referenced Standard update.

Response Message:



First Revision No. 2-NFPA 99B-2015 [Section No. 3.3.7]

3.3.11* ~~Flame Resistant (Hypobaric) Limited-Combustible (Material) .~~

~~A substance meeting the flame propagation performance criteria contained in Test Method 1 or Test Method 2, as appropriate, of NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, for the chamber atmosphere See 4.4.2 of NFPA 99 .~~

Submitter Information Verification

Submitter Full Name: Jon Hart

Organization: [Not Specified]

Street Address:

City:

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Submittal Date: Thu Aug 06 07:50:37 EDT 2015

Committee Statement

Committee Statement: NFPA 701 small scale test does not exist and this change would bring us in line with the current language in NFPA 99.

Response Message:

[Public Input No. 3-NFPA 99B-2015 \[Section No. 3.3.7\]](#)



First Revision No. 4-NFPA 99B-2015 [Section No. 4.2.2]

4.2.2

Flooring of Class D and E chambers shall be ~~antistatic and flame resistant (hypobaric) of noncombustible material, as defined in 4.4.1 of NFPA 99~~, or a material that is reported as meeting or exceeding the criteria for a Class 1 certification when tested in accordance with NFPA 253 or ASTM E648, Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source .

4.2.2.1*

In a hypobaric chamber, if a bilge pump is installed, the floor overlying it shall be removable for cleaning the bilge.

Submitter Information Verification

Submitter Full Name: Jon Hart

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Committee Statement

Committee Statement: PI 15

Response Message:

[Public Input No. 15-NFPA 99B-2015 \[New Section after 3.3.11\]](#)

[Public Input No. 14-NFPA 99B-2015 \[Section No. 4.2.2 \[Excluding any Sub-Sections\]\]](#)



First Revision No. 5-NFPA 99B-2015 [Section No. 4.2.3]

4.2.3

The interior of Class D and E chamber shells shall be unfinished or treated with a paint/coating in accordance with 4.2.3.1 , an OEA-compatible finish as follows:

~~Inorganic zinc-based~~

~~High-quality epoxy or equivalent~~

4.2.3.1

Interior paint/coating shall meet the performance criteria of a Class A interior finish according to NFPA 101 when tested in accordance with ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials* , or ANSI/UL 723, *Standard for Test for Surface Burning Characteristics of Building Materials* .

4.2.3.2

One additional application of paint shall be permitted, provided total paint thickness does not exceed $\frac{1}{28}$ in. (0.9 mm).

4.2.3.3

If the interior of a Class D or E chamber is treated (painted), the cure procedure and minimum duration for each layer of paint/coating to off-gas shall be in accordance with the manufacturer's application instructions.

4.2.3.4

If sound-deadening materials are employed within a hypobaric chamber, they shall be limited-combustible materials. [99: 14.2.2.5.4]

Submitter Information Verification

Submitter Full Name: Jon Hart

Organization: [Not Specified]

Street Address:

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Submission Date: Thu Aug 06 08:16:23 EDT 2015

Committee Statement

Committee Statement: This change will bring 99B in line with 99

Response Message:

Public Input No. 6-NFPA 99B-2015 [Section No. 4.2.3]



First Revision No. 6-NFPA 99B-2015 [Section No. 4.2.4]

4.2.4

~~If sound deadening materials are employed within a hypobaric chamber, they shall be flame resistant (hypobaric).~~

Submitter Information Verification

Submitter Full Name: Jon Hart

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Street Address:

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Submittal Date: Thu Aug 06 08:27:16 EDT 2015

Committee Statement

Committee Statement: This language has been added to section 4.3 through action on FR 6

Response Message:

[Public Input No. 7-NFPA 99B-2015 \[Section No. 4.2.4\]](#)



First Revision No. 7-NFPA 99B-2015 [Section No. 5.1.7.6]

5.1.7.6

Items such as seating covers, sheets, drapes, and blankets used in Class E chambers shall be made of ~~flame-resistant (hypoobaric)~~ materials that meet the requirements of 5.1.7.5.

Submitter Information Verification

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Submittal Date: Thu Aug 06 08:50:18 EDT 2015

Committee Statement

Committee Statement: This simplifies the reference to just NFPA 701 which is more appropriate for this section.

Response Message:

Public Input No. 12-NFPA 99B-2015 [Section No. 5.1.7.6]



First Revision No. 8-NFPA 99B-2015 [Section No. E.1.2]

E.1.2 Other Publications.

E.1.2.1 ASME Publications.

American Society of Mechanical Engineers ASME Technical Publishing Office , Three Two Park Avenue, New York, NY 10016-5990.

ANSI/ ASME PVHO-1, *Safety Standard for Pressure Vessels for Human Occupancy, 2015* .

E.1.2.2 Ocean Systems, Inc. Publications.

Ocean Systems, Inc., Research and Development Laboratory, Tarrytown, NY 10591.

Work carried out under U.S. Office of Contract No. N00014-67-A-0214-0013. "Technical Memorandum UCRI-721, Chamber Fire Safety." Tarrytown, NY: Ocean Systems, Inc., 15 March 1973. Ocean Systems, Inc., "Technical Memorandum UCRI-721, Chamber Fire Safety." ([Figure A.3.3.3.3](#) is adapted from Figure 4, "Technical Memorandum UCRI-721, Chamber Fire Safety." T. C. Schmidt, V. A. Dorr, and R. W. Hamilton, Jr.)

Work carried out under U.S. Office of Naval Research, Washington, DC, Contract No. N00014-67-A-0214-0013. (G. A. Cook, R. E. Meierer, and B. M. Shields, "Screening of Flame-Resistant Materials and Comparison of Helium with Nitrogen for Use in Dividing Atmospheres." First summary report under ONR Contract No. 0014-66-C-0149. Tonawanda, NY: Union Carbide, 31 March 1967. DDC No. Ad-651583.)

Submitter Information Verification

Submitter Full Name: Jon Hart

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Committee Statement

Committee Statement: Updated ASME name and address.

Response Message:

[Public Input No. 2-NFPA 99B-2015 \[Section No. E.1.2\]](#)