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MEMORANDUM

TO: Technical Committee on Fundamentals

FROM: Elena Carroll, *Project Administrator*

DATE: November 20, 2018

SUBJECT: NFPA 99 First Draft Technical Committee FINAL Ballot Results (A2020)

According to the final ballot results, all ballot items received the necessary affirmative votes to pass ballot.

25 **Members Eligible to Vote**
1 **Members Not Returned** (*Van Overmeiren*)

The attached report shows the number of affirmative, negative, and abstaining votes as well as the explanation of the vote for each revision.

To pass ballot, each revision requires: (1) a simple majority of those eligible to vote and (2) an affirmative vote of $\frac{2}{3}$ of ballots returned. See Sections 3.3.4.3.(c) and 4.3.10.1 of the *Regulations Governing the Development of NFPA Standards*.



First Revision No. 1041-NFPA 99-2018 [Global Input]

Remove ANSI from in front of all UL standards referenced in Chapter 1-4 and 16 as applicable.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 11:22:21 EDT 2018

Committee Statement

Committee Statement: These documents are ANSI accredited and not ANSI documents.

The HEA-FUN committee requests that the Correlating Committee review this action and ensure that other committees take the same action on instances in their Chapters.

Response Message: FR-1041-NFPA 99-2018

[Public Input No. 360-NFPA 99-2018 \[Global Input\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
I agree with the committee to have further discussions
Reno, Pamela
Agree with the Committee



First Revision No. 1043-NFPA 99-2018 [Section No. 1.2]

1.2 Purpose.

The purpose of this code is to provide minimum requirements for the installation, inspection, testing, maintenance, performance, and safe practices for facilities, material, equipment, and appliances, including other hazards associated with the primary hazards .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 11:26:11 EDT 2018

Committee Statement

Committee Statement: The Technical Committee removed this language because the reference to "other hazards" and "primary hazards" was too broad and didn't add any clarity to the purpose of the document.

Response Message: FR-1043-NFPA 99-2018

[Public Input No. 31-NFPA 99-2018 \[Section No. 1.2\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agree that it is too broad.
Reno, Pamela
Agree with the Committee



First Revision No. 1047-NFPA 99-2018 [New Section after 1.3.2.3]

1.3.2.4

Reducing safety features in existing systems shall not be permitted where such is required for new construction or equipment.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 11:54:28 EDT 2018

Committee Statement

Committee Statement: The addition of a new 1.3.2.4 clarifies that just because the code only specifies certain items as applying to existing systems that the level of safety elsewhere cannot be reduced if it is required for new construction. This is similar in concept to section 4.6.12.2 of NFPA 101. For example, a system built to the 2012 edition of NFPA 99, still needs to meet the requirements of how it was designed and installed and not just meet the bare minimum of retroactive requirements. Section 1.3.2.3 and the other preceding sections keep systems from needing to be upgraded just for newer editions, this new section prevents lowering the level of safety. The term "remove" was removed because it is covered under the term "reduce".

Response Message: FR-1047-NFPA 99-2018

[Public Input No. 205-NFPA 99-2018 \[New Section after 1.3.2.3\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

21 Affirmative All

3 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Abell, Bruce L.

Suggest copy and paste of contents exactly as written in Section 4.6.12.2 of NFPA 101. "No existing life safety feature shall be removed or reduced where such feature is a requirement for new construction." For a simple example, while a portable fire extinguisher is a feature, it is not -- by itself -- a system.

Mucia, Michele

Agree it is cause for redundancy in the original explanation

Reno, Pamela

Agree with the Committee



First Revision No. 1049-NFPA 99-2018 [Section No. 1.3.3.1]

1.3.3.1

The health care organization shall ensure that policies are established and maintained that permit the attending physician medical professional to supersede the requirements of this code in order to satisfy the emergency needs of any patient ~~that supersede the requirements of this code~~ .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 12:09:13 EDT 2018

Committee Statement

Committee Statement: This sub-section has been re-worded to better convey its intent, namely to allow the attending medical professional to supersede the Code's requirements so that an emergency need can be met. The current wording is awkward as it could be read that it's the patient, not the Code, that is being superseded. The term physician has been changed to medical professional so that the healthcare organization can make this decision whether it needs to be a physician or not.

Response Message: FR-1049-NFPA 99-2018

[Public Input No. 32-NFPA 99-2018 \[Section No. 1.3.3.1\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele

Agree. As some nurse managers have authority to oversee safety of patients in such that an attending physician may not be present but rather on call during the time of an immediate emergency or threat to life.

Reno, Pamela

Agree with the Committee changes



First Revision No. 1053-NFPA 99-2018 [Section No. 1.3.3.2]

1.3.3.2

~~Each such special use~~ Each application of the provisions of 1.3.3.1 , where this code's requirements are superseded to satisfy the emergency needs of a patient, shall be clearly documented and reviewed to attempt to have future similar needs met with the intent of meeting similar future needs within the requirements of this code.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 12:49:05 EDT 2018

Committee Statement

Committee Statement: This proposed re-wording improves the connection between this subsection and the previous subsection, by replacing the vague phrase "each such special use" with a reference to the the previous sub-section. The current wording is unclear. Does "each such special use" refer to special use or application of the organization's policy, or the Code, or both? Also, the awkward wording in the last part of the subsection "reviewed to attempt to have" has been re-written.

Response Message: FR-1053-NFPA 99-2018

[Public Input No. 33-NFPA 99-2018 \[Section No. 1.3.3.2\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agreed No additional comment
Reno, Pamela
Agree with the Committee changes



First Revision No. 1065-NFPA 99-2018 [Sections 2.2, 2.3]



2.2 NFPA Publications.

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

NFPA 10, *Standard for Portable Fire Extinguishers*, 2017 2018 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2016 2019 edition.

NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, 2016 edition.

NFPA 20, *Standard for the Installation of Stationary Pumps for Fire Protection*, 2016 2019 edition.

NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, 2017 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2018 edition.

NFPA 31, *Standard for the Installation of Oil-Burning Equipment*, 2016 edition.

NFPA 37, *Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines*, 2018 edition.

NFPA 45, *Standard on Fire Protection for Laboratories Using Chemicals*, 2015 edition.

NFPA 54, *National Fuel Gas Code*, 2018 edition.

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

NFPA 58, *Liquefied Petroleum Gas Code*, 2017 edition.

NFPA 70[®], National Electrical Code[®], 2017 edition.

NFPA 72[®], National Fire Alarm and Signaling Code[®], 2016 2019 edition.

NFPA 82, *Standard on Incinerators and Waste and Linen Handling Systems and Equipment*, 2014 edition.

NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*, 2018 edition.

NFPA 91, *Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids*, 2015 edition.

NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2017 edition.

NFPA 101[®], *Life Safety Code[®]*, 2018 edition.

NFPA 110, *Standard for Emergency and Standby Power Systems*, 2016 2019 edition.

NFPA 111, *Standard on Stored Electrical Energy Emergency and Standby Power Systems*, 2016 2019 edition.

NFPA 170, *Standard for Fire Safety and Emergency Symbols*, 2015 2018 edition.

NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances*, 2016 edition.

NFPA 259, *Standard Test Method for Potential Heat of Building Materials*, 2013 2018 edition.

NFPA 260, *Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture*, 2013 2019 edition.

NFPA 261, *Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes*, 2013 2018 edition.

NFPA 286, *Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth*, 2015 edition.

NFPA 418, *Standard for Heliports*, 2016 edition.

NFPA 400, *Hazardous Materials Code*, 2019 edition.

NFPA 495 *Explosive Materials Code*, 2018 edition.

NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, 2015 edition.

NFPA 750, *Standard on Water Mist Fire Protection Systems*, 2015 2019 edition.

NFPA 853, *Standard for the Installation of Stationary Fuel Cell Power Systems*, 2015 edition.

NFPA 1600[®], Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs, 2016 edition.

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*, 2015 2018 edition.

NFPA 5000[®], Building Construction and Safety Code[®], 2018 edition.

2.3 Other Publications.

2.3.1 AAMI Publications.

Association for the Advancement of Medical Instrumentation, 4301 N. Fairfax Drive, Suite 301, Arlington, VA 22203-1633.

ANSI/AAMI ES60601-1, *Medical electrical equipment — Part 1: General requirements for basic safety and essential performance*, 2012.

2.3.2 ANSI Publications.

American National Standards Institute, Inc., 22 25 West 43rd Street, 4th Floor, New York, NY 10036.

ANSI B57.1, *Compressed Gas Cylinder Valve Outlet and Inlet Connections*, 1965.

ANSI Z136.3, *American National Standard for Safe Use of Lasers in Health Care*, 2011 2018 .

~~ANSI/AAMI ES60601-1, *Medical Electrical Equipment*, 2012.~~

2.3.3 ASHRAE Publications.

ASHRAE Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329-2305.

ASHRAE 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, 2010 2016 .

ASHRAE 170, *Ventilation of Health Care Facilities*, 2013 2017 , including Addenda a, b, d, e, g, ae .

2.3.4 ASME Publications.

American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990.

ASME A.17.1/CSA B44, *Safety Code for Elevators and Escalators*, 2013 2016 .

ASME A.17.3, *Safety Code for Existing Elevators and Escalators*, 2014 2015 .

ASME B1.20.1, *Pipe Threads, General Purpose, Inch*, 2013.

ASME B16.22, *Wrought Copper and Copper Alloy Solder-Joint Pressure Fittings*, 2013.

ASME B16.26, *Cast Copper Alloy Fittings for Flared Copper Tubes*, 2013.

ANSI/ASME B16.50, *Wrought Copper and Copper Alloy Braze-Joint Pressure Fittings*, 2013.

ASME B31.3, ~~*Pressure Process Piping*~~, 2014 2016 .

ASME B40.100, *Pressure Gauges and Gauge Attachments*, 2013.

~~ANSI/~~ ASME PVHO-1, *Safety Standard for Pressure Vessels for Human Occupancy*, 2012 2016 .

~~ASME- Boiler and Pressure Vessel Code, Sections VIII and IX~~, 2014 2017 .

2.3.5 ASSE Publications.

~~ASSE International~~ American Society of Sanitary Engineering, 18927 Hickory Creek Drive, Suite 220, Mokena, IL 60448.

ASSE 6010, *Professional Qualifications Standard for Medical Gas Systems Installers*, 2015 2018 .

ASSE 6015, *Professional Qualifications Standard for Bulk Medical Gas Systems Installers*, 2018.

ASSE 6020, *Professional Qualifications Standard for Medical Gas Systems Inspectors*, 2015 2018 .

ASSE 6030, *Professional Qualifications Standard for Medical Gas Systems Verifiers*, 2015 2018 .

ASSE 6035, *Professional Qualifications Standard for Bulk Medical Gas Systems Verifiers*, 2015 2018 .

ASSE 6040, *Professional Qualifications Standard for Medical Gas Maintenance Personnel*, 2015 2018 .

2.3.6 ASTM Publications.

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

~~ASTM A240/A240M, Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications, 2015b.~~

ASTM A269/A269M, *Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service*, 2015a.

ASTM A312/A312M, *Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes*, ~~2016~~ 2017.

ASTM B32, *Standard Specification for Solder Metal*, 2008, reapproved 2014.

ASTM B88, *Standard Specification for Seamless Copper Water Tube*, ~~2014~~ 2016.

ASTM B103/B103M, *Standard Specification for Phosphor Bronze Plate, Sheet, Strip, and Rolled Bar*, 2015.

ASTM B280, *Standard Specification for Seamless Copper ~~Tubing~~ Tube for Air Conditioning and Refrigeration Field Service*, ~~2016~~ 2018.

ASTM B819, *Standard Specification for Seamless Copper Tube for Medical Gas Systems*, ~~2000~~, reapproved ~~2011~~ 2018.

ASTM B828, *Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings*, ~~2002~~, reapproved ~~2010~~ 2016.

ASTM D5/D5M, *Standard Test Method for Penetration of Bituminous Materials*, 2013.

ASTM D1785, *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120*, ~~2015e~~ 1.

ASTM D2466, *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40*, ~~2015~~ 2017.

ASTM D2467, *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80*, 2015.

ASTM D2672, *Standard Specification for Joints for IPS PVC Pipe Using Solvent Cement*, 2014.

ASTM D2846/D2846M, *Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems*, ~~2014~~ 2017be 1.

ASTM D4359, *Standard Test Method for Determining Whether a Material Is a Liquid or a Solid*, 1990, reapproved 2012.

ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, ~~2015b~~ 2018a.

ASTM E136, *Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C*, ~~2016~~ 2016a.

ASTM E1537, *Standard Test Method for Fire Testing of Upholstered Furniture*, ~~2015~~ 2016.

ASTM E1590, *Standard Test Method for the Fire Testing of Mattresses*, ~~2013~~ 2017.

ASTM E2652, *Standard Test Method for Behavior of Materials in a Tube Furnace with a Cone-shaped Airflow Stabilizer, at 750°C*, 2016.

ASTM E2965, Standard Test Method for Determination of Low Levels of Heat Release Rate for Materials and Products Using an Oxygen Consumption Calorimeter, 2017.

ASTM F438, *Standard Specification for Socket-Type Chlorinated Poly(Vinyl ~~Chlorinated~~ Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40*, ~~2015~~ 2017.

ASTM F439, *Standard Specification for Chlorinated Poly (Vinyl ~~Chlorinated~~ Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80*, 2013.

ASTM F441/F441M, *Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80*, 2015.

ASTM F493, *Standard Specification for Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings*, 2014.

2.3.7 AWS Publications.

American Welding Society, 8669 NW 36 Street, #130, Miami, FL 33166-6672.

ANSI/AWS A5.8M/A5.8, *Specification for Filler Metals for Brazing and Braze Welding*, 2011, Addendum 1, 2014.

AWS B2.2/B2.2M, *Standard Specification for Brazing Procedure and Performance Qualification*, 2010.

2.3.8 BICSI Publications.

BICSI, 8610 Hidden River Parkway, Tampa, FL 33637-1000.

The BICSI Information Transport Systems (ITS) Dictionary, 3rd edition.

2.3.9 CDA Publications.

Copper Development Association Inc., 260 Madison Avenue, #17, New York, NY 10016.

Copper Tube Handbook, 2010.

2.3.10 CGA Publications.

Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151-2923.

CGA C-7, *Guide to Classification and Labeling of Compressed Gases*, 2014.

CGA G-4, *Oxygen*, 2015.

CGA G-4.1, *Cleaning Equipment for Oxygen Service*, 2009.

CGA G-6.1, *Standard for Insulated Liquid Carbon Dioxide Systems at Consumer Sites*, 2013.

CGA G-6.5, *Standard for Small, Stationary, Insulated Carbon Dioxide Supply Systems*, 2013.

CGA G-8.1, *Standard for Nitrous Oxide Systems at Customer Sites*, 2013.

CGA M-1, *Standard for Medical Gas Supply Systems at Health Care Facilities*, 2013 2018.

~~CGA O2-DIR, *Directory of Cleaning Agents for Oxygen Service*, edition 4.~~

CGA P-2.5, *Transfilling of High Pressure Gaseous Oxygen Used for Respiration*, 2011.

CGA P-2.6, *Transfilling of Liquid Oxygen Used for Respiration*, 2011.

CGA P-18, *Standard for Bulk Inert Gas Systems at Consumer Sites*, 2013.

CGA V-1, *Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections (ANSI B57.1)*, 2013.

CGA V-5, *Diameter Index Safety System (Noninterchangeable Low Pressure Connections for Medical Gas Applications)*, 2008, reaffirmed 2013.

2.3.11 CSA Group Publications.

~~Canadian Standards Association~~ CSA Group, 178 Rexdale Blvd., Toronto, ON M9W 1R3, Canada.

CSA C22.2 No. 0.3, *Test Methods for Electrical Wires and Cables*, 2009, reaffirmed 2014.

2.3.12 FGI Publications.

Facility Guidelines Institute, 1919 McKinney Avenue, Dallas, TX 75201.

Guidelines for Design and Construction of Hospitals and Outpatient Facilities, 2014 2018.

2.3.13 ISA Publications.

International Society of Automation, 67 T.W. Alexander Drive, P.O. Box 12277, Research Triangle Park, NC 27709.

ANSI/ISA S-7.0.01, *Quality Standard for Instrument Air*, 1996.

2.3.14 MSS Publications.

~~Manufacturer's Standardization Society~~ (MSS) of the Valve and Fittings Industry, Inc., 127 Park Street NE, Vienna, VA 22180-4602.

MSS SP-58, *Pipe Hangers and Supports — Materials, Design, Manufacture, Selection, Application and Installation*, 2009.

2.3.15 State of California Publications.

State of California, Department of Consumer Affairs, 3485 Orange Grove Avenue, North Highlands, CA 95660-5595.

California Technical Bulletin 117, *Requirements, Test Procedure and Apparatus for Testing the Flame Retardance of Resilient Filling Materials Used in Upholstered Furniture*, 2000.

California Technical Bulletin 129, *Flammability Test Procedure for Mattresses for Use in Public Buildings*, 1992.

California Technical Bulletin 133, *Flammability Test Procedure for Seating Furniture for Use in Public Occupancies*, 1991.

2.3.16 TC Publications.

Transport Canada, 330 Sparks Street, Ottawa, ON, K1A 0N5, Canada.

Transportation of Dangerous Goods Regulations.

2.3.17 TIA Publications.

Telecommunications Industry Association, 1320 North Courthouse Road, Suite 200, Arlington, VA 22201.

TIA/EIA 568-B, *Commercial Building Telecommunications Cabling Standard*, 2012.

TIA/EIA 606-B, *Administration Standard for Commercial Telecommunications Infrastructure*, 2009.

2.3.18 USP–NF Publications.

U.S. Pharmacopeial Convention, 12601 Twinbrook Parkway, Rockville, MD 20852-1790.

Monograph: Oxygen USP.

Monograph: Oxygen USP 93.

[Global FR-1041](#)

2.3.19 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

ANSI/UL 723, *Standard for Test for Surface Burning Characteristics of Building Materials*, 2008, 2013, 2018.

ANSI/UL 1069, *Safety Standard for Hospital Signaling and Nurse Call Equipment*, 2007, revised 2015, 2018.

UL 1685, *Standard for Vertical-Tray Fire-Propagation and Smoke-Release Test for Electrical and Optical-Fiber Cables*, 2015.

2.3.20 U.S. Government Publications.

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

~~Department of Energy DOE-~~ STD-3020, *Specification for HEPA Filters Used by DOE Contractors*, Department of Energy, 2005.

Title 16, Code of Federal Regulations, Part 1632, "Standard for the Flammability of Mattresses and Mattress Pads (FF 4-72)."

Title 21, Code of Federal Regulations, Part 210, "Current Good Manufacturing Practice in Manufacturing, Processing, Packing, or Holding of Drugs — General."

Title 21, Code of Federal Regulations, Part 211, "Current Good Manufacturing Practice for Finished Pharmaceuticals."

~~21 USC 9, United States Food, Drug, and Cosmetic Act~~ Title 21, United States Code, Chapter 9, "Federal Food, Drug, and Cosmetic Act."

2.3.21 Other Publications.

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

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Thu Aug 09 15:04:48 EDT 2018

Committee Statement

Committee Statement: The committee would like to update the referenced documents to the most recent edition.

Response Message: FR-1065-NFPA 99-2018

[Public Input No. 253-NFPA 99-2018 \[Section No. 2.3.5\]](#)

[Public Input No. 251-NFPA 99-2018 \[Section No. 2.2\]](#)

[Public Input No. 102-NFPA 99-2018 \[Section No. 2.3.9\]](#)

[Public Input No. 362-NFPA 99-2018 \[Section No. 2.3.18\]](#)

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed as we make changes the Annex should follow with an update

Reno, Pamela

Agree with the Committee changes



First Revision No. 1057-NFPA 99-2018 [Section No. 4.1 [Excluding any Sub-Sections]]

Activities All activities, as well as systems or equipment that are new or altered, shall be designed to meet Category 1 through Category 4 requirements, as detailed in this code.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 13:34:48 EDT 2018

Committee Statement

Committee Statement: This will make it clear that categories apply to new or altered.

Response Message: FR-1057-NFPA 99-2018

Public Input No. 296-NFPA 99-2018 [Section No. 4.1 [Excluding any Sub-Sections]]

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agree
Reno, Pamela
Agree with the Committee changes



First Revision No. 1060-NFPA 99-2018 [New Section after 16.2]

16.3 Fixtures, Furnishings, and Decorations.

Fixtures, furnishings, and decorations shall meet the requirements of the applicable codes for the use of the space.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 14:15:33 EDT 2018

Committee Statement

Committee Statement: Fixtures, furnishings and decorations can add to the fire load and increase fire risk in a facility and comply with the applicable codes to ensure safety.

Response Message: FR-1060-NFPA 99-2018

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Written much more clear as it relates to fire safety.

Reno, Pamela

Agree with the Committee changes



First Revision No. 1061-NFPA 99-2018 [Section No. 16.5.1.3]

16.6.1.3 Emergency Generators and Standby Power Systems.

Emergency generators and standby power systems, where required for compliance with this code, shall be installed, tested, and maintained in accordance with NFPA 110 unless modified by this code .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 14:40:48 EDT 2018

Committee Statement

Committee Statement: This references NFPA 110 as a fundamental requirement, regardless of other chapters. NFPA 99 is a code not a standard and this referral is a valid practical application of the code. In order to eliminate potential conflicts between NFPA 99 & NFPA 110 this language was added.

Response Message: FR-1061-NFPA 99-2018

[Public Input No. 222-NFPA 99-2018 \[Section No. 16.5.1.3\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

I agree. It is not our place to change the code in reference to generators. It is our place to assure that NFPA 99 applies that code to healthcare.

Reno, Pamela

Agree with the Committee changes



First Revision No. 1062-NFPA 99-2018 [New Section after 16.7]

[16.9 Heliports.](#)

[16.9.1](#)

[New heliports shall be designed and constructed in accordance with the requirements of NFPA 418.](#)

[16.9.2](#)

[Heliports shall be maintained in accordance with NFPA 418 .](#)

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 14:50:21 EDT 2018

Committee Statement

Committee Statement: Heliports are hazards in health care facilities that need to be addressed in this standard.

Response Message: FR-1062-NFPA 99-2018

[Public Input No. 87-NFPA 99-2018 \[New Section after 16.7\]](#)

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

I agree. The public input has a good point. These are specialty systems, that in my opinion should only be tested by the manufacturer, but more importantly reference in NFPA 99 in a more explicit fashion. They are not like other non proprietary fire protection systems.

Reno, Pamela

Agree with the Committee changes



First Revision No. 1066-NFPA 99-2018 [New Section after 16.7.1.2]

16.8.1.3

An approved existing installation shall be permitted to be continued in use, provided it is tested and maintained in accordance with the requirements of NFPA 72 .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 16:10:24 EDT 2018

Committee Statement

Committee Statement: This will provide better clarity and accuracy with regard to existing systems. The current language in 16.7.1.2 is poorly worded and implies that testing and maintenance per NFPA 72 applies, "unless it is an approved existing installation". In that case, it is simply permitted to continue being used. Moving this language to its own section clarifies that existing fire alarm systems must also be tested and maintained.

Response Message: FR-1066-NFPA 99-2018

Public Input No. 2-NFPA 99-2018 [New Section after 16.7.1.2]

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes



First Revision No. 1067-NFPA 99-2018 [Section No. 16.7.1.2]

16.8.1.2

A fire alarm system required for life safety shall be installed, tested, and maintained in accordance with the applicable requirements of *NFPA 70* and *NFPA 72* unless it is an approved existing installation, which shall be permitted to be continued in use. [~~101~~ : 9.6.1.3] .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 16:11:22 EDT 2018

Committee Statement

Committee Statement: This section is written and referenced as an extract from The Life Safety Code but the wording is not the same and is, therefore, not a straight extract from 101. As such, the Fundamentals committee should consider changing the wording of this section to provide better clarity and accuracy with regard to existing systems. The current language is poorly worded and implies that testing and maintenance per NFPA 72 applies, "unless it is an approved existing installation". In that case, it is simply permitted to continue being used.

Instead it is proposed that this phrase be removed and similar language regarding existing installations be placed in its own section. See action on PI 2.

Response Message: FR-1067-NFPA 99-2018

[Public Input No. 3-NFPA 99-2018 \[Section No. 16.7.1.2\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.
Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agreed
Reno, Pamela
Agree with the Committee changes



First Revision No. 1068-NFPA 99-2018 [Section No. 16.9.1.1]

16.11.1.1

~~Nonferrous-type fire~~ Fire extinguishers shall be provided in MRI rooms and associated spaces.

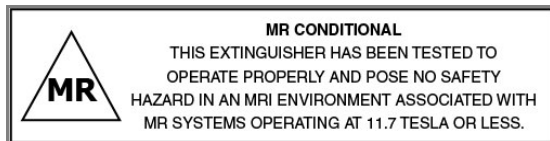
16.11.1.1.1*

Fire extinguishers provided in MRI rooms and associated spaces shall be tested to operate properly and pose no safety hazard in an MRI environment associated with MR systems operating at 11.7 tesla or less.

A.16.11.1.1.1

Extinguishers that are appropriate for MRI rooms and associated spaces are typically labeled with information regarding their safe use in an MRI environment. See [Figure A.16.11.1.1.1](#) for an example of such a label.

Figure A.16.11.1.1.1 Example of a Label on an Extinguisher for an MRI Environment.



Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
FR_1068_Annex_Figure.jpg	Annex figure to be drawn--for staff use	

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Thu Aug 09 16:13:05 EDT 2018

Committee Statement

Committee Statement: Extinguishers intended for MRI rooms and associated spaces are tested and pose no safety hazard in an MRI environment operating at 11.7 Tesla or less. Current text is overly restrictive and is causing confusion with qualified extinguishers intended for installation in MRI environments.

Response Message: FR-1068-NFPA 99-2018

[Public Input No. 92-NFPA 99-2018 \[Section No. 16.9.1.1\]](#)

Ballot Results

✓ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agree

Reno, Pamela

Agree with the Committee changes

**First Revision No. 1069-NFPA 99-2018 [Section No. 16.9.1.2]****16.11.1.2**

Class K fire extinguishers shall be provided for hazards where there is a potential for fires involving combustible cooking media (vegetable or animal oils and fats). [10:6.6.1]

16.11.1.3*

Class K fire extinguishers shall not be required where residential cooking equipment is used for food warming or limited cooking, or where an occupancy prohibits deep fat frying.

A.16.11.1.3

This provision is intended to permit appliances used for reheating, limited cooking, and food preparation, such as microwave ovens, hot plates, electric skillets, toasters, and nourishment centers to be exempt from the requirements for commercial cooking equipment and hazardous area protection. Limited quantities of butter, cooking spray, or oil can be used. [101: A.18.3.2.5.2]

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Thu Aug 09 16:18:24 EDT 2018

Committee Statement

Committee Statement: Class K extinguishers are not necessarily needed where deep fat frying is not performed and some inspectors are mandating the installation of a Class K extinguisher where they are not needed. The problem with the text is the word potential. Anywhere there is a cooking device, there is potential to cook with combustible cooking media. This added text attempts to better define the intent and exempt some cooking locations. Class K extinguishers, like wet chemical (UL 300) fixed systems, are listed for a particular quantity (depth) and surface area of vegetable oil (to prevent re-ignition) and the proposed text identifies particular operations where this is not likely to occur. The verbiage "where residential cooking equipment is used for food warming or limited cooking" used in 16.9.1.2.1 is taken from NFPA 101 Chapter 18/19.3.2.5.2 and identifies areas where a Class K extinguisher is not needed within a healthcare occupancy. This proposal was also sent to NFPA 10, but even if the NFPA 10 committee doesn't accept this proposal, NFPA 99 should accept it or some verbiage similar and strike the extract from NFPA 10. The requirement for a Class K extinguisher comes from NFPA 96 which is the standard for commercial cooking operations and the requirement should be limited to commercial cooking operations. Note that NFPA 10 Annex F has provisions for residential cooking operations and allows other than Class K extinguishers.

Response Message: FR-1069-NFPA 99-2018

Public Input No. 30-NFPA 99-2018 [Section No. 16.9.1.2]

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

20 Affirmative All

2 Affirmative with Comments

2 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes

Negative with Comment

Crowley, Michael A.

On further review, I agree with Jim Lathrop. This has gone too far. We should delete the last clause" or where an occupancy prohibits deep fat frying"

Lathrop, James K.

I think the change went too far. All the facility has to do is prohibit deep fat frying to not provide Class K portable fire extinguishers. It is not that simple. If a wet chemical system is provided, then Class K portable extinguishers must be provided to prevent a mismatch in extinguishing agents.



First Revision No. 1072-NFPA 99-2018 [Section No. 16.13.3.2]

16.15.3.2*

Flammable liquid germicides or antiseptics used in anesthetizing locations, whenever the use of electrosurgery, cautery, or a laser is contemplated, shall be packaged to ensure controlled delivery to the patient in unit dose applicators, swabs, and other similar applicators. as follows:

~~In a nonflammable package~~

~~To ensure controlled delivery to the patient in unit dose applicators, swabs, and other similar applicators~~

Supplemental Information

<u>File Name</u>	<u>Description</u>	<u>Approved</u>
99_HEA-FUN_FR-1072_final.docx	legislative changes - for staff use only	

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 16:35:53 EDT 2018

Committee Statement

Committee Statement: Many packages from the suppliers are made from combustible material, which is typically not the problem in the operating room.

Response Message: FR-1072-NFPA 99-2018

[Public Input No. 371-NFPA 99-2018 \[Section No. 16.13.3.2\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.
Burrill, Gordon D.
Crowley, Michael A.
Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele

No comment

Reno, Pamela

Agree with the Committee changes



First Revision No. 1073-NFPA 99-2018 [Section No. 16.13.3.4]

16.15.3.4

~~Any solution-soaked materials shall be removed from the operating room prior~~ Prior to draping or use of electrosurgery, cautery, or a laser, ~~any flammable liquid-soaked materials shall be removed from the patient care vicinity and discarded in a designated noncombustible disposal unit .~~

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 16:38:55 EDT 2018

Committee Statement

Committee Statement: Removing solution soaked material from the operating room creates operational problems and may expose the area to infectious controls issues. Removing the material from the patient care vicinity provides an adequate level of protection.

Response Message: FR-1073-NFPA 99-2018

[Public Input No. 372-NFPA 99-2018 \[Section No. 16.13.3.4\]](#)

[Public Input No. 400-NFPA 99-2018 \[Section No. 16.13.3.4\]](#)

[Public Input No. 40-NFPA 99-2018 \[Section No. 16.13.3.4\]](#)

[Public Input No. 264-NFPA 99-2018 \[Section No. 16.13.3.4\]](#)

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agreed per our last meeting discussion
Reno, Pamela
Agree with the Committee changes

**First Revision No. 1074-NFPA 99-2018 [Section No. 16.13.3.6]****16.15.3.6**

A preoperative “time out” period shall be conducted prior to the initiation of any surgical procedure using flammable liquid ~~germicides~~ germicide or ~~antiseptics~~ antiseptic solutions to verify the following:

- (1) Application site of ~~flammable germicide or antiseptic solution~~ is dry prior to draping and use of electrosurgery, cautery, or a laser.
- (2) Pooling of solution has not occurred or has been corrected.
- (3) Any solution-soaked materials have been removed from the ~~operating room prior to draping and use of electrosurgery, cautery, or a laser~~ patient care vicinity and discarded in a designated noncombustible disposal unit .

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 17:03:19 EDT 2018

Committee Statement

Committee Statement: To correlate with other changes in Chapter 16 to allow solution soaked material to be discarded within the operating room because of operational problems with leaving the OR.

Response Message: FR-1074-NFPA 99-2018

[Public Input No. 157-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 105-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 401-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 168-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 160-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 158-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

[Public Input No. 41-NFPA 99-2018 \[Section No. 16.13.3.6\]](#)

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.
Beebe, Chad E.
Besel, Jeff N.
Brooks, Bruce D.
Burrill, Gordon D.
Crowley, Michael A.
Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed based on our review meeting correlations

Reno, Pamela

Agree with the Committee changes

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes



First Revision No. 1076-NFPA 99-2018 [Section No. A.16.9.1.3]

A.16.11.1.4

Dry chemical fire extinguishers should not be provided in operating rooms. A carbon dioxide fire extinguisher meets the definition of a clean agent fire extinguisher ~~The~~ according to NFPA 10 . The clean agent extinguishers selected should have a Class A rating of some form.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Thu Aug 09 17:22:06 EDT 2018

Committee Statement

Committee Statement: The proposed new sentence in the annex note will clarify to the user that a carbon dioxide fire extinguisher meets the criterion of a clean agent fire extinguisher as detailed in the NFPA 99 handbook.

Response Message: FR-1076-NFPA 99-2018

[Public Input No. 267-NFPA 99-2018 \[Section No. A.16.9.1.3\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

21 Affirmative All

2 Affirmative with Comments

1 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes

Negative with Comment

Lathrop, James K.

This gives the implication that a Carbon Dioxide portable fire extinguisher meets the intent of the Code, Carbon Dioxide portable fire extinguishers do NOT have a Class A rating. They are also hazardous for numerous other reasons in an operating room.



First Revision No. 1077-NFPA 99-2018 [Section No. A.16.13]

A.16.13

The following definitions were adapted from the ACS publication 04-GR-0001, *Guidelines for Optimal Ambulatory Surgical Care and Office-Based Surgery*, which was developed by the Board of Governors Committee on Ambulatory Surgical Care. Class A, Class B, and Class C operating rooms are classified as follows:

Class A — Provides for minor surgical procedures performed under topical and local infiltration blocks with or without oral or intramuscular preoperative sedation. (Excluded are procedures that make use of spinal, epidural axillary, and stellate ganglion blocks; regional blocks (e.g., interscalene) and supraclavicular, infraclavicular, and intravenous regional anesthesia.) These procedures are also appropriately performed in Class B and C facilities.

Class B — Provides for minor or major surgical procedures performed in conjunction with oral, parenteral, or intravenous sedation or under analgesic or dissociative drugs. These procedures are also appropriately performed in Class C facilities.

Class C — Provides for major surgical procedures that require general or regional block anesthesia and support of vital bodily functions.

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Thu Aug 09 17:25:03 EDT 2018

Committee Statement

Committee Statement: The definitions are not used in the text and the text applies to all operating rooms. The definitions are no longer used by other professional associations (eg, FGI, AORN, ASHE, ASHRAE).

Response Message: FR-1077-NFPA 99-2018

[Public Input No. 42-NFPA 99-2018 \[Section No. A.16.13\]](#)

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.
Besel, Jeff N.
Brooks, Bruce D.
Burrill, Gordon D.
Crowley, Michael A.
Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
No comments
Reno, Pamela
Agree with the Committee changes



First Revision No. 1107-NFPA 99-2018 [Section No. D.1]

D.1 Referenced Publications.

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

D.1.1 NFPA Publications.

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

NFPA 10, *Standard for Portable Fire Extinguishers*, 2017 2018 edition.

NFPA 13, *Standard for the Installation of Sprinkler Systems*, 2016 2019 edition.

NFPA 30, *Flammable and Combustible Liquids Code*, 2018 edition.

NFPA 53, *Recommended Practice on Materials, Equipment, and Systems Used in Oxygen-Enriched Atmospheres*, 2016 edition.

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

NFPA 56D, *Standard for Hyperbaric Facilities*, 1982 (withdrawn).

NFPA 58, *Liquefied Petroleum Gas Code*, 2017 edition.

NFPA 70[®], National Electrical Code[®], 2017 edition.

NFPA 70B, Recommended Practice for Electrical Equipment Maintenance, 2016 edition.

NFPA 72[®], National Fire Alarm and Signaling Code[®], 2016 2019 edition.

NFPA 77, *Recommended Practice on Static Electricity*, 2014 2019 edition.

NFPA 90B, *Standard for the Installation of Warm Air Heating and Air-Conditioning Systems*, 2018 edition.

NFPA 99B, *Standard for Hypobaric Facilities*, 2018 edition.

NFPA 101[®], *Life Safety Code[®]*, 2018 edition.

NFPA 110, *Standard for Emergency and Standby Power Systems*, 2013 2019 edition.

NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems, 2019 edition.

NFPA 170, *Standard for Fire Safety and Emergency Symbols*, 2015 2018 edition.

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

NFPA 252, *Standard Methods of Fire Tests of Door Assemblies*, 2017 edition.

NFPA 259, *Standard Test Method for Potential Heat of Building Materials*, 2013 2018 edition.

~~NFPA 325, *Guide to Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids*, 1994 edition. (No longer in print; appears in NFPA *Fire Protection Guide to Hazardous Materials*, 13th edition, 2002.)~~

NFPA 551, *Guide for the Evaluation of Fire Risk Assessments*, 2016 2019 edition.

NFPA 730, *Guide for Premises Security*, 2017 2018 edition.

NFPA 1600[®], Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs, 2016 edition.

~~NFPA *Fire Protection Guide to Hazardous Materials*, 2016 2010 edition.~~

D.1.2 Other Publications.

D.1.2.1 AAMI Publications.

Association for the Advancement of Medical Instrumentation, 4301 N. Fairfax Drive, Suite 301, Arlington, VA 22203-1633.

ANSI/AAMI ES60601-1:2005, *Medical electrical equipment — Part 1: General requirements for basic safety and essential performance*, 2006, ~~reaffirmed~~ 2012.

ANSI/AAMI ES60601-1, *Medical electrical equipment — Part 2: Collateral standard: Electromagnetic disturbances — Requirements and tests*, 2014.

ANSI/AAMI ES60601-1, *Medical electrical equipment — Part 8: Collateral standard: Alarm systems — General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems*, 2006.

D.1.2.2 ACS Publications.

American College of Surgeons, 633 N. Saint Clair Street, Chicago, IL 60611-3211.

~~04-GR-0001, *Guidelines for Optimal Ambulatory Surgical Care and Office-Based Surgery*, 2000.~~

D.1.2.2 ASHE Publications.

American Society for Health Care Engineering of the American Hospital Association, 155 N. Wacker Drive, Suite 400, Chicago, IL 60606.

Maintenance Management for Health Care Facilities, 2009.

D.1.2.3 ASHRAE Publications.

ASHRAE Inc., 1791 Tullie Circle, NE, Atlanta, GA 30329-2305.

ASHRAE Guideline 0, *The Commissioning Process*, 2013.

ASHRAE Guideline 1.1, *HVAC&R Technical Requirements for the Commissioning Process*, 2007, ~~Errata~~, ~~errata~~ 2012.

ASHRAE *Handbook — Fundamentals*, 2017.

ASHRAE Standard 202, *Commissioning Process for Buildings and Systems*, 2013.

D.1.2.4 ASME Publications.

ASME International American Society of Mechanical Engineers, Two Park Avenue, New York, NY 10016-5990.

ASME B16.22, *Wrought Copper and Copper Alloy Solder- Solder- Joint Pressure Fittings*, 2013.

ANSI/ASME B16.50, *Wrought Copper and Copper Alloy Braze- Braze- Joint Pressure Fittings*, 2015 2013.

ANSI/ASME PVHO-1, *Safety Standard for Pressure Vessels for Human Occupancy*, 2016.

Boiler and Pressure Vessel Code, 2015 2017.

D.1.2.5 ASTM Publications.

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

ASTM E119, *Standard Test Methods for Fire Tests of Building Construction and Materials*, 2014 2018.

ASTM G63, *Standard Guide for Evaluating Nonmetallic Materials for Oxygen Service*, 2015.

ASTM G72/G72M, *Standard Test Method for Autogenous Ignition Temperature of Liquids and Solids in a High-Pressure Oxygen-Enriched Environment*, 2015.

ASTM G88, *Standard Guide for Designing Systems for Oxygen Service*, 2013.

ASTM G93, *Standard Practice for Cleaning Methods and Cleanliness Levels for Material and Equipment Used in Oxygen-Enriched Environments*, 2003, ~~reaffirmed~~ reapproved 2011.

ASTM G94, *Standard Guide for Evaluating Metals for Oxygen Service*, 2005, ~~reaffirmed~~ reapproved 2014.

D.1.2.6 CGA Publications.

Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151-2923.

CGA G-8.1, *Standard for Nitrous Oxide Systems at Customer Sites*, 2013.

CGA P-2.5, *Transfilling of High Pressure Gaseous Oxygen to Be Used for Respiration*, 2011.

CGA P-2.6, *Transfilling of Liquid Oxygen to Be Used for Respiration*, 2011.

CGA P-2.7, *Guide for the Safe Storage, Handling, and Use of Small Portable Liquid Oxygen Systems in Health Care Facilities*, 2011.

CGA P-50, *Site Security Standard*, 2014.

CGA V-1, *Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections (ANSI B57.1)*, 2013.

D.1.2.7 FGI Publications.

Facility Guidelines Institute, 1919 McKinney Avenue, Dallas, TX 75201.

Guidelines for Design and Construction of Hospitals and Outpatient Facilities, 2014 2018.

D.1.2.8 IEC Publications.

International Electrotechnical Commission, 3, rue de Varembe, P.O. Box 131, CH-1211 Geneva 20, Switzerland.

ANSI/AAMI/IEC 80001-1, *Application of Risk Management for IT Networks Incorporating Medical Devices — Part 1: Roles, Responsibilities and Activities*, 2010.

ANSI/IEC/ISO 80001-1-1, *Application of Risk Management for IT Networks Incorporating Medical Devices — Part 1-1: Risk Management of Medical IT-Networks*, 2010.

ANSI/IEC/ISO 80001-2-5, *Application of Risk Management for IT Networks Incorporating Medical Devices — Part 2-5: Application Guidance — Guidance for Distributed Alarm Systems*, 2014.

IEC 60601-1-1, *Medical Electrical equipment — Part 1: General Requirements for Basic Safety and Essential Performance*, 2014.

IEC 60601-1-2, *Medical Electrical equipment — Part 1-2: General Requirements for Safety 2: Collateral Standard: Electromagnetic Compatibility — Requirements and Tests*, 2014.

IEC 60601-1-8, *Medical electrical equipment — Part 8: Collateral standard: Alarm systems — General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems*, 2014.

ISO/IEC 31010, *Risk Management — Risk Assessment Techniques*, 2009.

D.1.2.9 IEEE Publications.

IEEE, Three Park Avenue, 17th Floor, New York, NY 10016-5997.

ANSI/IEEE 493, *Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems*, 2007.

IEEE 602, *Recommended Practice for Electric Systems in Health Care Facilities*, 2007.

D.1.2.10 NEMA Publications.

National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Arlington, VA 22209.

ANSI/NEMA PB 1.1, *General Instructions for Proper Installation, Operation and Maintenance of Panelboards Rated 600 V or Less*, 2007.

ANSI/NEMA WD 6, *Wiring Devices — Dimensional Requirements*, 2016.

NEMA ICS 2.3, *Instructions for the Handling, Installation, Operation and Maintenance of Motor Control Centers Rated Not More than 600 V*, 1995, revised 2008.

D.1.2.11 NETA Publications.

InterNational Electrical Testing Association, 3050 Old Centre Ave, Suite 101, Portage, MI 49024.

ANSI/NETA ATS, *Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems*, 2017.

D.1.2.12 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.

~~Ocean Systems, Inc., T. C. Schmidt, V. A. Dorr, and R. W. Hamilton, Jr., "Technical Memorandum UCRI-721, Chamber Fire Safety." (Figure A.3.3.11 12.2 is adapted from Figure 4, of this memorandum.) "Technical Memorandum UCRI-721, Chamber Fire Safety," T. C. Schmidt, V. A. Dorr, and R. W. Hamilton, Jr., Ocean Systems, Inc., Research and Development Laboratory, Tarrytown, NY 10591. 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.)~~

D.1.2.13 SAE Publications.

SAE International, Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096.

AMS QQ-N290, *Nickel Plating (Electrodeposited)*, reinstated 2009.

D.1.2.14 SFPE Publications.

Society of Fire Protection Engineers, 9711 Washingtonian Blvd, Suite 380, Gaithersburg, MD 20878.

Engineering Guide to Fire Risk Assessment, 2006.

D.1.2.15 TIA Publications.

Telecommunications Industry Association, 1320 North Courthouse Road, Suite 200, Arlington, VA 22201.

ANSI/TIA 569-D, *Telecommunications Pathways and Spaces*, 2015.

D.1.2.16 UL Publications.

Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

UL 263, *Fire Resistance Ratings Standard for Fire Tests of Building Construction and Materials*, 2011, revised 2018.

UL 498, *Standard for Attachment Plugs and Receptacles*, 2017.

UL 943, *Ground-Fault Circuit-Interrupters*, 2016.

~~ANSI/UL 1069, *Safety Standard for Hospital Signaling and Nurse Call Equipment*, 2012 2007, revised 2018.~~

UL 1363A, *Outline of Investigation for Special Purpose Relocatable Power Taps*, 2010.

UL 2930, *Outline of Investigation for Cord-and-Plug-Connected Health Care Facility Outlet Assemblies*, 2018.

D.1.2.17 U.S. Government Publications.

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

"Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response," Institute of Medicine (IOM) Report, 2012.

~~*Medical Surge Capacity and Capability Handbook*, Department of Health and Human Services, 2007.~~

Title 21, United States Code, Part 321(g)(1), "Federal Food, Drug, and Cosmetic Act."

Title 49, Code of Federal Regulations, Subchapter C, "Hazardous Materials Regulations," and Part 190, "Pipeline Safety Enforcement and Regulatory Procedures."

U.S. Government Publication 3152, *Hospitals and Community Response — What You Need to Know*, 1997.

D.1.2.18 USP Publications.

U.S. Pharmacopeia, 12601 Twinbrook Parkway, Rockville, MD 20852-1790.

United States Pharmacopeia and National Formulary (USP-NF).

D.1.2.19 Other Publications.

Hoeltge, G.A., A. Miller, B.R. Klein, W.B. Hamlin. "Accidental Fires in Clinical Laboratories." *Archives of Pathology & Laboratory Medicine* 117, no. 12 (1993): 1200-4.

National Academy of Sciences — National Research Council, Publication 1132, *Diesel Engines for Use with Generators to Supply Emergency and Short-Term Electric Power*, National Academy of Sciences — National Research Council, 1963.

SEMI S10-0307E, *Safety Guideline for Risk Assessment and Risk Evaluation Process*.

"Atmospheric Pressure," *Fire Journal* July/August 2002.

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Wed Aug 22 09:28:58 EDT 2018

Committee Statement

Committee Statement: Update of referenced publications in annex material to the most current editions.

Response Message: FR-1107-NFPA 99-2018

[Public Input No. 254-NFPA 99-2018 \[Section No. D.1.2.5\]](#)

[Public Input No. 363-NFPA 99-2018 \[Section No. D.1.2.13\]](#)

Ballot Results

✔ **This item has passed ballot**

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes



First Revision No. 1125-NFPA 99-2018 [Section No. D.2.6]

D.2.6 Additional Resources for Emergency Management.

Barbera, J. *Emergency Management Principles and Practices for Healthcare-care Systems*, Institute of Crisis, Disaster and Risk Management, 2010, The George Washington University, Washington, DC, 2040, for the Veterans Health Administration, Washington, DC Principal Investigator Joseph Barbera, MD; _ www.gwu.edu/~icdrm/publications/index.html#books.

Barbera, J. A., and A. G. Macintyre. 2007. *Medical Surge Capacity and Capability Handbook: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies* , Contract No. 233-03-0028, Department of Health and Human Services, Washington, DC.

NFPA 3000™ (PS). *Standard for an Active Shooter/Hostile Event Response (ASHER) Program* , 2018 edition.

Submitter Information Verification

Committee: HEA-FUN

Submittal Date: Tue Aug 28 13:03:46 EDT 2018

Committee Statement

Committee Statement: Additional resources added as references for informational purposes.

Response Message: FR-1125-NFPA 99-2018

Ballot Results

✔ This item has passed ballot

25 Eligible Voters

1 Not Returned

22 Affirmative All

2 Affirmative with Comments

0 Negative with Comments

0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.

Beckstrand, Gary A.

Beebe, Chad E.

Besel, Jeff N.

Brooks, Bruce D.

Burrill, Gordon D.

Crowley, Michael A.

Dahozy, Roger N.

Day, Richard L.

Ferlitch, Jr., Carl J.

Keisler, Jr., Frank L.

Klein, David P.

Lathrop, James K.

Lyman, Dale L.

Major, Michael W.

Peterkin, James S.

Puchovsky, Milosh T.

Schmitt, Dennis L.

Scibetta, Joe

Sontag, Robert

Vann, Joshua

Williams, John L.

Affirmative with Comment

Mucia, Michele

Agreed

Reno, Pamela

Agree with the Committee changes



First Revision No. 1080-NFPA 99-2018 [Section No. D.2.7]

D.2.7 Other Publications.

Barbera, J. and A. G. Macintyre. 2002. *Medical and Health Management (MaHIM) System: A Comprehensive Functional System Descriptions for Mass Casualty Medical and Health Incident Management*, George Washington University, School of Engineering and Applied Sciences, Institute for Crisis, Disaster and Risk Management. <http://www2.gwu.edu/~icdrm/publications/MaHIM%20V2%20final%20report%20sec%202.pdf>.

DuPont Safety News, June 14, 1965.

Dasler and Bauer, Ind. Eng. Chem. Anal, Ed. 18, 52 (1964).

IEEE 3001.2, *Recommended Practice for Evaluating the Electrical Service Requirements of Industrial and Commercial Power Systems*, 2017.

IEEE 3001.5, *Recommended Practice for the Application of Power Distribution Apparatus in Industrial and Commercial Power Systems*, 2013.

IEEE 3003.2, *Recommended Practice for Equipment Grounding and Bonding in Industrial and Commercial Power Systems*, 2014.

IEEE 3006.2, *Recommended Practice for Evaluating the Reliability of Existing Industrial and Commercial Power Systems*, 2016.

IEEE 3006.3, *Recommended Practice for Determining the Impact of Preventative Maintenance on the Reliability of Industrial and Commercial Power Systems*, 2017.

IEEE 3006.5, *Recommended Practice for the Use of Probability Methods for Conducting a Reliability Analysis of Industrial and Commercial Power Systems*, 2014.

IEEE 3006.7, *Recommended Practice for Determining the Reliability of 7x24 Continuous Power Systems in Industrial and Commercial Facilities*, 2013.

IEEE 3006.9, *Recommended Practice for Collecting Data for Use in Reliability, Availability, and Maintainability Assessments of Industrial and Commercial Power Systems*, 2013.

IEEE 3007.1, *Recommended Practice for the Operation and Management of Industrial and Commercial Power Systems*, 2010.

IEEE 3007.2, *Recommended Practice for the Maintenance of Industrial and Commercial Power Systems*, 2010.

IEEE P3007.3, *Recommended Practice for Electrical Safety in Industrial and Commercial Power Systems*, 2017.

Submitter Information Verification

Committee: HEA-FUN

Submission Date: Thu Aug 09 17:38:23 EDT 2018

Committee Statement

Committee Statement: Informational references.

Response Message: FR-1080-NFPA 99-2018

Public Input No. 314-NFPA 99-2018 [Section No. D.1.2.9]

Ballot Results

✓ This item has passed ballot

25 Eligible Voters

1 Not Returned
22 Affirmative All
2 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Van Overmeiren, Frank L.

Affirmative All

Abell, Bruce L.
Beckstrand, Gary A.
Beebe, Chad E.
Besel, Jeff N.
Brooks, Bruce D.
Burrill, Gordon D.
Crowley, Michael A.
Dahozy, Roger N.
Day, Richard L.
Ferlitch, Jr., Carl J.
Keisler, Jr., Frank L.
Klein, David P.
Lathrop, James K.
Lyman, Dale L.
Major, Michael W.
Peterkin, James S.
Puchovsky, Milosh T.
Schmitt, Dennis L.
Scibetta, Joe
Sontag, Robert
Vann, Joshua
Williams, John L.

Affirmative with Comment

Mucia, Michele
Agreed
Reno, Pamela
Agree with the Committee changes