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## American National Standards

### Call for comment on proposals listed

This section solicits public comments on proposed draft new American National Standards, including the national adoption of ISO and IEC standards as American National Standards, and on proposals to revise, reaffirm or withdraw approval of existing American National Standards. A draft standard is listed in this section under the ANSI-accredited standards developer (ASD) that sponsors it and from whom a copy may be obtained. Comments in connection with a draft American National Standard must be submitted in writing to the ASD no later than the last day of the comment period specified herein. Such comments shall be specific to the section(s) of the standard under review and include sufficient detail so as to enable the reader to understand the commenter's position, concerns and suggested alternative language, if appropriate. Please note that the ANSI Executive Standards Council (ExSC) has determined that an ASD has the right to require that interested parties submit public review comments electronically, in accordance with the developer's procedures.

#### Ordering Instructions for "Call-for-Comment" Listings

1. **Order from the organization indicated for the specific proposal.**
2. **Use the full identification in your order, including the BSR prefix; for example, Electric Fuses BSR/SAE J554.**
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4. **BSR proposals will not be available after the deadline of call for comment.**

Comments should be addressed to the organization indicated, with a copy to the Board of Standards Review, American National Standards Institute, 25 West 43rd Street, New York, NY 10036. Fax: 212-840-2298; e-mail: [psa@ansi.org](mailto:psa@ansi.org)

\* Standard for consumer products

## Comment Deadline: October 8, 2017

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.1b-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum responds to increasing requests for more simplified table for ventilation rate procedure of the standard. It contains a simplified ventilation rate table in Informative Appendix D for use in existing buildings where information for calculating minimum ventilation using Normative Appendix A for multiple spaces is often unavailable.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.1d-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum deletes Informative Appendix D (Rationale for Minimum Physiological Requirements for Respiration Air Based on CO<sub>2</sub> Concentration). Appendix D first appeared in 62-1989. Its purpose was to explain the relationship between oxygen and carbon dioxide in spaces. It is based on data from the 1950's. Newer information is available. The committee is aware of misuse and confusion caused by the information in its present form and prefers to delete this misused appendix now. The committee may add back relevant informative guidance that assists with implementation of the standard in the next version of the standard.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.1f-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The so-called "Multiple Spaces Equation" is very difficult to use, especially for variable volume systems for which there are an infinite number of scenarios with varying airflow, occupancy, supply air temperature, etc., all of which affect system ventilation efficiency. 62.1 includes two options for calculating system ventilation efficiency, a prescriptive approach using Table 6.2.5.2 and a more fundamental approach in Normative Appendix A. This proposed addendum replaces the table approach with two formulas, one used to determine system ventilation efficiency (Ev) and one used to determine minimum primary airflow setpoint intended to be used for VAV systems.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.2g-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum would establish firm requirements for compartmentalization airtightness for new attached residential dwelling units. Previously there has been language that suggested this metric without requiring it. This proposed change also refers to a new Section A5, in Normative Appendix A. That proposed new section is found in proposed Addendum h, and would provide a prescriptive path for air sealing as an alternative to the requirements that would be implemented through this proposal, for attached dwelling units in which 15-80% of the envelope wall area is being altered. Please see Addendum h to view the referenced Section A5.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.2h-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum would provide an alternative compliance pathway for compartmentalization to the one being proposed in Addendum g. This alternative pathway would be available only to exiting multifamily dwelling units undergoing retrofits that fall short of a gut rehab. The pathway in this proposed addendum recognizes that it is not possible to access all leaks in existing units and provides a prescriptive pathway with the intent of maximizing practical compartmentalization.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

#### Addenda

BSR/ASHRAE Addendum 62.2i-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum would make explicit that placing a new fan in a kitchen or bathroom in an existing dwelling unit can address the airflow deficit that would otherwise have existed through Section A3. This has been assumed to be true, but has not previously been made explicit. This proposed change would make this condition more transparent to users.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

### Addenda

BSR/ASHRAE Addendum 62.2j-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum would explicitly allow existing buildings to use a branch-circuit overcurrent device as an override even if it is not dedicated to only the ventilation fan in recognition that running a new circuit for the fan in an existing home is not always feasible.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

### Addenda

BSR/ASHRAE Addendum 62.2m-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

Currently, the standard defines floor area to include only finished spaces in the home, thereby excluding below-grade spaces such as unfinished basements from the calculation of ventilation rate. This proposed addendum would include such below-grade unfinished spaces in the calculation of floor area if they are within the pressure boundary of the home.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

### Addenda

BSR/ASHRAE Addendum 62.2n-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

The purpose of this proposed addendum is to enable filters tested under ISO Standard 16980-2016 to be used to meet the requirements of Section 4.1.4 (Ventilation-Rate Reduction for Particle Filtration) in addition to filters rated under ASHRAE Standard 52.2 and AHRI Standard 680.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)

### Addenda

BSR/ASHRAE Addendum f to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposed addendum makes changes to Section 4.3, Health Care Facility Requirements, to clarify the requirements for buildings containing health care facilities.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## NSF (NSF International)

### Revision

BSR/NSF 51-201x (i15r1), Food Equipment Materials (revision of ANSI/NSF 51-2014)

This Standard is applicable to the materials and finishes used in the manufacture of food equipment (e.g., broiler, beverage dispenser, cutting board, stock pot). The Standard is also applicable to components such as tubing, sealants, gaskets, valves, and other items intended for various food equipment applications.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [arose@nsf.org](mailto:arose@nsf.org)

## PEARL (Professional Electrical Apparatus Recyclers League)

### New Standard

BSR/PEARL EERS-201x, Electrical Equipment Reconditioning Standard (new standard)

The PEARL Reconditioning Standard pertains to the reconditioning of electrical distribution equipment and accessories. The term "reconditioning" is identified as "the process of returning electrical equipment to safe operating condition as recommended by the manufacturer's instructions or industrial standards, and tested by recognized industrial test standards."

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Andrew Van Wasshnova, (720) 881-6043, [avanwasshnova@kellencompany.com](mailto:avanwasshnova@kellencompany.com)

## UAMA (ASC B7) (Unified Abrasives Manufacturers' Association)

### Revision

BSR B7.1-201x, Safety Requirements for the Use, Care and Protection of Abrasive Wheels (revision of ANSI B7.1-2010)

This safety standard sets forth requirements for the safe use, care, and protection of abrasive wheels and the machines for which they are designed. Included in this standard are the requirements for wheel guards, flanges, chucks and proper storage, handling and mounting techniques. This is a follow-up to a 2/16/17 ballot for revision to address comments received.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [jjw@wherryassoc.com](mailto:jjw@wherryassoc.com)

## UL (Underwriters Laboratories, Inc.)

### Revision

BSR/UL 67-201x, Standard for Safety for Panelboards (revision of ANSI/UL 67-2016)

This proposal is a revision of requirements in Paragraph 8.1.12 for Panelboard Door Enclosure Thickness.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Derrick Martin, (510) 319-4271, [Derrick.L.Martin@ul.com](mailto:Derrick.L.Martin@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 583-201x, Standard for Safety for Electric-Battery-Powered Industrial Trucks (Proposal dated 09/08/17) (revision of ANSI/UL 583-2016)

The following changes in requirements to UL 583, are: Clarification of requirements for self-propelled floor cleaners.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Wilbert Fletcher, [wilbert.fletcher@ul.com](mailto:wilbert.fletcher@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 864-201X, Standard for Safety for Control Units and Accessories for Fire Alarm Systems (revision of ANSI/UL 864-2014)

These requirements cover: (a) Discrete electrical control units and accessories for fire alarm systems; (b) Electrically and electronically operated amplifiers that provide speech communication and distinctive sounds in conjunction with fire protective signaling systems; and (c) Commercial stationary and fixed power supplies for fire-protective signaling systems, having input and output ratings of not more than 600 V, direct- and alternating-current (DC and AC).

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Tess Espejo, [theresa.espejo@ul.com](mailto:theresa.espejo@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 924-201x, Standard for Safety for Emergency Lighting and Power Equipment (revision of ANSI/UL 924-2017)

Revise the proposed change in UL 924 to restrict replacement of individual batteries and cells as a result of comments received.

[Click here to view these changes in full](#)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Grace Roh, (919) 549-1389, [Grace.Roh@ul.com](mailto:Grace.Roh@ul.com)

**Comment Deadline: October 23, 2017****AAMI (Association for the Advancement of Medical Instrumentation)****New National Adoption**

BSR/AAMI/ISO 11139-201x, Sterilization of health care products - Vocabulary - Terms used in sterilization and related equipment and process standards (identical national adoption of ISO 11139)

Defines terms in the field of sterilization of health care products used in the standards developed by ISO TC198, Sterilization of healthcare products; CEN TC204, Sterilization of medical devices; and CEN TC102, Sterilizers and associated equipment for processing of medical devices.

Single copy price: Free

Order from: [https://standards.aami.org/higherlogic/ws/public/document?document\\_id=12599&wg\\_abbrev=PUBLIC\\_REV](https://standards.aami.org/higherlogic/ws/public/document?document_id=12599&wg_abbrev=PUBLIC_REV)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [abenedict@aami.org](mailto:abenedict@aami.org)

**AAMI (Association for the Advancement of Medical Instrumentation)****Reaffirmation**

BSR/AAMI ST41-2008 (R201x), Ethylene oxide sterilization in health care facilities: Safety and effectiveness (reaffirmation of ANSI/AAMI ST41-2008 (R2012))

This recommended practice covers the safe and effective use of ethylene oxide as a sterilant in health care facilities. The provisions of this document are intended to promote sterility assurance, help minimize occupational exposure to ethylene oxide, and guide health care personnel in the proper use of processing equipment.

Single copy price: \$154.00 (AAMI members)/\$272.00 (list)

Obtain an electronic copy from: <http://my.aami.org/store/SearchResults.aspx?searchterm=ST41&searchoption=ALL>

Order from: <http://my.aami.org/store/SearchResults.aspx?searchterm=ST41&searchoption=ALL>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [abenedict@aami.org](mailto:abenedict@aami.org)

**AGMA (American Gear Manufacturers Association)****New National Adoption**

BSR/AGMA ISO 14104-2017, Gears - Surface temper etch inspection after grinding, chemical method (identical national adoption of ISO 14104:2017)

This document specifies procedures and requirements for the detection and classification of localized overheating on ground surfaces by chemical etch methods. This document applies to steel parts such as gears, shafts, splines, and bearings. It is not applicable to nitrided parts and stainless steels.

Single copy price: \$103.00

Obtain an electronic copy from: [tech@agma.org](mailto:tech@agma.org)

Order from: Amir Aboutaleb, (703) 684-0211, [tech@agma.org](mailto:tech@agma.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASA (ASC S3) (Acoustical Society of America)****Reaffirmation**

BSR/ASA S3.42-2012/Part 2/IEC 60118-15:2012 (R201x), Testing Hearing Aids - Part 2: Methods for characterizing signal processing in hearing aids with a speech-like signal (a nationally adopted international standard) (reaffirmation of ANSI/ASA S3.42-2012/Part 2/IEC 60118-15:2012)

Describes a recommended speech-like test signal, the International Speech Test Signal (ISTS), and a method for the characterization of hearing aids using this signal with the hearing aid set to actual user settings or to the manufacturers' recommended settings for one of a range of audiograms. For the purposes of this standard, the hearing aid is considered to be a combination of the physical hearing aid and the fitting software which accompanies it.

Single copy price: \$118.00

Obtain an electronic copy from: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Order from: Neil Stremmel, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)****Addenda**

BSR/ASHRAE Addendum 62.1c-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum deletes Informative Appendix C (Summary of Selected Air Quality Guidelines) from Standard 62.1. Appendix C first appeared in Standard 62-1989. Since that time there have been many additions and modifications. Its purpose is to assist with the IAQ procedure. The committee is aware of misuse and confusion caused by the information in its present form and prefers to delete this misused appendix now. The committee may add back relevant informative guidance that assists with implementation of the IAQ procedure in the next version of the standard.

Single copy price: \$35.00

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**ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)****Addenda**

BSR/ASHRAE Addendum 62.1e-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Appendices F and I first appeared in 62.1-2010. In 2007, the information was in the body of the standard. To move informative documentation out of the standard, informative appendices were added. They referred primarily to the USA and information regarding the NAAQS. To add international information, these appendices are rewritten to provide up-to-date links and combine information on outdoor air into one informative appendix. There is no current map for when the most recent three-year average annual fourth-highest daily maximum eight-hour average ozone concentration exceeds 0.107 ppm (209 µg/m<sup>3</sup>).

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Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

**ASME (American Society of Mechanical Engineers)****Revision**

BSR/ASME BPVC Section XI-201x, Rules for Inservice Inspection of Nuclear Power Plant Components (revision of ANSI/ASME BPVC Section IX-2017)

Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, of the ASME Boiler and Pressure Vessel Code provides requirements for examination, testing, and inspection of components and systems, and repair/replacement activities in a nuclear power plant. Application of this Section of the Code begins when the requirements of the Construction Code have been satisfied.

Single copy price: Free

Obtain an electronic copy from: <http://cstools.asme.org/publicreview>

Order from: Mayra Santiago, ASME; [ansibox@asme.org](mailto:ansibox@asme.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Kimberly Verderber, (212) 591-8721, [verderberk@asme.org](mailto:verderberk@asme.org)

**ASTM (ASTM International)****New Standard**

BSR/ASTM WK52522-201x, Guide for Evaluating Test Method Capability and Fitness for Use (new standard)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

Single copy price: Free

Obtain an electronic copy from: [cleonard@astm.org](mailto:cleonard@astm.org)

Order from: [accreditation@astm.org](mailto:accreditation@astm.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASTM (ASTM International)****New Standard**

BSR/ASTM WK54597-201x, Specification for Special-Purpose Test Fuels for Aviation Compression-Ignition Engines (new standard)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Reaffirmation**

BSR/ASTM E456-2013a (R201x), Terminology Relating to Quality and Statistics (reaffirmation of ANSI/ASTM E456-2013a)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

Single copy price: Free

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASTM (ASTM International)****Reaffirmation**

BSR/ASTM E1302-2013 (R201x), Guide for Acute Animal Toxicity Testing of Water-Miscible Metalworking Fluids (reaffirmation of ANSI/ASTM E1302-2013)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASTM (ASTM International)****Reaffirmation**

BSR/ASTM E2889-2012 (R201x), Practice for Control of Respiratory Hazards in the Metal Removal Fluid Environment (reaffirmation of ANSI/ASTM E2889-2012)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM D910-201x, Specification for Leaded Aviation Gasolines (revision of ANSI/ASTM D910-2017)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

Single copy price: Free

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**ASTM (ASTM International)****Revision**

BSR/ASTM D1655-201x, Specification for Aviation Turbine Fuels (revision of ANSI/ASTM D1655-2016b)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASTM (ASTM International)****Revision**

BSR/ASTM D3241-201x, Test Method for Thermal Oxidation Stability of Aviation Turbine Fuels (revision of ANSI/ASTM D3241-2016)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM D6299-201x, Practice for Applying Statistical Quality Assurance and Control Charting Techniques to Evaluate Analytical Measurement System Performance (revision of ANSI/ASTM D6299-2017)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM D7372-201x, Guide for Analysis and Interpretation of Proficiency Test Program Results (revision of ANSI/ASTM D7372-2012)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**ASTM (ASTM International)****Revision**

BSR/ASTM D7547-201x, Specification for Hydrocarbon Unleaded Aviation Gasoline (revision of ANSI/ASTM D7547-2017)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM D7566-201x, Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons (revision of ANSI/ASTM D7566-2017)

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**ASTM (ASTM International)****Revision**

BSR/ASTM D7719-201x, Specification for High Aromatic Content Unleaded Hydrocarbon Aviation Gasoline (revision of ANSI/ASTM D7719-2016)

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**ASTM (ASTM International)****Revision**

BSR/ASTM E1169-201x, Practice for Conducting Ruggedness Tests (revision of ANSI/ASTM E1169-2014)

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**ASTM (ASTM International)****Revision**

BSR/ASTM E1497-201x, Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids (revision of ANSI/ASTM E1497-2005 (R2011))

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM E2554-201x, Practice for Estimating and Monitoring the Uncertainty of Test Results of a Test Method Using Control Chart Techniques (revision of ANSI/ASTM E2554-2013)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM E2619-201x, Practice for Measuring and Calculating Building Loss Features that Take Up Floor Area in Buildings (revision of ANSI/ASTM E2619-2009)

[http://www.astm.org/ANSI\\_SA](http://www.astm.org/ANSI_SA)

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**ASTM (ASTM International)****Revision**

BSR/ASTM E2935-201x, Practice for Conducting Equivalence Testing in Laboratory Applications (revision of ANSI/ASTM E2935-2016)

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**AWS (American Welding Society)****Revision**

BSR/AWS A3.0M/A3.0-201x, Standard Terms and Definitions Including Terms for Adhesive Bonding, Brazing, Soldering, Thermal Cutting, and Thermal Spraying (revision of ANSI/AWS A3.0M/A3.0-2009)

This standard is a glossary of the technical terms used in the welding industry. Its purpose is to establish standard terms to aid in the communication of information related to welding and allied processes. Since it is intended to be a comprehensive compilation of welding terminology, nonstandard terms used in the welding industry are also included. All terms are either standard or nonstandard. They are arranged in word-by-word alphabetical sequence.

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**ECIA (Electronic Components Industry Association)****New Standard**

BSR/EIA 973-201x, Specification for M12 Hybrid (Data and Power) Circular Connector (new standard)

This specification contains the connector types specified for M12 hybrid (data and power) circular connectors, typically use for automation applications and data/communications in industrial premises.

Single copy price: \$88.00

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**NCPDP (National Council for Prescription Drug Programs)****New Standard**

BSR/NCPDP Specialty Pharmacy Reporting v10-201x, NCPDP Specialty Pharmacy Data Reporting Standard v10 (new standard)

The Specialty Pharmacy Data Reporting Standard provides a uniform format for the submission of specialty pharmacy data to manufacturers which is needed to support related operations and validate contractual obligations. The implementation of this standard will increase administrative efficiencies and eliminate the need for pharmacies to create internal mapping processes to standardize unique data formats from each manufacturer.

Single copy price: \$200.00 (non-members)

Obtain an electronic copy from: [kkrempin@ncpdp.org](mailto:kkrempin@ncpdp.org)

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**NCPDP (National Council for Prescription Drug Programs)****Revision**

BSR/NCPDP MR v07.02-201x, NCPDP Manufacturer Rebate Utilization, Plan, Formulary, Market Basket, and Reconciliation Flat File Standard v07.02-201x (revision and redesignation of ANSI/NCPDP MR v07.01-2014)

The Standard provides a standardized format for the electronic submission of rebate information from Pharmacy Management Organizations (PMOs) to Pharmaceutical Industry Contracting Organizations (PICOs). The four (4) file formats are intended to be used in an integrated manner, with the utilization file being supported by the plan, formulary, and market basket files. However, any of the four (4) files may be used independently. The Standard Flat File layouts provide detailed information on the file design and requirements for each of the four (4) files.

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## **NCPDP (National Council for Prescription Drug Programs)**

### **Revision**

BSR/NCPDP SC WG110077201xxx-201x, NCPDP SCRIPT Standard 201xxx (revision and redesignation of ANSI/NCPDP SC Standard 2017071-2017)

The SCRIPT Standard provides general guidelines for developers of pharmacy or physician management systems who wish to provide prescription transmission functionality to their clients. The standard addresses the electronic transmission of new prescriptions, prescription refill requests, prescription fill status notifications, and cancellation notifications.

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## **NCPDP (National Council for Prescription Drug Programs)**

### **Revision**

BSR/NCPDP Specialized Standard WG110077201xxx-201x, NCPDP Specialized Standard 201xxx (revision and redesignation of ANSI/NCPDP SC Standard 2013071-2013)

The NCPDP Specialized Standard will house transactions that are not eprescribing but are part of the NCPDP XML environment. The standard provides general guidelines for developers of systems who wish to provide business functionality of these transactions to their clients. The guide describes a set of transactions and the implementation of these transactions.

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## **NECA (National Electrical Contractors Association)**

### **New Standard**

BSR/NECA 121-201X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground Feeder and Branch-Circuit Cable (Type UF) (new standard)

This standard describes installation procedures for nonmetallic-sheathed cable (Type NM) and underground feeder and branch-circuit cable (Type UF).

Single copy price: \$40.00

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## **NSF (NSF International)**

### **Revision**

BSR/NSF 42-201x (i96r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2016)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce specific aesthetic-related (non-health effects) contaminants in public or private water supplies. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

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## **NSF (NSF International)**

### **Revision**

BSR/NSF 44-201x (i43), Residential Cation Exchange Water Softeners (revision of ANSI/NSF 44 2016)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of residential cation exchange water softeners. This Standard also specifies the minimum product literature that manufacturers shall supply to authorized representatives and owners, as well as the minimum service-related obligations that manufacturers shall extend to owners.

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## **NSF (NSF International)**

### **Revision**

BSR/NSF 53-201x (i107), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53 2016)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of point-of-use and point-of-entry drinking water treatment systems that are designed to reduce specific health-related contaminants in public or private water supplies. Such systems include point-of-entry drinking water treatment systems used to treat all or part of the water at the inlet to a residential facility or a bottled water production facility, and includes the material and components used in these systems.

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**NSF (NSF International)****Revision**

BSR/NSF 55-201x (i44), Ultraviolet Microbiological Water Treatment Systems (revision of ANSI/NSF 55-2017)

The purpose of this Standard is to establish minimum requirements for the reduction of microorganisms using ultraviolet radiation (UV). UV water treatment systems covered by this Standard are intended for water that may be either microbiologically safe or microbiologically unsafe. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners, as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

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**NSF (NSF International)****Revision**

BSR/NSF 58-201x (i79), Reverse Osmosis Drinking Water Treatment Systems (revision of ANSI/NSF 58-2017)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of reverse osmosis drinking water treatment systems. This Standard also specifies the minimum product literature that manufacturers shall supply to authorized representatives and owners, as well as the minimum service-related obligations that manufacturers shall extend to system owners.

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**NSF (NSF International)****Revision**

BSR/NSF 60-201x (i78r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF 60-2016)

This Standard establishes minimum health effects requirements for the chemicals, the chemical contaminants, and the impurities that are directly added to drinking water from drinking-water treatment chemicals. This Standard does not establish performance or taste and odor requirements for drinking-water treatment chemicals.

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**NSF (NSF International)****Revision**

BSR/NSF 61-201x (i138r1), Drinking Water System Components - Health Effects (revision of ANSI/NSF 61-2016)

This Standard establishes minimum health effects requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components, and materials used in drinking water systems. This Standard does not establish performance, taste and odor, or microbial growth support requirements for drinking water system products, components, or materials.

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**NSF (NSF International)****Revision**

BSR/NSF 62-201x (i34), Drinking Water Distillation Systems (revision of ANSI/NSF 62 2016)

This standard establishes minimum materials, design and construction, and performance requirements for point-of-use and point-of-entry drinking water distillation systems and the components used in these systems. Distillation systems covered by this standard are designed to reduce specific chemical contaminants from potable drinking-water supplies. Systems covered under this standard may also be designed to reduce microbiological contaminants, including bacteria, viruses, and cysts, from potable drinking-water supplies. It is recognized that a system may be effective in controlling one or more of these contaminants, but systems are not required to control all.

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**NSF (NSF International)****Revision**

BSR/NSF 401-201x (i9), Drinking water treatment units - Emerging compounds/incidental contaminants (revision of ANSI/NSF 401 2017)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of drinking-water treatment systems that are designed to reduce emerging compounds in public or private water supplies, such as pharmaceutical personal care products (PPCPs) and endocrine disrupting compounds (EDCs).

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 25-3-201x, Hybrid Fiber Coax Outside Plant Status Monitoring - Power Supply to Transponder Interface Bus (PSTIB) Specification v1.1 1.1 (revision of ANSI/SCTE 25-3-2011)

This specification describes the PSTIB PHY and DLL layer requirements and protocols that must be implemented to support reliable communications between all Type-2- and Type-3-compliant OSP HMS transponders on the HFC plant and managed OSP power supplies and related hardware.

Single copy price: \$50.00

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 83-1-201x, HMS Inside Plant Management Information Base (MIB) - Part 1: SCTE-HMS-HE-OPTICS-MIB (revision of ANSI/SCTE 83-1-2012)

The MIB module provides the branch object identifiers for the headend optics MIBs within the SCTE HMS Headend subtree.

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 83-3-201x, Hybrid Fiber/Coax Inside Plant Status Monitoring SCTE-HMS-HMTS-MIB Management Information Base (MIB) Definition (revision of ANSI/SCTE 83-3-2009)

This document provides the MIB definitions for management of an HMTS system and defines how to address the HMS transponders connected to the HTMS system.

Single copy price: \$50.00

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 83-4-201x, HMS Common Inside Plant Management Information Base (MIB) SCTE-HMS-HE-RF-MIB (revision of ANSI/SCTE 83-4-2009)

This document provides MIB definitions for HMS RF equipments present in the headend (or indoor) and is supported by a SNMP agent.

Single copy price: \$50.00

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 84-1-201x, HMS Common Inside Plant Management Information Base (MIB) - Part 1: SCTE-HMS-HE-COMMON-MIB (revision of ANSI/SCTE 84-1 2009)

The MIB module is for representing general information about optical equipment present in the headend (or indoor) and is supported by an SNMP agent.

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 84-2-201x, HMS Inside Plant Management Information Base (MIB) SCTE-HMS-HE-POWER-SUPPLY-MIB (revision of ANSI/SCTE 84-2-2009)

This document provides MIB definitions for HMS Indoor Power Supplies present in the headend (or indoor) and supported by a SNMP agent.

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 84-3-201x, HMS Inside Plant Management Information Base (MIB) SCTE-HMS-HE-FAN-MIB (revision of ANSI/SCTE 84-3-2009)

This document provides the branch object identifiers for each of the Fan MIBs within the SCTE HMS Tree.

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 111-201x, Specification for 5/8-24 Plug, Male Adaptors (revision of ANSI/SCTE 111-2010)

The purpose of this specification is to serve as a recommended guideline for the physical dimensions of 5/8 - 24 plug (male) hard-line adapters that are used as interconnects in the 75-ohm RF broadband communications industry. It is not the purpose of this standard to specify the details of manufacturing.

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 144-201x, Test Procedure for Measuring Transmission and Reflection (revision of ANSI/SCTE 144-2012)

The purpose of this test procedure is to determine the reflection at any port, or the transmission between any two ports of a properly terminated device, as measured across a frequency range of interest. Depending on use of the data, return loss, insertion gain or loss, isolation, response variation or bandwidth can be derived. This specification is applicable to the testing of 75-ohm devices.

Single copy price: \$50.00

Obtain an electronic copy from: [standards@scte.org](mailto:standards@scte.org)

Order from: Global Engineering Documents, (800) 854-7179, [www.global.ihs.com](http://www.global.ihs.com)

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 155-201x, Indoor "F" Female to "F" Female Inline Splice (revision of ANSI/SCTE 155-2008)

The purpose of this document is to recommend the mechanical and electrical standards for 75-ohm broadband radio frequency (RF) devices that provide an indoor inline connection between two type "F" male connectors that conform to ANSI/SCTE 123 2011, Specification for "F" Connector, Male, Feed-Through or ANSI/SCTE 124 2011, Specification for "F" Connector, Male, Pin Type. The mechanical configuration is designed to accommodate wall plate and bulkhead applications.

Single copy price: \$50.00

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**SCTE (Society of Cable Telecommunications Engineers)****Revision**

BSR/SCTE 185-201x, Test Method for Cantilever Force, Female "F" Port (revision of ANSI/SCTE 185-2012)

This test procedure is used to evaluate the mechanical strength of female "F" ports on passive or active devices when a cantilever force is applied to the port.

Single copy price: \$50.00

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**TAPPI (Technical Association of the Pulp and Paper Industry)****Reaffirmation**

BSR/TAPPI T 1219 sp-2012 (R201x), Storage of paper samples for optical measurements and color matching (reaffirmation of ANSI/TAPPI T 1219 sp-2012)

Procedures for handling and storing samples are generally based on the premise that heat and light are the two primary factors affecting change. This standard practice lists several practices that have been found to be helpful in preserving samples.

Single copy price: Free

Obtain an electronic copy from: [standards@tappi.org](mailto:standards@tappi.org)

Order from: Laurence Womack, (770) 209-7276, [standards@tappi.org](mailto:standards@tappi.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Same

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 252A-201x, Standard for Safety for Compressed Gas Regulator Accessories (revision of ANSI/UL 252A-2010 (R2015))

The following is being proposed: (1) Addition of requirements for outlet connections and batteries.

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Obtain an electronic copy from: <http://www.comm-2000.com>

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Jeff Prusko, (847) 664-3416, [jeffrey.prusko@ul.com](mailto:jeffrey.prusko@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 508C-201X, Standard for Safety for Power Conversion Equipment (revision of ANSI/UL 508C-2016)

Revised the addition of requirements for Modular Drive Systems proposal based on the comments received during the ballot phase.

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Casey Granata, (919) 549-1054, [Casey.Granata@UL.Com](mailto:Casey.Granata@UL.Com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 61800-5-1- 201X, Standard for Safety for Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy (revision of ANSI/UL 61800-5-1-2017)

Revised the addition of requirements for Modular Drive Systems proposal based on the comments received during the ballot phase.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: <http://www.comm-2000.com>

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**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 61800-5-1- 201X, Standard for Safety for Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy (revision of ANSI/UL 61800-5-1-2017)

The following is proposed: (1) Use of thermistors to comply with 5.1.5DV; (2) CDM/BDM controlling multiple motors; (3) Clarification of spacings and internal wire insulation for rectified AC voltages; (4) Slash and straight voltage ratings for drives with a 3-phase input; (5) Control circuit transformer protection; (6) Signal words; (7) Component analysis for breakdown of components test; (8) Dust test requirement for equipment rated other than Type 1, 2, 3R, and 3RX; (9) Clarification of deflection test prior to clearance measurement; (10) Requirement for power factor for breakdown of components test circuit; (11) DVD.2 Construction; and (12) Revision to line capacitors.

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**Comment Deadline: November 7, 2017**

**Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)**

**ASME (American Society of Mechanical Engineers)****New Standard**

BSR/ASME B31P-201x, Preheat and Heat Treatment for Pressure Piping (new standard)

This standard provides requirements for heat treatment of piping assemblies that meet the requirements of ASME B31 Code Sections. These requirements apply to preheating, postweld heat treatment (PWHT), and postforming heat treatment (PFHT) required by the ASME B31 Code Sections for other fabrication processes, and heat treatments required by contract specifications.

Single copy price: Free

Obtain an electronic copy from: <http://cstools.asme.org/publicreview>

Order from: Mayra Santiago, ASME; [ansibox@asme.org](mailto:ansibox@asme.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Umberto D'Urso, (212) 591-8535, [dursou@asme.org](mailto:dursou@asme.org)

**IEEE (Institute of Electrical and Electronics Engineers)****New Standard**

BSR/IEEE 45.1-201x, Recommended Practice for Electrical Installations on Shipboard - Design (new standard)

The recommendations for electrical power generation, distribution, and electric propulsion system design for use on shipboard are established by this document. These recommendations reflect the present-day technologies, engineering methods, and engineering practices.

Single copy price: \$184.00 (pdf)

Order from: online: <http://standards.ieee.org/store>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**IEEE (Institute of Electrical and Electronics Engineers)****New Standard**

BSR/IEEE 421.6-201x, Recommended Practice for the Specification and Design of Field Discharge Equipment for Synchronous Machines (new standard)

This recommended practice serves as basic reference for the specification and design of field discharge circuits for synchronous machines. It also provides detailed information about field discharge equipment complementing the IEEE 421.4-2004, Guide for Preparation of Excitation System Specification.

Single copy price: \$58.00 (pdf); \$58.00 (print)

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**IEEE (Institute of Electrical and Electronics Engineers)****New Standard**

BSR/IEEE 3001.11-201x, Recommended Practice for Application of Controllers and Automation to Industrial and Commercial Power Systems (new standard)

This recommended practice covers the selection and application of controllers and automation to industrial and commercial power systems. It is likely to be of greatest value to the power-oriented engineer with limited experience with this equipment. It can also be an aid to all engineers responsible for the electrical design of industrial and commercial power systems.

Single copy price: \$92.00 (pdf)

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**IEEE (Institute of Electrical and Electronics Engineers)****New Standard**

BSR/IEEE C62.42.3-201x, Guide for the Application of Surge-Protective Components in Surge Protective Devices and Equipment Ports - Part 3: Silicon PN-Junction Clamping Diodes (new standard)

The C62.42 guide series covers surge-protective components (SPCs) used in power and telecom surge protective devices (SPDs) and equipment ports. This part, Part 3 of the C62.42 series, describes Silicon PN-Junction Clamping Diode SPCs and covers: technology variants, component construction, characteristics, ratings, and application examples.

Single copy price: N/A

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**IEEE (Institute of Electrical and Electronics Engineers)****Revision**

BSR/IEEE 686-201x, Standard Radar Definitions (revision of ANSI/IEEE 686-2008)

This standard is devoted to providing radar definitions. The standard includes terms formerly found in IEEE Std 172™-1971 [B1], with the exception of a few terms that are common in both fields, and new and updated terms. IEEE Std 172-1983 [B1] was withdrawn in 1983. As radar technology and literature evolve, new terms will be added and obsolete terms deleted.

Single copy price: \$74.00 (pdf)

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**IEEE (Institute of Electrical and Electronics Engineers)****Revision**

BSR/IEEE 1792-201x, Recommended Practice for Nuclear Power Generating Station Preferred Power Supply Reliability (revision of ANSI/IEEE 1792-2011)

This recommended practice addresses activities related to PPS reliability, including design considerations, analytical studies, operational and maintenance considerations, and IAs between an NPGS and its associated Transmission Entities.

Single copy price: \$58.00 (pdf); \$73.00 (print)

Order from: online: <http://standards.ieee.org/store>

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**IEEE (Institute of Electrical and Electronics Engineers)****Revision**

BSR/IEEE C37.238-201x, Standard Profile for Use of IEEE 1588 Precision Time Protocol in Power System Applications (revision of ANSI/IEEE C37.238-2011)

This standard specifies an extended profile for the use of IEEE Std 1588™-2008, IEEE Standard for a Precision Clock Synchronization Protocol for Networked Measurement and Control Systems, in power system protection, control, automation, and data communication applications utilizing an Ethernet communications architecture. The profile specifies a well-defined subset of IEEE 1588 mechanisms and settings aimed at enabling device interoperability, robust response to network failures, and deterministic control of delivered time quality.

Single copy price: \$58.00 (pdf); \$73.00 (print)

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Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [k.evangelista@ieee.org](mailto:k.evangelista@ieee.org)

**Projects Withdrawn from Consideration**

An accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

**ADA (American Dental Association)**

BSR/ADA Standard No. 137-201x, Test Methods for Dental Unit Waterline Biofilm Treatment (identical national adoption of ISO 16954:2015 and revision of ANSI/ADA Standard No. 137-2014)

Inquiries may be directed to Paul Bralower, (312) 587-4129, [bralowerp@ada.org](mailto:bralowerp@ada.org)

**CTA (Consumer Technology Association)**

BSR/CTA 2045.1 Amendment 1-201x, Modular Communications Interface for Firmware Transfer Message Set (addenda to ANSI/CEA 2045.1-2014)

**TIA (Telecommunications Industry Association)**

BSR/TIA 1066-A-201x, Lawfully Authorized Electronic Surveillance for cdma2000 Voice over IP (new standard)

**TIA (Telecommunications Industry Association)**

BSR/TIA 1072-A-201x, LAES for cdma2000® Push-to-Talk over Cellular (new standard)



## NFPA FIRE PROTECTION STANDARDS DOCUMENTATION

The National Fire Protection Association announces the availability of NFPA *First Draft Report* for concurrent review and comment by NFPA and ANSI in the next issue of Standards Action.

*The First Draft Report* for documents in the 2018 Fall Revision Cycle have been posted on the document's specific URL site. The *First Draft Reports* contain the disposition of public input received for those proposed documents. Anyone wishing to review the *First Draft Report* for documents in the 2018 Fall Revision Cycle may do so on each document's information page under the next edition tab. The document's specific URL, for example [www.nfpa.org/doc#next](http://www.nfpa.org/doc#next) ([www.nfpa.org/101next](http://www.nfpa.org/101next)), can easily access the document's information page. All comments on the 2018 Fall Revision Cycle *First Draft Report* must be received by November 16, 2017 with exception of the following:

The disposition of all comments received on the *First Draft Reports* will be published in the *Second Draft Report*, which will also be located on the document's information page under the next edition tab.

For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA Documents, check the NFPA website (<http://www.nfpa.org>) or contact NFPA's Codes and Standards Administration. Those who sent comments to NFPA (Contact Codes and Standards Administration, NFPA, One Batterymarch Park, Quincy, MA 02269-7471) on the related standards are invited to copy ANSI's Board of Standards Review.

## Comment Deadline: November 16, 2017

### NFPA (National Fire Protection Association)

#### Revision

BSR/NFPA 14-201x, Standard for the Installation of Standpipe and Hose Systems (revision of ANSI/NFPA 14-2015)

This standard covers the minimum requirements for the installation of standpipes and hose systems. This standard does not cover requirements for periodic inspection, testing, and maintenance of these systems. (See NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.)

### NFPA (National Fire Protection Association)

#### Revision

BSR/NFPA 16-201x, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems (revision of ANSI/NFPA 16-2014)

This standard contains minimum requirements for the design, installation, and maintenance of foam-water sprinkler and spray systems. These systems shall be designed with the required density for either foam or water application as the controlling factor, depending on the design purpose of the system. It is not the intent of this standard to specify where foam-water sprinkler and spray protection is required. The determination of where foam-water sprinkler and spray systems are required shall be made in accordance with such applicable building and fire codes or standards such as NFPA 30, Flammable and Combustible Liquids Code, or NFPA 409, Standard on Aircraft Hangars. This standard shall apply only to systems using low-expansion foam. (For medium- and high-expansion foam, see NFPA 11, Standard for Low-, Medium-, and High-Expansion Foam.)

### NFPA (National Fire Protection Association)

#### Revision

BSR/NFPA 45-201x, Standard on Fire Protection for Laboratories Using Chemicals (revision of ANSI/NFPA 45-2014)

This standard shall apply to laboratory buildings, laboratory units, and laboratory work areas whether located above or below grade in which chemicals, as defined, are handled or stored. This standard shall not apply to the following:

- (1)\*Laboratories for which the following conditions apply: (a) Laboratory units that contain less than or equal to 4 L (1 gal) of flammable or combustible liquid; (b) Laboratory units that contain less than 2.2 standard m<sup>3</sup> (75 scf) of flammable gas, not including piped-in low-pressure utility gas installed in accordance with NFPA 54, National Fuel Gas Code. A.(1): Either condition of (1) meeting the minimum quantity will bring the lab within the scope of NFPA 45. A school lab with a low-pressure natural gas system supplying Bunsen burners (with less than the minimum quantities of combustible or flammable liquids and less than the minimum quantities of other flammable gases) is an example of a lab outside the scope of NFPA 45.
- (2)\*Laboratories that are pilot plants. A.(2): The hazards of pilot plants are primarily based on the process, the chemistry, and the equipment, not the laboratory environment.
- (3) Laboratories that handle only chemicals with a hazard rating of 0 or 1, as defined by NFPA 704, Standard System for the Identification of the Hazards of Materials for Emergency Response, for all of the following: health, flammability, and instability.
- (4) Laboratories that are primarily manufacturing plants.
- (5) Incidental testing facilities.
- (6) Physical, electronic, instrument, laser, or similar laboratories that use chemicals only for incidental purposes, such as cleaning.
- (7)\*Hazards associated with radioactive materials, as covered by NFPA 801, Standard for Fire Protection for Facilities Handling Radioactive Materials. A.(7). NFPA 801, Standard for Fire Protection for Facilities Handling Radioactive Materials, provides direction for controlling hazards associated with radioactive materials. NFPA 801 should be used only for issues related to radioactive materials in a laboratory. All other nonradioactive, laboratory issues are covered by NFPA 45.
- (8) Laboratories that work only with explosive material, as covered by NFPA 495, Explosive Materials Code. This standard contains requirements, but not all-inclusive requirements, for handling and storage of chemicals where laboratory-scale operations are conducted and shall not cover the following:
  - (1) The special fire protection required when handling explosive materials (See NFPA 495, Explosive Materials Code.)
  - (2) The special fire protection required when handling radioactive materials.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 52-201x, Vehicular Natural Gas Fuel Systems Code (revision of ANSI/NFPA 52-2012)

Natural gas is a flammable gas. It is colorless, tasteless, and nontoxic. It is a light gas, weighing about two-thirds as much as air. As used in the systems covered by this standard, it tends to rise and diffuses rapidly in air when it escapes from the system. Natural gas burns in air with a luminous flame. At atmospheric pressure, the ignition temperature of natural gas–air mixtures has been reported to be as low as 900°F (482°C). The flammable limits of natural gas–air mixtures at atmospheric pressure are about 5 percent to 15 percent by volume natural gas. Natural gas is nontoxic but can cause anoxia (asphyxiation) when it displaces the normal 21 percent oxygen in air in a confined area without adequate ventilation. The concentrations at which flammable or explosive mixtures form are much lower than the concentration at which asphyxiation risk is significant. NFPA 704 rating is as follows: (1) Health — 0, (2) Flammability — 4, (3) Reactivity — 0, (4) Special — None.

Cryogenic fluids are gases that have been liquefied by having their temperature brought below –130°F (–90°C). They are typically stored at low pressures in vacuum-jacketed containers. Some of the potential hazards of cryogenic fluids are the following: (1) Extreme cold that freezes or damages human skin on contact and can embrittle metals, (2) Extreme pressure resulting from rapid vaporization of the fluid during a leak or release of the cryogenic fluid, (3) Asphyxiation resulting from a release of the cryogenic fluid that vaporizes and displaces air. Personnel handling cryogenic fluids should use the protective clothing proscribed on the material safety data sheet (MSDS). This clothing typically includes heavy leather gloves, aprons, and eye protection. This code shall apply to the design, installation, operation, and maintenance of compressed natural gas (CNG) and liquefied natural gas (LNG) engine fuel systems on vehicles of all types and for fueling vehicle (dispensing) systems and associated storage, including the following: (1) Original equipment manufacturers (OEMs); (2) Final-stage vehicle integrator/manufacturer (FSVIM); (3) Vehicle fueling (dispensing) systems.

This code shall apply to the design, installation, operation, and maintenance of liquefied natural gas (LNG) engine fuel systems on vehicles of all types, to their associated fueling (dispensing) facilities, and to LNG-to-CNG facilities with LNG storage in ASME containers of 70,000 gal (265 m<sup>3</sup>) or less. This code shall not apply to those aspects of vehicles and fuel supply containers that are covered by federal motor vehicle safety standards (FMVSSs). This code shall include marine, highway, rail, off-road, and industrial vehicles. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply. Where, in any specific case, different sections of this code specify different materials, methods, or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Manufacturer specifications shall equal or surpass the applicable requirements of this code.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 67-201x, Guideline on Explosion Protection for Gaseous Mixtures in Pipe Systems (revision of ANSI/NFPA 67-2015)

This guide applies to the design, installation, and operation of piping systems containing flammable gases where there is a potential for ignition. This guide addresses protection methods for use where the pipe explosion risk is due to either a deflagration or a detonation. This guide does not apply to runaway reactions, decompositions, or oxidants other than oxygen.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 69-201x, Standard on Explosion Prevention Systems (revision of ANSI/NFPA 69-2013)

This standard applies to the design, installation, operation, maintenance, and testing of systems for the prevention of explosions by means of the following methods: (1) Control of oxidant concentration; (2) Control of combustible concentration; (3) Predeflagration detection and control of ignition sources; (4) Explosion suppression; (5) Active isolation; (6) Passive isolation; (7) Deflagration pressure containment; and (8) Passive explosion suppression.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 70B-201x, Recommended Practice for Electrical Equipment Maintenance (revision of ANSI/NFPA 70B-2015)

This recommended practice applies to preventive maintenance for electrical, electronic, and communication systems, and equipment and is not intended to duplicate or supersede instructions that manufacturers normally provide. Systems and equipment covered are typical of those installed in industrial plants, institutional and commercial buildings, and large multifamily residential complexes. Consumer appliances and equipment intended primarily for use in the home are not included.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 82-201x, Standard on Incinerators and Waste and Linen Handling Systems and Equipment (revision of ANSI/NFPA 82-2013)

This standard covers requirements for the installation, maintenance, and use of waste and recyclables storage rooms, containers, handling systems, incinerators, compactors, and linen- and laundry-handling systems. This standard does not include design criteria for the purpose of reducing air pollution. For such criteria, consult the authorities having jurisdiction. The requirements in this standard shall not apply to one- or two-family residential structures.

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 85-201x, Boiler and Combustion Systems Hazards Code (revision of ANSI/NFPA 85-2014)

This code applies to the following: Technological advances in recent years and, in particular, the pervasiveness of microprocessor-based hardware make it even more important that only highly qualified individuals be employed in applying the requirements of this code to operating systems. Each type of hardware has its own unique features and operational modes. It is vital that the designer of the safety system be completely familiar with the features and weaknesses of the specific hardware and possess a thorough understanding of this code and its intent. It is not possible for this code to encompass all specific hardware applications, nor should this code be considered a “cookbook” for the design of a safety system. In applying any type of equipment to a safety system, the designer should consider carefully all the possible failure modes and the effect that each might have on the integrity of the system and the safety of the unit and personnel. In particular, no single point failure should result in an unsafe or uncontrollable condition or a masked failure of a microprocessor-based system that could result in the operator unwittingly taking action that could lead to an unsafe condition. In this code, the sections that apply to all fuels should be used in conjunction with those sections covering the specific fuel utilized. (1) Single burner boilers, multiple burner boilers, stokers, and atmospheric fluidized bed boilers with a fuel input rating of 3.7 MWt (12.5 million Btu/hr) or greater; (2) Pulverized fuel systems at any heat input rate; and (3) Fired or unfired steam generators used to recover heat from combustion turbines [heat recovery steam generators (HRSGs)] and other combustion turbine exhaust systems at any heat input rate.

This code covers design, installation, operation, maintenance, and training. This code covers strength of the structure; operation and maintenance procedures; combustion and draft control equipment; safety interlocks; and alarms, trips, and other related controls that are essential to safe equipment operation. This code does not cover process heaters used in chemical and petroleum manufacture in which steam generation is incidental to the operation of a processing system. Chapter 5 covers single burner boilers that fire the following fuels:

- (1) Fuel gas as defined in 3.3.74.
- (2)\*Other gas having a calorific value and characteristics similar to natural gas. A.(2) This can include some heavier-than-air gases.
- (3) Fuel oil as defined in 3.3.73.3.
- (4) Fuel gas and fuel oil that are fired simultaneously for fuel transfer.
- (5) Fuel gas and fuel oil that are fired simultaneously and continuously.

Chapter 6 covers multiple burner boilers firing one or more of the following: (1) Fuel gas, as defined in 3.3.74; (2) Fuel oil, as defined in 3.3.73.3; (3) Pulverized coal, as defined in 3.3.73.2.1; (4) Simultaneous firing of more than one of the fuels stated in (1) through (3). Chapter 7 covers atmospheric fluidized bed boilers. Chapter 8 covers HRSG systems and other combustion turbine exhaust systems. (A. It is not possible for this code to encompass the specific hardware applications, nor should it be considered a cookbook for the design of a safe HRSG system. A HRSG is a complex system, often involving numerous components, multiple steam pressure levels, emission control systems, and augmented air or supplementary firing. The simplest combined cycle plant automatically has certain hazards that are common to all designs. Coupling various designs of heat recovery units with combustion turbines of varying characteristics in different configurations (such as varying damper arrangements) can produce unique hazards. The potential ineffective use of the combustion turbine as the source of the purge and potential sources of substantial fuel entering the HRSG from normal and false starts are major considerations that need to be addressed. Other concerns are special provisions, for example, automatic transfer during transients, multiple stacks that can create reverse flows, internal maintenance of the HRSG with the combustion turbine in operation, multiplicity of cross connections between units to prevent shutdown, and fitting the HRSG into a small space using finned tubes that are more sensitive to temperature and subject to iron fires. Insufficient failure analysis of arrangements, configurations, and equipment can increase the number of damaging incidents, lost production, and the possibility of personal injury or death. It is vital that the designer of the combustion turbine and any burner safety system(s) be completely familiar with the features, characteristics, and limitations of the specific hardware and also possess a thorough understanding of this code and its intent. Chapter 9 covers pulverized fuel systems, beginning with the raw fuel bunker, which is upstream of the pulverizer and is the point at which primary air enters the pulverizing system, and terminating at the point where pressure can be relieved by fuel being burned or collected in a device that is built in accordance with this code. The pulverized fuel system shall include the primary air ducts, which are upstream of the pulverizer, to a point where pressure can be relieved. Chapter 10 covers boilers that use a stoker to fire the following fuels: (1) Coal, (2) Wood, (3) Refuse-derived fuel (RDF), (4) Municipal solid waste (MSW), (5) Other solid fuels. (1) Where solid fuel is fired simultaneously with other fuels (e.g., a solid fuel stoker fired in combination with fuel gas, fuel oil, or pulverized auxiliary fuel), additional controls and interlocks shall include those covered in Chapters 5, 6, and 9. Exception No. 1: The purge requirements of Chapters 5 and 6 shall not be required when the stoker is firing and the boiler is on-line. In those cases, if no cooling air is being provided to the auxiliary burners, a purge of their associated air supply ducts shall be provided. Exception No. 2: Where fuel oil or fuel gas is fired in a supervised manual system in accordance with Chapter 5, the excessive steam pressure interlock shall not be required.

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 211-201x, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances (revision of ANSI/NFPA 211-2015)

This standard applies to the design, installation, maintenance, and inspection of all chimneys, fireplaces, venting systems, and solid fuel-burning appliances.

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 253-201x, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source (revision of ANSI/NFPA 253-2014)

This fire test response standard describes a procedure for measuring critical radiant flux behavior of horizontally mounted floor-covering systems exposed to a flaming ignition source in a graded, radiant-heat-energy environment within a test chamber. This fire test response standard measures the critical radiant flux at flameout and provides a basis for estimating one aspect of fire exposure behavior for floor covering systems. (A. The imposed radiant flux simulates the thermal radiation levels likely to impinge on the floors of a building whose upper surfaces are heated by flames, hot gases, or both from a fully developed fire in an adjacent room or compartment.)

## **NFPA (National Fire Protection Association)**

### ***Revision***

BSR/NFPA 262-201x, Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces (revision of ANSI/NFPA 262-2014)

This standard shall prescribe the methodology to measure flame travel distance and optical density of smoke for insulated, jacketed, or both, electrical wires and cables and optical fiber cables that are to be installed in plenums and other spaces used to transport environmental air without being enclosed in raceways. A. This standard is referenced in NFPA 90A, Standard for the Installation of Air-Conditioning and Ventilating Systems, as a test method that electrical wires and cables and optical fiber cables are required to comply with for use in plenums. The pass/fail requirements are a maximum peak optical density of 0.50 or less, an average optical density of 0.15 or less, and a maximum flame spread distance of 1.5 m (5 ft) or less. The National Electrical Code, NFPA 70, contains informational notes that reference this standard, with the same pass/fail requirements, as the test method used to list cables for use in plenums, in articles 725 (Class 1, Class 2, and Class 3 Remote-Control, Signaling, and Power-Limited Circuits), 760 (Fire Alarm Systems), 770 (Optical Fiber Cables and Raceways), 800 (Communications Circuits), 820 (Community Antenna Television and Radio Distribution Systems) and 830 (Network-Powered Broadband Communications Systems). In NFPA 70, a cable complying with the above requirements is said to be "low-smoke-producing cable and fire-resistant cable" by "having adequate fire-resistant and low-smoke-producing characteristics." It should be noted that the fire resistance described in NFPA 70 does not address the same issues that are addressed when testing by use of a temperature-time curve, such as described in ASTM E 119, Standard Test Methods for Fire Tests of Building Construction and Materials. Procedures for testing fire-resistive cables are described in ANSI/UL 2196, Standard for Tests of Fire Resistive Cables. This test method shall not provide information on the fire performance of insulating materials contained in electrical or optical cables in fire conditions other than the ones specifically used in Section 6.6 of this standard, nor shall it measure the contribution of the cables to a developing fire condition. Although this test uses equipment similar to that used in ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, or in ANSI/UL 723, Test for Surface Burning Characteristics of Building Materials, sufficient changes have been made to the chamber so that a test conducted in the apparatus used for ASTM E 84 or ANSI/UL 723 shall not be considered identical or productive of comparable results. A. The changes made in equipment for this test were deemed necessary in order to obtain proper precision from the test when the equipment is used for small quantities of wire and cable, which produce much smaller quantities of heat release and smoke obscuration. Because this standard does not purport to address all of the safety problems associated with its use, it shall be the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

## **NFPA (National Fire Protection Association)**

### ***Revision***

BSR/NFPA 265-201x, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Walls (revision of ANSI/NFPA 265-2014)

This standard describes a test method for determining the contribution of textile or expanded vinyl wall coverings to room fire growth during specified fire-exposure conditions. This test method shall be used to evaluate the flammability characteristics of textile or expanded vinyl wall coverings where such materials constitute the exposed interior surfaces of buildings and demountable, relocatable, full height partitions used in open building interiors. (A. Demountable, relocatable, full-height partitions include demountable, relocatable, full-height partitions that fill the space between the finished floor and the finished ceiling.) This test method shall not be used to evaluate the fire-resistance of assemblies, nor shall it be used to evaluate the effect of fires originating within a wall assembly. This test method shall not be used for the evaluation of floor or ceiling finishes. (A. One important difference between the ignition source in this test method and that used in NFPA 286, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth, is that the flame in the NFPA 265 ignition source does not reach the ceiling. Thus, the NFPA 265 ignition source should not be used for testing materials that are to be installed on the ceiling.) This test method shall not apply to fabric-covered, lower-than-ceiling-height, freestanding, prefabricated panel furniture systems. (A. Freestanding panel furniture systems include all freestanding panels that provide visual separation, acoustical separation, or both and that are intended to be used to divide space or to support components to form complete work stations.)

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 276-201x, Standard Method of Fire Test for Determining the Heat Release Rate of Roofing Assemblies with Combustible Above-Deck Roofing Components (revision of ANSI/NFPA 276-2014)

In August 1953, the 35-acre General Motors HydroMatic factory in Livonia, MI, was destroyed by fire. Unprotected steel construction and the thin steel deck, which permitted the asphalt built-up roof covering to melt, drip through joints, and thereby contribute to fire spread within the building, were factors cited as responsible for the extent of the loss. The fire resulted in the largest industrial fire loss in the United States to that date. A 20 ft × 100 ft (6.1 m × 30.5 m) test structure was constructed to facilitate the analysis of the potential for contribution of roof-covering materials to fire spread within a building. Subsequent analysis consisted of a series of five large-scale fire tests utilizing different roof deck constructions, one of which represented the roof deck construction used in the General Motors factory. Based on those large-scale fire tests, a roof deck construction evaluated for the purpose of establishing limits for underdeck fire spread consisted of a built-up steel roof deck system. Based on this full-scale testing, Factory Mutual (FM) developed the fire test procedure described in Appendix B of FM 4450, Class 1 Insulated Steel Deck Roofs, and incorporated only the wood fiberboard sample (on a steel deck with a steel cover) and not the roof-covering materials. The roof-covering materials were not included because research at FM determined that they did not contribute significantly to the heat release. In a 1959 NFPA article, "The FM Construction Materials Calorimeter," Thompson and Cousins reported on the development of the roof calorimeter test apparatus. The heat release contribution from this roof deck assembly was used to establish the 3-minute, 5-minute, 10-minute, and 30-minute average heat release limits. The wood fiberboard material used in the original test series is no longer available, but a substitute material has been identified. The wood fiberboard currently used in the test specimen provides the same heat release rate limits that are prescribed in Section 8.4. This standard describes a method for determining the heat release rate from below the deck of roofing assemblies that have combustible above-deck roofing components when the assemblies are exposed to a fire from below the roof deck. (A. This test was originally developed as a part of FM 4450, Class 1 Insulated Steel Deck Roofs.) The performance of the above-deck roofing assembly is evaluated by determining the heat release rate below the deck of the roof test specimen. This test method is based on the substitution method for measuring the heat release rate by using an auxiliary fuel (propane) to provide the surrogate heat release rate. (A. Additional information on substitution method calorimetry is provided in Section 3, Chapter 2 of the SFPE Handbook of Fire Protection Engineering.)

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 286-201x, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth (revision of ANSI/NFPA 286-2014)

This standard describes a method for determining the contribution of interior finish materials to room fire growth during specified fire exposure conditions. The performance of all wall- and ceiling-covering systems is addressed in this standard. Textile and expanded vinyl wall-covering systems are included in this standard and they are also addressed specifically in NFPA 265, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Walls. Further information on testing of textile wall coverings can be found in Fisher et al., Room Fire Tests of Textile Wall Coverings. Textile and expanded vinyl wall coverings are permitted by some codes (e.g., NFPA 101, Life Safety Code) to be tested using NFPA 265. This method is intended for the evaluation of the flammability characteristics of wall and ceiling interior finish, where such materials constitute the exposed interior surfaces of buildings. This fire test method is not intended for the evaluation of fire resistance of assemblies, nor is it intended for the evaluation of the effect of fires that originate within a wall assembly. This standard specifies three types of specimen mounting, depending on the application of the interior finish material, as follows: (1) Three walls (for interior finish to be used on walls only); (2) Three walls and the ceiling (for interior finish to be used on walls and ceilings); and (3) The ceiling alone (for interior finish to be used on ceilings only).

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 551-201x, Guide for the Evaluation of Fire Risk Assessments (revision of ANSI/NFPA 551-2012)

This guide is intended to provide assistance, primarily to authorities having jurisdiction (AHJs), in evaluating the appropriateness and execution of a fire risk assessment (FRA) for a given fire safety problem. While this guide primarily addresses regulatory officials, it also is intended for others who review FRAs, such as insurance company representatives and building owners.

## **NFPA (National Fire Protection Association)**

### **Revision**

BSR/NFPA 701-201x, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films (revision of ANSI/NFPA 701-2014)

Test Method 1. A small-scale test method appeared in NFPA 701 until the 1989 edition. It was eliminated from the test method because it has been shown that materials that "pass" the test do not necessarily exhibit a fire performance that is acceptable. The test was not reproducible for many types of fabrics and could not predict actual full-scale performance. It should not, therefore, be used. (1) Test Method 1 shall apply to fabrics or other materials used in curtains, draperies, or other window treatments. Vinyl-coated fabric blackout linings shall be tested according to Test Method 2. (2) Test Method 1 shall apply to single-layer fabrics and to multilayer curtain and drapery assemblies in which the layers are fastened together by sewing or other means. Vinyl-coated fabric blackout linings shall be tested according to Test Method 2. (3) Test Method 1 shall apply to specimens having an areal density less than or equal to 700 g/m<sup>2</sup> (21 oz/yd<sup>2</sup>), except where Test Method 2 is required to be used.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 801-201x, Standard for Fire Protection for Facilities Handling Radioactive Materials (revision of ANSI/NFPA 801-2013)

This standard addresses fire protection requirements intended to reduce the risk of fires and explosions at facilities handling radioactive materials. (A. The objectives of this standard are to reduce personal hazards, provide protection from property damage, and minimize process interruption resulting from fire and explosion. Radioactive contamination might or might not be a factor in these risks.) This standard shall not apply to commercial power-generating reactors that are covered by NFPA 804, Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants; NFPA 805, Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants; and NFPA 806, Performance-Based Standard for Fire Protection for Advanced Nuclear Reactor Electric Generating Plants Change Process.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 900-201x, Building Energy Code (revision of ANSI/NFPA 900-2015)

These regulations shall control the minimum energy-efficient requirements for the following: (1) The design, construction, reconstruction, alteration, repair, demolition, removal, inspection, issuance, and revocation of permits or licenses, installation of equipment related to energy conservation in all buildings and structures and parts thereof; (2) The rehabilitation and maintenance of construction related to energy efficiency in existing buildings; (3) The standards or requirements for materials to be used in connection therewith.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 914-201x, Code for Fire Protection of Historic Structures (revision of ANSI/NFPA 914-2014)

This code describes principles and practices of fire safety for historic structures and for those who operate, use, or visit them. Collections within libraries, museums, and places of worship are not within the scope of this code. (A. Collections within libraries, museums, and places of worship should be evaluated and protected in accordance with NFPA 909, Code for the Protection of Cultural Resource Properties - Museums, Libraries, and Places of Worship.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 1003-201x, Standard for Airport Fire Fighter Professional Qualifications (revision of ANSI/NFPA 1003-2014)

This standard identifies the minimum job performance requirements for the airport fire fighter who is responsible for aircraft rescue and fire fighting.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 1005-201x, Standard for Professional Qualifications for Marine Fire Fighting for Land-Based Fire Fighters (revision of ANSI/NFPA 1005-2013)

This standard identifies the minimum job performance requirements (JPRs) for marine fire fighting for land-based fire fighters.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 1041-201x, Standard for Fire Service Instructor Professional Qualifications (revision of ANSI/NFPA 1041-2011)

This standard identifies minimum job performance requirements (JPRs) for fire service instructors.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 1091-201x, Standard for Traffic Control Incident Management Personnel Professional Qualifications (revision of ANSI/NFPA 1091-2014)

This standard identifies the minimum job performance requirements (JPRs) for traffic control incident management personnel.

**NFPA (National Fire Protection Association)****Revision**

BSR/NFPA 1402-201x, Guide to Building Fire Service Training Centers (revision of ANSI/NFPA 1402-2011)

This guide addresses the design and construction of facilities for fire service training. It covers the aspects that should be considered when planning a fire service training center. It should be understood that it is impractical to list every item that might be included in a training center or every type of specialty training facility that might be constructed. Therefore, the main components of a training center necessary to accomplish general fire fighter training effectively, efficiently, and safely are presented here.

## **NFPA (National Fire Protection Association)**

### ***Revision***

BSR/NFPA 1600-201x, Standard on Disaster/Emergency Management and Business Continuity/Continuity of Operations Programs (revision of ANSI/NFPA 1600-2015)

This standard shall establish a common set of criteria for all hazards disaster/emergency management and business continuity programs, referred to in this standard as “the program.” The Emergency Management and Business Continuity community comprises many different entities, including the government at distinct levels (e.g., federal, state/provincial, territorial, tribal, indigenous, and local levels); commercial business and industry; not-for-profit and nongovernmental organizations; and individual citizens. Each of these entities has its own focus, unique mission and responsibilities, varied resources and capabilities, and operating principles and procedures.

## **NFPA (National Fire Protection Association)**

### ***Revision***

BSR/NFPA 1851-201x, Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting (revision of ANSI/NFPA 1851-2013)

This standard shall specify the minimum selection, care, and maintenance requirements for structural-fire-fighting protective ensembles and the individual ensemble elements that include garments, helmets, gloves, footwear, and interface components that are compliant with NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting. This standard shall also specify the minimum selection, care, and maintenance requirements for proximity-fire-fighting protective ensembles and the individual ensemble elements that include garments, helmets, gloves, footwear, and interface components that are compliant with NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting. This standard shall also specify requirements for both structural-fire-fighting and proximity-fire-fighting protective ensembles, ensemble elements, clothing, and equipment certified as compliant with previous editions of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting; NFPA 1972, Standard on Helmets for Structural Fire Fighting; NFPA 1973, Standard on Gloves for Structural Fire Fighting; NFPA 1974, Standard on Protective Footwear for Structural Fire Fighting; or NFPA 1976, Standard on Protective Ensembles for Proximity Fire Fighting. This standard shall also specify the minimum selection, care, and maintenance requirements for structural-fire-fighting protective ensembles with optional CBRN protection and for proximity-fire-fighting protective ensembles with optional CBRN protection. This standard shall not specify requirements for other organizational programs such as appropriate use of structural-fire-fighting or proximity-fire-fighting protective ensembles for training, for operations, or for infection control, because these programs are under the jurisdiction of other NFPA standards. This standard shall not apply to protective ensembles or protective clothing that are compliant with NFPA 1951, Standard on Protective Ensembles for Technical Rescue Incidents; NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting; NFPA 1991, Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies; NFPA 1992, Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies; NFPA 1994, Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents; and NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations. This standard shall not be construed as addressing all the safety concerns associated with the use of compliant protective ensembles or ensemble elements. It shall be the responsibility of the persons and organizations that use compliant protective ensembles or ensemble elements to establish safety and health practices and to determine the applicability of regulatory limitations prior to use. This standard shall not be construed as addressing all the safety concerns, if any, associated with the use of this standard by testing or repair facilities. It shall be the responsibility of the persons and organizations that use this standard to conduct testing of protective ensembles or ensemble elements to establish safety and health practices and to determine the applicability of regulatory limitations prior to using this standard for any designing, manufacturing, and testing. Nothing herein shall restrict any jurisdiction from exceeding these minimum requirements.

## **NFPA (National Fire Protection Association)**

### ***Revision***

BSR/NFPA 1963-201x, Standard for Fire Hose Connections (revision of ANSI/NFPA 1963-2013)

This standard gives the performance and requirements for new fire hose couplings and adapters with nominal sizes from 3/4 in. (19 mm) through 8 in. (200 mm) and the specifications for the screw thread connections on those couplings and adapters. (A. Some fire-fighting organizations use small hose less than 3/4 in. (19 mm) nominal diameter fitted with garden hose couplings. Such couplings should have 0.75-11.5 NH (garden hose thread) threads conforming to ANSI/ASME B1.20.7, Standard on Hose Coupling Screw Threads.) This standard also gives the performance and requirements for the mating surfaces of non-threaded fire hose couplings and adapters with nominal sizes of 4 in. (100 mm) and 5 in. (125 mm).

## NFPA (National Fire Protection Association)

### Revision

BSR/NFPA 1975-201x, Standard on Emergency Services Work Clothing Elements (revision of ANSI/NFPA 1975-2013)

This standard shall specify requirements for the design, performance, testing, and certification of nonprimary protective work apparel and the individual garments comprising work apparel. Work apparel garments shall not include socks, dress uniforms, and specific types of undergarments including briefs, boxer shorts, boxer briefs, and bras. (A. Work apparel is made from thermally stable materials. Garments such as fitness clothing and underclothing might not be made from thermally stable materials and should not be worn while on duty. Such non-thermally stable garments are made from fibers with relatively low melting points and can contribute to burn injury. These types of performance fitness clothing should also not be worn as undergarments beneath work apparel.) This standard shall also specify requirements for the thermal stability of textiles used in the construction of work apparel. This standard shall also specify optional requirements for flame resistance, odor resistance, water resistance, and insect repellency where such options are specified or claimed to be used in construction of work apparel. This standard shall not specify requirements for clothing that is intended to provide primary protection from given hazard exposures. (A. Work apparel that are certified as compliant only with NFPA 1975 are not primary protective garments and cannot be relied on to provide protection from specific hazards, such as those encountered during structural or wildland fire fighting.) Other standards are written for garments that provide primary protection for specific hazards to which fire fighters can be exposed while participating in emergency operations or training. However, compliant work apparel could also be certified to another standard for primary protective garments and thus be both a primary protective garment for the specific hazard that the other standard addresses and a work apparel that is compliant with NFPA 1975. Station/work uniforms that receive such dual certification (to NFPA 1975 and to a primary protective garment standard) would always exceed the minimum requirements of NFPA 1975. Examples of primary protective garment standards include, but are not limited to, NFPA 1951, Standard on Protective Ensembles for Technical Rescue Incidents; NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting; NFPA 1994, Standard on Protective Ensembles for First Responders to CBRN Terrorism Incidents; and NFPA 1999, Standard on Protective Clothing for Emergency Medical Operations. Certification of work apparel to the requirements of this standard shall not preclude certification to additional applicable standards for primary protective clothing where the clothing meets all requirements of each standard. (A. The authority having jurisdiction should conduct a risk assessment and determine the level of visibility required for work apparel based on the anticipated use of such garments during these incidents. Where the AHJ anticipates visibility hazards, such as darkness, obscuration (smoke, fog, dust), and proximity to traffic, moving machinery, or heavy equipment operation, the AHJ should be aware of various types of visibility markings. In the case of personnel operating in proximity to traffic, moving machinery, or heavy equipment in operation, the AHJ needs to understand that special high-visibility markings are required by 23 CFR 655. This regulation requires that the Manual on Uniform Traffic Control Devices (MUTCD) be followed on all roads open to public travel. In Section 6D.03, the MUTCD specifies that all workers, including emergency responders, within the right-of-way who are exposed either to traffic or to work vehicles and construction equipment within the Temporary Traffic Control (TTC) zone shall wear high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of ANSI/ISEA 107, High-Visibility Safety Apparel and Headwear. Section 6D.03 includes an option specifying that in lieu of ANSI/ISEA 107 apparel, emergency and incident responders and law enforcement personnel within the TTC zone may wear high-visibility safety apparel that meets the performance requirements of ANSI/ISEA 207, High-Visibility Public Safety Vests. An additional option within Section 6D.03 specifies that fire fighters and other emergency responders working within the right-of-way and engaged in emergency operations that directly expose them to flame, fire, heat, or hazardous materials may wear retroreflective turn-out gear that is specified and regulated by other organizations, such as NFPA.) Users are encouraged to conduct a wear trial and develop user findings and recommendations when dealing with work clothing elements that make claims to provide moisture management. Moisture management clothing can also be described as wicking, active transport, or similar descriptive terms that imply the comfort to the wearer and moving sweat away from the body. The authority having jurisdiction should be aware that it can be difficult to objectively quantify findings or such claims. User perception of comfort should be considered over such claims of moisture management. This standard shall not be construed as addressing all of the safety concerns associated with the use of compliant work apparel garments for their personnel. It shall be the responsibility of the persons and organizations that use compliant work apparel garments to establish safety and health practices and determine the applicability of regulatory limitations prior to use. This standard shall not be construed as addressing all of the safety concerns, if any, associated with the use of this standard by testing facilities. It shall be the responsibility of the persons and organizations that use this standard to conduct testing of work apparel garments to establish safety and health practices and determine the applicability of regulatory limitations prior to using this standard for any designing, manufacturing, and testing. This standard shall not specify requirements for any accessories that could be attached to the certified product but are not necessary for the certified product to meet the requirements of this standard. (A. Emergency response organizations are cautioned that accessories are not a part of the certified product but could be attached to the certified product by a means not engineered, manufactured, or authorized by the manufacturer. Emergency response organizations are cautioned that if the accessory or its means of attachment causes the structural integrity of the certified product to be compromised, the certified product might not comply with the standard for which it was designed, manufactured, and marketed. Additionally, if the accessory or its attachment means are not designed and manufactured from materials suitable for the hazardous environments of emergency incidents, the failure of the accessory or its attachment means could cause injury to the emergency responder. Because the aftermarket for certified product accessories is so broad, fire and emergency response organizations are advised to contact both the manufacturer of the accessory and the manufacturer of the certified product and verify that the accessory and its means of attachment are suitable for use in the intended emergency response environment. Emergency response organizations should seek and receive written documentation from both the accessory manufacturer and the manufacturer of the certified product to validate the following information: (1) The accessory for a certified product, and its attachment method, will not degrade the designed protection or performance of the certified product below the requirements of the product standard to which it was designed, manufactured, tested, and certified; (2) The accessory, when properly attached to the certified product, shall not interfere with the operation or function of the certified product, or with the operation or function of any of the certified product's component parts. Users are also cautioned that the means of attachment of the accessory that fail to safely and securely attach the accessory to the certified product can cause the accessory to be inadvertently dislodged from the certified product and create a risk to the wearer or other personnel in the vicinity. Nothing in this standard shall restrict any jurisdiction or manufacturer from exceeding these minimum requirements.

# Call for Members (ANS Consensus Bodies)

Directly and materially affected parties who are interested in participating as a member of an ANS consensus body for the standards listed below are requested to contact the sponsoring standards developer directly and in a timely manner.

## **AAMI (Association for the Advancement of Medical Instrumentation)**

**Office:** 4301 N. Fairfax Dr., Suite 301  
Arlington, VA 22203

**Contact:** *Amanda Benedict*

**Phone:** (703) 253-8284

**Fax:** (703) 276-0793

**E-mail:** [abenedict@aami.org](mailto:abenedict@aami.org)

BSR/AAMI ST41-2008 (R201x), Ethylene oxide sterilization in health care facilities: Safety and effectiveness (reaffirmation of ANSI/AAMI ST41-2008 (R2012))

BSR/AAMI/ISO 11138-7-201x, Sterilization of health care products - Biological indicators - Part 7: Guidance for the selection, use and interpretation of results (identical national adoption of ISO/DIS 11138 -7 and revision of ANSI/AAMI/ISO 14161-2009 (R2014))

BSR/AAMI/ISO 11139-201x, Sterilization of health care products - Vocabulary - Terms used in sterilization and related equipment and process standards (identical national adoption of ISO 11139)

BSR/AAMI/ISO 13408-6-201x, Aseptic processing of health care products - Part 6: Isolator systems (identical national adoption of ISO 13408-6 (in development) and revision of ANSI/AAMI/ISO 13408-6 -2005 (R2013))

ANSI/AAMI/ISO 13408-6-2005/A1-2013)

BSR/AAMI/ISO 11135-201x Amd.1, Sterilization of health-care products - Ethylene oxide - Requirements for the development, validation and routine control of a sterilization process for medical devices - Amendment 1: Revision of Annex E, Single batch release (identical national adoption of ISO 11135:2014/DAM 1)

## **ASA (ASC S3) (Acoustical Society of America)**

**Office:** 1305 Walt Whitman Road Suite 300  
Melville, NY 11747

**Contact:** *Neil Stremmel*

**Phone:** (631) 390-0215

**Fax:** (631) 923-2875

**E-mail:** [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

BSR/ASA S3.42-2012/Part 2/IEC 60118-15:2012 (R201x), Testing Hearing Aids - Part 2: Methods for characterizing signal processing in hearing aids with a speech-like signal (a nationally adopted international standard) (reaffirmation of ANSI/ASA S3.42-2012/Part 2/IEC 60118-15:2012)

## **ASSE (ASC A10) (American Society of Safety Engineers)**

**Office:** 520 N. Northwest Highway  
Park Ridge, IL 60068

**Contact:** *Tim Fisher*

**Phone:** (847) 768-3411

**Fax:** (847) 296-9221

**E-mail:** [TFisher@ASSE.org](mailto:TFisher@ASSE.org)

BSR ASSE A10.28-201X, Safety Requirements for Work Platforms Suspended from Cranes or Derricks (revision of ANSI ASSE A10.28 -2011)

## **ECIA (Electronic Components Industry Association)**

**Office:** 2214 Rock Hill Road  
Suite 265  
Herndon, VA 20170-4212

**Contact:** *Laura Donohoe*

**Phone:** (571) 323-0294

**Fax:** (571) 323-0245

**E-mail:** [ldonohoe@ecianow.org](mailto:ldonohoe@ecianow.org)

BSR/EIA 973-201x, Specification for M12 Hybrid (Data and Power) Circular Connector (new standard)

## **ITI (INCITS) (InterNational Committee for Information Technology Standards)**

**Office:** 1101 K Street, NW  
Suite 610  
Washington, DC 20005-3922

**Contact:** *Barbara Bennett*

**Phone:** (202) 737-8888

**Fax:** (202) 638-4922

**E-mail:** [comments@standards.incits.org](mailto:comments@standards.incits.org)

INCITS 11-1990 [S2017], General Purpose Paper Cards for Information Processing (stabilized maintenance of INCITS 11-1990 (R2002))  
September 8, 2017 Standards Action Announcement  
This announcement is made in accordance with 4.7.3 Stabilized maintenance of American National Standards of the ANSI Essential Requirements ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)).

**NECA (National Electrical Contractors Association)**

**Office:** 3 Bethesda Metro Center  
Suite 1100  
Bethesda, MD 20814

**Contact:** *Agnieszka Golriz*

**Phone:** (301) 215-4549

**E-mail:** [Aga.golriz@necanet.org](mailto:Aga.golriz@necanet.org)

BSR/NECA 102-201X, Standard for Installing Aluminum Rigid Metal Conduit (RMC) (new standard)

BSR/NECA 121-201X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground Feeder and Branch-Circuit Cable (Type UF) (new standard)

**NEMA (ASC C136) (National Electrical Manufacturers Association)**

**Office:** 1300 North 17th Street  
Suite 900  
Rosslyn, VA 22209

**Contact:** *Karen Willis*

**Phone:** (703) 841-3277

**Fax:** (703) 841-3378

**E-mail:** [Karen.Willis@nema.org](mailto:Karen.Willis@nema.org)

BSR C136.41-201X, Standard for Roadway and Area Lighting Equipment - Dimming Control between an External Locking Type Photocontrol and Ballast or Driver (revision of ANSI C136.41-2013)

**NSF (NSF International)**

**Office:** 789 N. Dixboro Road  
Ann Arbor, MI 48105-9723

**Contact:** *Monica Leslie*

**Phone:** (734) 827-5643

**Fax:** (734) 827-7880

**E-mail:** [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 42-201x (i96r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2016)

BSR/NSF 44-201x (i43), Residential Cation Exchange Water Softeners (revision of ANSI/NSF 44 2016)

BSR/NSF 51-201x (i15r1), Food Equipment Materials (revision of ANSI/NSF 51-2014)

BSR/NSF 55-201x (i44), Ultraviolet Microbiological Water Treatment Systems (revision of ANSI/NSF 55-2017)

BSR/NSF 58-201x (i79), Reverse Osmosis Drinking Water Treatment Systems (revision of ANSI/NSF 58-2017)

BSR/NSF 60-201x (i78r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF 60-2016)

BSR/NSF 61-201x (i138r1), Drinking Water System Components - Health effects (revision of ANSI/NSF 61-2016)

BSR/NSF 62-201x (i34), Drinking Water Distillation Systems (revision of ANSI/NSF 62 2016)

BSR/NSF 401-201x (i9), Drinking water treatment units - Emerging compounds/incidental contaminants (revision of ANSI/NSF 401 2017)

**TIA (Telecommunications Industry Association)**

**Office:** 1320 North Courthouse Road  
Suite 200  
Arlington, VA 22201

**Contact:** *Teesha Jenkins*

**Phone:** (703) 907-7706

**Fax:** (703) 907-7727

**E-mail:** [standards@tiaonline.org](mailto:standards@tiaonline.org)

BSR/TIA 102.BAJC-B-201x, Tier 2 Location Services Specification (revision and redesignation of ANSI/TIA 102.BAJC-A-2015)

BSR/TIA 568.0-D-2-201x, Generic Telecommunications Cabling for Customer Premises, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology (addenda to ANSI/TIA 568.0-D-1-2017)

BSR/TIA 862-B-2-201x, Structured Cabling Infrastructure Standard for Intelligent Building Systems, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology (addenda to ANSI/TIA 862-B-2016)

**UAMA (ASC B7) (Unified Abrasives Manufacturers' Association)**

**Office:** 30200 Detroit Road  
Cleveland, OH 44145-1967

**Contact:** *Donna Haders*

**Phone:** (440) 899-0010

**Fax:** (440) 892-1404

**E-mail:** [djh@wherryassoc.com](mailto:djh@wherryassoc.com)

BSR B7.1-201x, Safety Requirements for the Use, Care and Protection of Abrasive Wheels (revision of ANSI B7.1-2010)

**UL (Underwriters Laboratories, Inc.)**

**Office:** 12 Laboratory Drive  
Reeseearch Triangle Park, NC 27709

**Contact:** *Theresa Espejo*

**Phone:** (416) 288-2212

**E-mail:** [theresa.espejo@ul.com](mailto:theresa.espejo@ul.com)

BSR/UL 864-201X, Standard for Safety for Control Units and Accessories for Fire Alarm Systems (revision of ANSI/UL 864-2014)

**WMMA (ASC O1) (Wood Machinery Manufacturers of America)**

**Office:** 9 Newport Drive  
Suite 200  
Forest Hill, MD 21050

**Contact:** *Jennifer Miller*

**Phone:** (443) 640-1052

**Fax:** (443) 640-1031

**E-mail:** [jennifer@wmma.org](mailto:jennifer@wmma.org)

BSR O1.1-201x, Woodworking Machinery Safety Requirements (revision of ANSI O1.1-2013)

## **Call for Members (ANS Consensus Bodies)**

### **Call for Committee Members**

#### **ASC O1 – Safety Requirements for Woodworking Machinery**

Are you interested in contributing to the development and maintenance of valuable industry safety standards? The ASC O1 is currently looking for members in the following categories:

- General Interest
- Government
- Producer
- User

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at [jennifer@wmma.org](mailto:jennifer@wmma.org).

# Final Actions on American National Standards

The standards actions listed below have been approved by the ANSI Board of Standards Review (BSR) or by an ANSI-Audited Designator, as applicable.

## ACMA (American Composites Manufacturers Association)

### Revision

ANSI/ACMA/FGMC-Grating Manual-2017, Fiberglass Composites Grating Manual for Pultruded and Molded Grating and Stair Treads (revision and redesignation of ANSI/ACMA/FGMC-Manual-2014): 8/30/2017

## ASABE (American Society of Agricultural and Biological Engineers)

### New Standard

ANSI/ASABE S613-4-AUG2017, Tractors and self-propelled machinery for agriculture - Air quality systems for cabs - Part 4: Performance test of a cab (new standard): 8/30/2017

## IEEE (Institute of Electrical and Electronics Engineers)

### Revision

ANSI/IEEE 1609.4-2016, Standard for Wireless Access in Vehicular Environments (WAVE) - Multi-Channel Operation (revision of ANSI/IEEE 1609.4-2011): 8/21/2017

ANSI/IEEE C57.13-2016, Standard Requirements for Instrument Transformers (revision of ANSI/IEEE C57.13-2008): 8/21/2017

## NSF (NSF International)

### Revision

- \* ANSI/NSF 42-2017 (i95r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2016): 8/24/2017
- \* ANSI/NSF 50-2017 (i128r1), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016): 8/25/2017

## UL (Underwriters Laboratories, Inc.)

### New Standard

ANSI/UL 2748A-2017, Standard for Safety for Arcing Fault Interrupting Devices (new standard): 8/29/2017

### Revision

- ANSI/UL 340-2017, Standard for Safety for Comparative Flammability of Liquids (revision of ANSI/UL 340-2009 (R2014)): 7/24/2017
- \* ANSI/UL 778-2017b, Standard for Safety for Motor-Operated Water Pumps (revision of ANSI/UL 778-2016): 8/24/2017
- \* ANSI/UL 778-2017c, Standard for Safety for Motor-Operated Water Pumps (revision of ANSI/UL 778-2016): 8/24/2017
- \* ANSI/UL 778-2017d, Standard for Safety for Motor-Operated Water Pumps (revision of ANSI/UL 778-2016): 8/24/2017
- \* ANSI/UL 858-2017a, Standard for Safety for Household Electric Ranges (revision of ANSI/UL 858-2017): 8/30/2017

- \* ANSI/UL 858-2017b, Standard for Safety for Household Electric Ranges (revision of ANSI/UL 858-2017): 8/30/2017
- \* ANSI/UL 1026-2017a, Standard for Safety for Household Electric Cooking and Food Serving Appliances (Proposal dated 7-21-17) (revision of ANSI/UL 1026-2017): 8/24/2017
- \* ANSI/UL 1951-2017a, Standard for Safety for Electric Plumbing Accessories (revision of ANSI/UL 1951-2016): 8/25/2017
- ANSI/UL 2196-2017, Standard for Safety for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control, and Data Cables (revision of ANSI/UL 2196-2006 (R2012)): 8/29/2017
- ANSI/UL 2196-2017a, Standard for Fire Test for Circuit Integrity of Fire-Resistive Power, Instrumentation, Control, and Data Cables (revision of ANSI/UL 2196-2006 (R2012)): 8/29/2017
- ANSI/UL 2775-2017, Standard for Fixed Condensed Aerosol Extinguishing System Units (revision of ANSI/UL 2775-2016): 8/30/2017

# Project Initiation Notification System (PINS)

ANSI Procedures require notification of ANSI by ANSI-accredited standards developers (ASD) of the initiation and scope of activities expected to result in new or revised American National Standards (ANS). Early notification of activity intended to reaffirm or withdraw an ANS and in some instances a PINS related to a national adoption is optional. The mechanism by which such notification is given is referred to as the PINS process. For additional information, see clause 2.4 of the ANSI Essential Requirements: Due Process Requirements for American National Standards.

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. To view information about additional standards for which a PINS has been submitted and to search approved ANS, please visit [www.NSSN.org](http://www.NSSN.org), which is a database of standards information. Note that this database is not exhaustive.

Directly and materially affected interests wishing to receive more information or to submit comments are requested to contact the standards developer directly within 30 days of the publication of this announcement.

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## **AAMI (Association for the Advancement of Medical Instrumentation)**

Contact: *Cliff Bernier, (703) 253-8263, [cbernier@aami.org](mailto:cbernier@aami.org)*

BSR/AAMI/ISO 11138-7-201x, Sterilization of health care products - Biological indicators - Part 7: Guidance for the selection, use and interpretation of results (identical national adoption of ISO/DIS 11138-7 and revision of ANSI/AAMI/ISO 14161-2009 (R2014))

Stakeholders: Manufacturers, users, and regulators of BIs.

Project Need: Update guidance on selection, use and interpretation of results of BIs.

Provides guidance for the selection, use, and interpretation of results from application of biological indicators when used in the development, validation, and routine monitoring of sterilization processes.

BSR/AAMI/ISO 11135-201x Amd.1, Sterilization of health-care products - Ethylene oxide - Requirements for the development, validation and routine control of a sterilization process for medical devices - Amendment 1: Revision of Annex E, Single batch release (identical national adoption of ISO 11135:2014/DAM 1)

Stakeholders: Manufacturers, users and regulators of ethylene oxide sterilization.

Project Need: Provides requirements for release of product from a single batch.

Specifies the requirements for the release of product from a single batch for a sterilization process where there is only sufficient product to comprise a single sterilization load, for example, during research and development of new product or for clinical trial product. This approach is not intended for routine sterilization. Single-batch release data can be used in validation of the sterilization process under an approved protocol.

## **AAMI (Association for the Advancement of Medical Instrumentation)**

Contact: *Jennifer Moyer, (703) 253-8274, [jmoyer@aami.org](mailto:jmoyer@aami.org)*

BSR/AAMI/ISO 13408-6-201x, Aseptic processing of health care products - Part 6: Isolator systems (identical national adoption of ISO 13408-6 (in development) and revision of ANSI/AAMI/ISO 13408-6-2005 (R2013) and ANSI/AAMI/ISO 13408-6-2005/A1-2013)

Stakeholders: Manufacturers, regulators, test houses, clinicians.

Project Need: This second edition has an expanded scope, which is needed for progressing the market situation.

Specifies the requirements for isolator systems used for aseptic processing and offers guidance on qualification, bio-decontamination, validation, operation, and control of isolator systems used for aseptic processing of health care products. The document focuses on the use of isolator systems to maintain aseptic conditions; this may include applications for hazardous materials

## **ADA (American Dental Association)**

Contact: *Paul Bralower, (312) 587-4129, [bralowerp@ada.org](mailto:bralowerp@ada.org)*

BSR/ADA 167-201x, Dental Unit Water Line Test Methods (identical national adoption of ISO 16954:2015)

Stakeholders: Dentists, dental manufacturers.

Project Need: This standard will provide dentists with needed tests for evaluating treatments for the removal of biofilm from dental unit water delivery systems.

This standard will provide test methods for evaluating the effectiveness of treatment methods intended to prevent or inhibit the formation of biofilm in dental unit water delivery systems.

**APCO (Association of Public-Safety Communications Officials-International)**

Contact: *Crystal McDuffie, (386) 322-2500, mcduffiec@apcointl.org; standards@apcointl.org*

BSR/APCO 3.110.1-201x, Cyber Security Training for Public Safety Communications Personnel (new standard)

Stakeholders: Public Safety Communications producers, users, and general interest.

Project Need: Traditionally, 9-1-1 call centers have operated and existed as stand-alone networks whose closed-network architecture has helped insulate their information, systems and networks from electronic security threats. However, NG9-1-1 PSAPs, will be required to exist in a connected world, networked with local public safety departments and tied to local, regional, and federal agencies so that all emergency-related information can be shared at multiple levels. While this connectivity provides significant and notable benefits in our ability to respond to emergencies, it leaves the agencies much more exposed to viruses, denial-of-service attacks, intrusions by malicious actors, data loss and system downtime. In addition to physical and network/systems security, which has already been addressed by other standards development organizations, there is a need to develop a uniform approach to cyber security personnel training and cyber hygiene.

This standard will provide guidance and direction in developing cyber security training programs that will help deal with emerging threats to the public safety communications sector. Training of telecommunicators, supervisors, network administrators, and multiple levels of management is critical to recognizing and mitigating numerous threats which include, but are not limited to viruses, trojans, denial-of-service attacks, and other intrusions by malicious actors. These attacks can result in data loss and system downtime. In order to maintain effective operation and delivery of public safety services, this standard will address multiple levels, and types, of personnel training as it relates to an overall cyber security strategy for the emergency communications sector.

**ASCE (American Society of Civil Engineers)**

Contact: *James Neckel, 703-295-6176, jneckel@asce.org*

BSR/ASCE T&DI 21-201x, Automated People Mover Standard (revision of ANSI/ASCE T&DI 21-2013)

Stakeholders: Automated People Mover System manufacturers, designers, owners and operators, and testers.

Project Need: Establishes the minimum requirements for the design, construction, operation, and maintenance of automated people mover (APM) systems. This standard presents the requirements to assure the safety and performance of APM systems.

ANSI/ASCE/T&DI 21 presents the minimum requirements for the design, construction, operation, and maintenance of APM systems. The standard covers the operating environment, safety, system dependability, automatic train control, and communications, and provides information on vehicles and propulsion and braking systems (PBS), along with information on electrical systems, stations, and guideways also providing information on security; emergency preparedness; system verification and demonstration; operation, maintenance and training; and operational monitoring.

**ASME (American Society of Mechanical Engineers)**

Contact: *Mayra Santiago, (212) 591-8521, ansibox@asme.org*

BSR/ASME B16.18-201x, Cast Copper Alloy Solder Joint Pressure Fittings (revision of ANSI/ASME B16.18-2012)

Stakeholders: Manufacturers.

Project Need: There is a need to add lead-free requirements for fittings made to B16.18 that are intended for potable water applications, to align with the requirements of the Reduction of Lead in Drinking Water Act (RLDWA).

This Standard for cast copper alloy solder joint pressure fittings designed for use with a copper water tube establishes requirements for pressure-temperature ratings, abbreviations for end connections, sizes and method of designating openings of fittings, marking, material, dimensions and tolerances, and tests.

BSR/ASME PTC 23-201x, Atmospheric Water Cooling Equipment (revision of ANSI/ASME PTC 23-2003 (R2014))

Stakeholders: Users, manufacturers, designers, consultants, and government agencies associated with industries that use water cooling equipment.

Project Need: Revisions to the current Standard are needed as a result of technological changes and advancements.

This Code provides rules for determining the performance of all referenced cooling equipment with regard to the thermal capability, deviation from design thermal capability, or deviation from design cold water temperature. This Code also provides procedures for assessing the compliance to specified plume abatement requirements characteristic of a wet-dry cooling tower.

**ASSE (ASC A10) (American Society of Safety Engineers)**

Contact: *Tim Fisher, (847) 768-3411, TFisher@ASSE.org*

BSR ASSE A10.28-201X, Safety Requirements for Work Platforms Suspended from Cranes or Derricks (revision of ANSI ASSE A10.28-2011)

Stakeholders: Construction and demolition occupational safety and health professionals.

Project Need: Based upon the consensus of the A10 Committee and the A10 Leadership.

This standard applies to platforms suspended from the load lines of cranes or derricks in order to (1) perform work at elevations that cannot normally be reached by other types of scaffolds or aerial work platforms or (2) transport personnel to elevations where other means of access are unsafe or impractical because of design or worksite conditions.

**ASTM (ASTM International)**

Contact: Corice Leonard, (610) 832-9744, [accreditation@astm.org](mailto:accreditation@astm.org)

BSR/ASTM WK58040-201x, New Test Method for Surface Burning Characteristics of Building Materials that Melt, Drip, Disintegrate and Delaminate when Exposed to Fire (new standard)

Stakeholders: Surface Burning industry.

Project Need: This fire-test response standard for the comparative surface-burning behavior of building materials is applicable to exposed surfaces such as walls and ceilings. The test is conducted with the specimen in the floor position with the surface to be evaluated exposed-face-up to the ignition source.

<https://www.astm.org/DATABASE.CART/WORKITEMS/WK58040.htm>

**ATIS (Alliance for Telecommunications Industry Solutions)**

Contact: Alexandra Blasgen, (202) 434-8840, [ablasgen@atis.org](mailto:ablasgen@atis.org)

BSR/ATIS 0100012-201x, Standard Outage Classification (revision of ANSI/ATIS 0100012-2013)

Stakeholders: Communications industry.

Project Need: There is a need to update this Standard.

This Standard provides a standard on the classification of outages for use by the telecommunications industry.

**EOS/ESD (ESD Association, Inc.)**

Contact: Christina Earl, (315) 339-6937, [cearl@esda.org](mailto:cearl@esda.org)

BSR/ESD S1.1-201x, ESD Association Standard for the Protection of Electrostatic Discharge Susceptible Items - Wrist Straps (revision of ANSI/ESD S1.1-2013)

Stakeholders: Electronics industry including telecom, consumer, medical, and industrial.

Project Need: This standard provides electrical and mechanical test methods and performance limits for product qualification, acceptance testing, and system testing of wrist straps.

This standard is intended for testing wrist straps and wrist strap systems used for the grounding of personnel engaged in working with ESD sensitive assemblies and devices. It does not address monitoring systems or garments.

**IEEE (ASC N42) (Institute of Electrical and Electronics Engineers)**

Contact: Susan Vogel, 732-562-3817, [s.vogel@ieee.org](mailto:s.vogel@ieee.org)

BSR N42.41-2007 (R201x), Standard Minimum Performance Criteria for Active Interrogation Systems Used for Homeland Security (reaffirmation of ANSI N42.41-2007)

Stakeholders: These instruments are designed primarily for use by the agencies of the Department of Homeland Security including DNDO, FEMA, CTOS, and their contractors.

Project Need: The requirements of this standard provide a set of minimally acceptable performance criteria for preliminary screening of active interrogation systems for further consideration.

This standard specifies the operational and performance requirements for active interrogation systems for use in homeland security applications.

BSR N42.46-2008 (R201x), Standard for Determination of the Imaging Performance of X-Ray and Gamma-Ray Systems for Cargo and Vehicle Security Screening (reaffirmation of ANSI N42.46-2008)

Stakeholders: These instruments are designed primarily for use by the agencies of the Department of Homeland Security including DNDO, FEMA, CTOS, and their contractors.

Project Need: This standard is needed to provide repeatable and verifiable methods to describe and measure the imaging performance characteristics of applicable systems.

This standard is intended to be used to determine the imaging performance of x-ray and gamma-ray systems utilized to inspect loaded or empty vehicles, including personal and commercial vehicles of any type; marine and air cargo containers of any size; railroad cars; and palletized or unpalletized cargo larger than 1m x 1m in cross-section.

**NCPDP (National Council for Prescription Drug Programs)**

Contact: *Kitty Krempin, (480) 296-4584, [kkrempin@ncpdp.org](mailto:kkrempin@ncpdp.org)*

BSR/NCPDP Required Drug Reporting Standard v10-201x, NCPDP Required Drug Reporting Standard v10 (new standard)

Stakeholders: Prescription Drug Monitoring Program (PDMP) facilitator, state PDMPs, pharmacy providers, pharmacy processors, intermediaries, prescribers, pharmacy system vendors.

Project Need: Develop a standard format for required drug reporting to the PDMP facilitator.

Report controlled substance and other required drug information to assist healthcare providers to deter prescription drug abuse to ensure access for patients with valid medical needs. This standard assists in allowing for a sustainable approach to eliminate data silos and promote interoperability by allowing actionable and timely information to prescribers and pharmacists using existing workflows to ease adoption, and support patient safety efforts to curb prescription drug abuse.

**NECA (National Electrical Contractors Association)**

Contact: *Agnieszka Golriz, (301) 215-4549, [Aga.golriz@necanet.org](mailto:Aga.golriz@necanet.org)*

\* BSR/NECA 102-201X, Standard for Installing Aluminum Rigid Metal Conduit (RMC) (new standard)

Stakeholders: Electrical contractors, specifiers, electrical workers, inspectors, building owners, maintenance engineers.

Project Need: National Electrical Installation Standards (developed by NECA in partnership with other industry organizations) are the first performance standards for electrical construction. They go beyond the basic safety requirements of the National Electrical Code to clearly define what is meant by installing products and systems in a "neat and workmanlike" manner.

This standard describes installation procedures for aluminum rigid metal conduit, including aluminum RMC with a supplementary PVC coating.

**NEMA (ASC C136) (National Electrical Manufacturers Association)**

Contact: *Karen Willis, (703) 841-3277, [Karen.Willis@nema.org](mailto:Karen.Willis@nema.org)*

BSR C136.41-201X, Standard for Roadway and Area Lighting Equipment - Dimming Control between an External Locking Type Photocontrol and Ballast or Driver (revision of ANSI C136.41-2013)

Stakeholders: Producers, users, specifiers, test labs.

Project Need: This project is needed to update the document for current industry practices.

This standard describes methods of light level control between an external locking type photocontrol (or similar device) and a dimmable ballast or driver for street and area lighting equipment. Mechanical, electrical, and marking requirements are established for dimming, locking-type photocontrols, and mating receptacles. All requirements of ANSI C136.10-2010 for photocontrols and receptacles shall apply except where specifically superseded by this standard.

**SCTE (Society of Cable Telecommunications Engineers)**

Contact: *Rebecca Yaletchko, (484) 252-2330, [ryaletchko@scte.org](mailto:ryaletchko@scte.org)*

BSR/SCTE 38-3-201x, Hybrid Fiber/Coax Outside Plant Status Monitoring SCTE-HMS-COMMON-MIB Management Information Base (MIB) Definition (revision of ANSI/SCTE 38-3-2012)

Stakeholders: Cable Telecommunication industry.

Project Need: Update to current technology.

This document defines common information about NEs. This includes administrative information such as name, ID, model number, serial numbers vendor, and location; health indicators such as status and service state; and functional information such as power level and frequency range.

BSR/SCTE 38-4-201x, Hybrid Fiber/Coax Outside Plant Status Monitoring SCTE-HMS-PS-MIB Management Information Base (MIB) Definition (revision of ANSI/SCTE 38-4-2012)

Stakeholders: Cable Telecommunication industry.

Project Need: Update to current technology.

This document defines information commonly available from HFC power supplies. Its structure permits multiple power supplies to be monitored by a single transponder.

**TIA (Telecommunications Industry Association)**

Contact: *Teesha Jenkins, (703) 907-7706, standards@tiaonline.org*

BSR/TIA 102.BAJC-B-201x, Tier 2 Location Services Specification (revision and redesignation of ANSI/TIA 102.BAJC-A-2015)

Stakeholders: APCO Project 25, Private Land Mobile Radio manufacturers and users.

Project Need: Update standard.

The Tier 2 Location Service provides a location request/response protocol that allows a Location Service Host to make a request for location information from an SU or MDP, providing parameters that control the transmission of location information. Immediate or periodic reports can be requested, and reports can be requested based on triggering events. The service can be used between SUs in the Direct Data or Repeated Data configurations, or between an SU and a Host in the Conventional FNE Data or Trunked FNE Data configurations. The location information is provided in an XML-based protocol and is compressed using the W3C EXI recommendation.

BSR/TIA 568.0-D-2-201x, Generic Telecommunications Cabling for Customer Premises, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology (addenda to ANSI/TIA 568.0-D-1-2017)

Stakeholders: All users and manufacturers of telecommunications cabling systems.

Project Need: Update standard.

Addendum to add single balanced twisted-pair use cases, topology, and architecture to ANSI/TIA 568.0-D providing guidelines in buildings where 1-pair cabling can be deployed in addition to IBS. The standard will include installation requirements and additional guidelines for transitioning from 4-pair to 1-pair cabling including sheath sharing. The standard will also provide single balanced twisted-pair cabling guidelines in accordance with ANSI/TIA 568.5 for emerging IOT and M2M applications that will require higher density, reduced size, and greater flexibility to serve these IOT devices.

BSR/TIA 862-B-2-201x, Structured Cabling Infrastructure Standard for Intelligent Building Systems, Addendum 2: Single Balanced Twisted-pair Use Cases and Topology (addenda to ANSI/TIA 862-B-2016)

Stakeholders: All users and manufacturers of telecommunications cabling systems

Project Need: Update standard.

Addendum to add single balanced twisted-pair use cases, topology, and architecture to ANSI/TIA 862-B providing guidelines in buildings where 1-pair cabling can be deployed in addition to the 4-pair cabling used for IBS applications. The standard will include installation requirements and additional guidelines for transitioning from 4-pair to 1-pair cabling including sheath sharing. The standard will also provide single balanced twisted-pair cabling guidelines in accordance with ANSI/TIA 568.5 for emerging IOT and M2M applications that will require higher density, reduced size, and greater flexibility to serve these IOT devices.

**UL (Underwriters Laboratories, Inc.)**

Contact: *Megan Van Heirseele, (847) 664-2881, Megan.M.VanHeirseele@ul.com*

- \* BSR/UL 62133-1-201x, Standard for Safety for Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells, and for Batteries Made from Them, for Use in Portable Applications - Part 1: Nickel Systems (national adoption with modifications of IEC 62133-1)

Stakeholders: Manufacturers of portable secondary nickel cells and batteries, Manufacturers of end products using portable secondary nickel cells and batteries, AHJs, Consumer organizations

Project Need: To obtain national recognition of an IEC-based standard covering portable secondary nickel cells and batteries.

This part of IEC 62133 specifies requirements and tests for the safe operation of portable sealed secondary nickel cells and batteries containing alkaline electrolyte, under intended use and reasonably foreseeable misuse.

- \* BSR/UL 62133-2-201x, Standard for Safety for Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes - Safety Requirements for Portable Sealed Secondary Cells, and for Batteries Made from Them, for Use in Portable Applications - Part 2: Lithium Systems (national adoption with modifications of IEC 62133-2)

Stakeholders: Manufacturers of portable secondary lithium cells and batteries, Manufacturers of end products using portable secondary lithium cells and batteries, AHJs, Consumer organizations

Project Need: To obtain national recognition of an IEC-based standard covering portable secondary lithium cells and batteries.

This part of IEC 62133 specifies requirements and tests for the safe operation of portable sealed secondary lithium cells and batteries containing non-acid electrolyte, under intended use and reasonably foreseeable misuse.

**UL (Underwriters Laboratories, Inc.)**

Contact: *Vickie Hinton, (919) 549-1851, Vickie.T.Hinton@ul.com*

BSR/UL 121303-201X, Standard for Safety for Guide for Use of Combustible Gas Detection Equipment (new standard)

Stakeholders: Consumers, Manufacturers and Regulatory Bodies

Project Need: To provide guidance on the use of combustible-gas detection equipment for determination of potentially explosive gas atmospheres in order to enhance the safety of personnel and property.

UL is seeking ANSI approval of ISA/TR-12.13.03 as a new UL 121303 standard.

**WMMA (ASC O1) (Wood Machinery Manufacturers of America)**

Contact: Jennifer Miller, (443) 640-1052, [jennifer@wmma.org](mailto:jennifer@wmma.org)

BSR O1.1-201x, Woodworking Machinery - Safety Requirements (revision of ANSI O1.1-2013)

Stakeholders: Woodworking machinery and accessory equipment manufacturers, end user, and stakeholders

Project Need: To revise the standard based on the consensus of the ASCO1.

This standard covers the safety requirements for the design, installation, care, and use of woodworking machinery and accessory equipment, used in industrial and commercial applications, having a total connected power of 5 hp (3.7 kw) or greater, or having 3-phase wiring.

# American National Standards Maintained Under Continuous Maintenance

The ANSI Essential Requirements: Due Process Requirements for American National Standards provides two options for the maintenance of American National Standards (ANS): periodic maintenance (see clause 4.7.1) and continuous maintenance (see clause 4.7.2). Continuous maintenance is defined as follows:

The standard shall be maintained by an accredited standards developer. A documented program for periodic publication of revisions shall be established by the standards developer. Processing of these revisions shall be in accordance with these procedures. The published standard shall include a clear statement of the intent to consider requests for change and information on the submittal of such requests. Procedures shall be established for timely, documented consensus action on each request for change and no portion of the standard shall be excluded from the revision process. In the event that no revisions are issued for a period of four years, action to reaffirm or withdraw the standard shall be taken in accordance with the procedures contained in the ANSI Essential Requirements.

The Executive Standards Council (ExSC) has determined that for standards maintained under the Continuous Maintenance option, separate PINS announcements are not required. The following ANSI Accredited Standards Developers have formally registered standards under the Continuous Maintenance option

- AAMI (Association for the Advancement of Medical Instrumentation)
- AARST (American Association of Radon Scientists and Technologists)
- AGA (American Gas Association)
- AGSC-AGRSS (Auto Glass Safety Council)
- ASC X9 (Accredited Standards Committee X9, Incorporated)
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)
- ASME (American Society of Mechanical Engineers)
- ASTM (ASTM International)
- GBI (Green Building Initiative)
- HL7 (Health Level Seven)
- IES (Illuminating Engineering Society)
- MHI (Material Handling Industry)
- NAHBRC (NAHB Research Center, Inc.)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NEMA (National Electrical Manufacturers Association)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network, Inc.)
- SAE (SAE International)
- TCNA (Tile Council of North America)
- TIA (Telecommunications Industry Association)
- UL (Underwriters Laboratories, Inc.)

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at [www.ansi.org/asd](http://www.ansi.org/asd), select "Standards Activities," click on "Public Review and Comment" and "American National Standards Maintained Under Continuous Maintenance." This information is also available directly at [www.ansi.org/publicreview](http://www.ansi.org/publicreview)

Alternatively, you may contact the Procedures & Standards Administration department (PSA) at [psa@ansi.org](mailto:psa@ansi.org) or via fax at 212-840-2298. If you request that information be provided via E-mail, please include your E-mail address; if you request that information be provided via fax, please include your fax number. Thank you.

# ANSI-Accredited Standards Developers Contact Information

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment and Final Actions. This section is a list of developers who have submitted standards for this issue of *Standards Action* – it is not intended to be a list of all ANSI-Accredited Standards Developers. Please send all address corrections to Standards Action Editor at [standact@ansi.org](mailto:standact@ansi.org).

<p><b>AAMI</b> Association for the Advancement of Medical Instrumentation (AAMI) 4301 N. Fairfax Dr., Ste 301 Suite 301 Arlington, VA 22203-1633 Phone: (703) 253-8263 Fax: (703) 276-0793 Web: <a href="http://www.aami.org">www.aami.org</a></p>	<p><b>ASCE</b> American Society of Civil Engineers 1801 Alexander Bell Dr Reston, VA 20191 Phone: 703-295-6176 Web: <a href="http://www.asce.org">www.asce.org</a></p>	<p><b>ECIA</b> Electronic Components Industry Association 2214 Rock Hill Road Suite 265 Herndon, VA 20170-4212 Phone: (571) 323-0294 Fax: (571) 323-0245 Web: <a href="http://www.ecianow.org">www.ecianow.org</a></p>	<p><b>NFPA</b> National Fire Protection Association One Batterymarch Park Quincy, MA 02169 Phone: (617) 770-3000 Web: <a href="http://www.nfpa.org">www.nfpa.org</a></p>
<p><b>ACMA</b> American Composites Manufacturers Association 3033 Wilson Boulevard, Suite 420 Arlington, VA 22201 Phone: (740) 928-3286 Fax: (703) 525-0743 Web: <a href="http://www.icpa-hq.org">www.icpa-hq.org</a></p>	<p><b>ASHRAE</b> American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta, GA 30329 Phone: (678) 539-1214 Fax: (678) 539-2214 Web: <a href="http://www.ashrae.org">www.ashrae.org</a></p>	<p><b>EOS/ESD</b> ESD Association 7900 Turin Rd., Bldg. 3 Rome, NY 13440 Phone: (315) 339-6937 Fax: (315) 339-6793 Web: <a href="http://www.esda.org">www.esda.org</a></p>	<p><b>NSF</b> NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-5643 Fax: (734) 827-7880 Web: <a href="http://www.nsf.org">www.nsf.org</a></p>
<p><b>ADA (Organization)</b> American Dental Association 211 East Chicago Avenue Chicago, IL 60611-2678 Phone: (312) 587-4129 Fax: (312) 440-2529 Web: <a href="http://www.ada.org">www.ada.org</a></p>	<p><b>ASME</b> American Society of Mechanical Engineers Two Park Avenue New York, NY 10016 Phone: (212) 591-8521 Fax: (212) 591-8501 Web: <a href="http://www.asme.org">www.asme.org</a></p>	<p><b>IEEE</b> Institute of Electrical and Electronics Engineers (IEEE) 445 Hoes Lane Piscataway, NJ 08854 Phone: (732) 562-3854 Fax: (732) 796-6966 Web: <a href="http://www.ieee.org">www.ieee.org</a></p>	<p><b>PEARL</b> Professional Electrical Apparatus Recyclers League 10200 W. 44th St, Ste. 304 Wheat Ridge, CO 80033 Phone: (720) 881-6043 Fax: (720) 881-6101 Web: <a href="http://www.pearl1.org">www.pearl1.org</a></p>
<p><b>AGMA</b> American Gear Manufacturers Association 1001 N Fairfax Street, 5th Floor Alexandria, VA 22314-1587 Phone: (703) 684-0211 Web: <a href="http://www.agma.org">www.agma.org</a></p>	<p><b>ASSE (Safety)</b> American Society of Safety Engineers 520 N. Northwest Highway Park Ridge, IL 60068 Phone: (847) 768-3411 Fax: (847) 296-9221 Web: <a href="http://www.asse.org">www.asse.org</a></p>	<p><b>IEEE (ASC N42)</b> Institute of Electrical and Electronics Engineers 445 Hoes Lane Piscataway, NJ 08855-1331 Phone: 732-562-3817 Web: <a href="http://standards.ieee.org">standards.ieee.org</a></p>	<p><b>SCTE</b> Society of Cable Telecommunications Engineers 140 Philips Road Exton, PA 19341-1318 Phone: (484) 252-2330 Web: <a href="http://www.scte.org">www.scte.org</a></p>
<p><b>APCO</b> Association of Public-Safety Communications Officials-International 351 N. Williamson Boulevard Daytona Beach, FL 32114-1112 Phone: (386) 322-2500 Fax: (386) 944-2794 Web: <a href="http://www.apcolntl.org">www.apcolntl.org</a></p>	<p><b>ASTM</b> ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Fax: (610) 834-3683 Web: <a href="http://www.astm.org">www.astm.org</a></p>	<p><b>NCPDP</b> National Council for Prescription Drug Programs 9240 East Raintree Drive Scottsdale, AZ 85260 Phone: (480) 296-4584 Fax: (480) 767-1042 Web: <a href="http://www.ncpdp.org">www.ncpdp.org</a></p>	<p><b>TAPPI</b> Technical Association of the Pulp and Paper Industry 15 Technology Parkway South Peachtree Corners, GA 30092 Phone: (770) 209-7276 Fax: (770) 446-6947 Web: <a href="http://www.tappi.org">www.tappi.org</a></p>
<p><b>ASA (ASC S3)</b> Acoustical Society of America 1305 Walt Whitman Road Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Fax: (631) 923-2875 Web: <a href="http://www.acousticalsociety.org">www.acousticalsociety.org</a></p>	<p><b>ATIS</b> Alliance for Telecommunications Industry Solutions 1200 G Street NW Suite 500 Washington, DC 20005 Phone: (202) 434-8840 Web: <a href="http://www.atis.org">www.atis.org</a></p>	<p><b>NECA</b> National Electrical Contractors Association 3 Bethesda Metro Center Suite 1100 Bethesda, MD 20814 Phone: (301) 215-4549 Web: <a href="http://www.neca-neis.org">www.neca-neis.org</a></p>	<p><b>TIA</b> Telecommunications Industry Association 1320 North Courthouse Road Suite 200 Arlington, VA 22201 Phone: (703) 907-7706 Fax: (703) 907-7727 Web: <a href="http://www.tiaonline.org">www.tiaonline.org</a></p>
<p><b>ASABE</b> American Society of Agricultural and Biological Engineers 2950 Niles Road St Joseph, MI 49085 Phone: (269) 932-7015 Fax: (269) 429-3852 Web: <a href="http://www.asabe.org">www.asabe.org</a></p>	<p><b>AWS</b> American Welding Society 8669 NW 36th Street Suite 130 Doral, FL 33166 Phone: (305) 443-9353 Fax: (305) 443-5951 Web: <a href="http://www.aws.org">www.aws.org</a></p>	<p><b>NEMA (ASC C136)</b> National Electrical Manufacturers Association 1300 North 17th Street Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3277 Fax: (703) 841-3378 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>UAMA (ASC B7)</b> Unified Abrasive Manufacturers' Association 30200 Detroit Road Cleveland, OH 44145-1967 Phone: (440) 899-0010 Fax: (440) 892-1404 Web: <a href="http://www.uama.org">www.uama.org</a></p>

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# ISO & IEC Draft International Standards

This section lists proposed standards that the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) are considering for approval. The proposals have received substantial support within the technical committees or subcommittees that developed them and are now being circulated to ISO and IEC members for comment and vote. Standards Action readers interested in reviewing and commenting on these documents should order copies from ANSI.

## Comments

Comments regarding ISO documents should be sent to ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)); comments on IEC documents must be submitted electronically in the approved ISO template and as a Word document as other formats will not be accepted.

Those regarding IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices ([tzertuche@ansi.org](mailto:tzertuche@ansi.org)). The final date for offering comments is listed after each draft.

## Ordering Instructions

**ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an ISO or IEC Draft to Customer Service at [sales@ansi.org](mailto:sales@ansi.org). When making your request, please provide the date of the Standards Action issue in which the draft document you are requesting appears.**

## ISO Standards

### ACOUSTICS (TC 43)

ISO/DIS 16283-2, Acoustics - Field measurement of sound insulation in buildings and of building elements - Part 2: Impact sound insulation - 9/20/2017, \$112.00

### AIR QUALITY (TC 146)

ISO/DIS 19926-1, Meteorology - Weather radar - Part 1: System performance and operation - 9/23/2017, \$155.00

### AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO/DIS 16091, Space systems - Integrated logistic support - 11/20/2017, \$82.00

### CORROSION OF METALS AND ALLOYS (TC 156)

ISO/DIS 14993, Corrosion of metals and alloys - Accelerated testing involving cyclic exposure to salt mist, dry and wet conditions - 9/24/2017, \$71.00

ISO/DIS 16151, Corrosion of metals and alloys - Accelerated cyclic test with exposure to acidified salt spray, dry and wet conditions - 9/24/2017, \$82.00

### CYCLES (TC 149)

ISO 6742-2/DAMd1, Cycles - Lighting and retro-reflective devices - Part 2: Retro-reflective devices - Amendment 1 - 11/24/2017, \$29.00

### FERTILIZERS AND SOIL CONDITIONERS (TC 134)

ISO/DIS 19822, Fertilizers and soil conditioners - Determination of humic and hydrophobic fulvic acids concentrations in fertilizer materials - 9/23/2017, \$93.00

ISO/DIS 20977, Determination of size distribution by dry and wet sieving - 11/16/2017, \$62.00

### GEOGRAPHIC INFORMATION/GEOMATICS (TC 211)

ISO/DIS 19146, Geographic information - Cross-domain vocabularies - 9/21/2017, \$125.00

### MATERIALS, EQUIPMENT AND OFFSHORE STRUCTURES FOR PETROLEUM AND NATURAL GAS INDUSTRIES (TC 67)

ISO/DIS 11961, Petroleum and natural gas industries - Steel drill pipe - 9/21/2017, \$165.00

ISO/DIS 19906, Petroleum and natural gas industries - Arctic offshore structures - 9/21/2017, \$281.00

### MECHANICAL VIBRATION AND SHOCK (TC 108)

ISO 10819/DAMd1, Mechanical vibration and shock - Hand-arm vibration - Measurement and evaluation of the vibration transmissibility of gloves at the palm of the hand - Amendment 1 - 9/20/2017, \$33.00

### MICROBEAM ANALYSIS (TC 202)

ISO/DIS 20720, Microbeam analysis - Methods of the specimen preparation for analysis of general powders using WDS and EDS - 9/24/2017, \$58.00

### NUCLEAR ENERGY (TC 85)

ISO/DIS 9161, Uranium dioxide powder - Determination of apparent density and tap density - 12/24/2031, \$40.00

ISO/DIS 11929-3, Determination of the characteristic limits (decision threshold, detection limit and limits of the coverage interval) for measurements of ionizing radiation - Fundamentals and application - Part 3: Applications to unfolding methods - 11/24/2017, \$112.00

### OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO/DIS 19979, Ophthalmic optics - Contact lenses - Hygienic management of multipatient use trial contact lenses - 9/25/2017, \$53.00

ISO/DIS 9211-8, Optics and photonics - Optical coatings - Part 8: Coatings used for laser optics - 11/24/2017, \$46.00

### OTHER

ISO/DIS 17226-1, Leather - Chemical determination of formaldehyde content - Part 1: Method using high performance liquid chromatography - 11/23/2017, \$53.00

ISO/DIS 17226-2, Leather - Chemical determination of formaldehyde content - Part 2: Method using colorimetric analysis - 11/23/2017, \$53.00

#### **PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)**

ISO 374-1/DAmD1, Protective gloves against dangerous chemicals and micro-organisms - Part 1: Terminology and performance requirements for chemical risks - Amendment 1 - 11/20/2017, \$29.00

#### **PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)**

ISO/DIS 3104, Petroleum products - Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity - 11/16/2017, \$77.00

ISO/DIS 3405, Petroleum and related products from natural or synthetic sources - Determination of distillation characteristics at atmospheric pressure - 11/16/2017, \$102.00

#### **PHOTOGRAPHY (TC 42)**

ISO/DIS 18944, Imaging materials - Reflection colour photographic prints - Test print construction and measurement - 9/21/2017, \$82.00

#### **ROAD VEHICLES (TC 22)**

ISO 17949/DAmD2, Impact test procedures for road vehicles - Seating and positioning procedures for anthropomorphic test devices - Procedure for the WorldSID 50th percentile male side-impact dummy in front outboard seating positions - Amendment 2 - 9/20/2017, \$40.00

#### **ROLLING BEARINGS (TC 4)**

ISO/DIS 19843, Rolling bearings - Ceramic bearings balls - Determination of the strength by notched ball test - 9/25/2017, \$98.00

#### **SHIPS AND MARINE TECHNOLOGY (TC 8)**

ISO/DIS 8384, Ships and marine technology - Dredgers - Vocabulary - 9/22/2017, \$71.00

ISO/DIS 8385, Ships and marine technology - Dredgers - Classification - 9/22/2017, \$46.00

#### **STERILIZATION OF HEALTH CARE PRODUCTS (TC 198)**

ISO 11137-1/DAmD2, Sterilization of health care products - Radiation - Part 1: Requirements for development, validation and routine control of a sterilization process for medical devices - Amendment 2 - 9/23/2017, \$33.00

ISO/DIS 11138-7, Sterilization of health care products - Biological indicators - Part 7: Guidance for the selection, use and interpretation of results - 9/24/2017, \$134.00

#### **TEXTILES (TC 38)**

ISO/DIS 20158, Textiles - Determination of water absorbency of textile fabrics - 9/22/2017, \$40.00

#### **TRADITIONAL CHINESE MEDICINE (TC 249)**

ISO/DIS 21317, Traditional Chinese medicine - Lonicera japonica flower - 9/23/2017, \$71.00

#### **VACUUM TECHNOLOGY (TC 112)**

ISO/DIS 21360-4, Vacuum technology - Standard methods for measuring vacuum-pump performance - Part 4: Turbomolecular vacuum pumps - 11/24/2017, \$58.00

#### **WELDING AND ALLIED PROCESSES (TC 44)**

ISO/DIS 17660-1, Welding - Welding of reinforcing steel - Part 1: Load-bearing welded joints - 9/20/2017, \$112.00

ISO/DIS 17660-2, Welding - Welding of reinforcing steel - Part 2: Non load-bearing welded joints - 9/20/2017, \$82.00

### **ISO/IEC JTC 1, Information Technology**

ISO/IEC 21000-8/DAmD4, Information technology - Multimedia framework (MPEG-21) - Part 8: Reference software - Amendment 4: Media value chain ontology extensions on time-segments and multi-track audio - 11/20/2017, \$33.00

ISO/IEC 23003-4/DAmD3, Information technology - MPEG audio technologies - Part 4: Dynamic Range Control - Amendment 3: Conformance - 11/20/2017, \$102.00

ISO/IEC 23001-11/DAmD3, Information technology - MPEG systems technologies - Part 11: Energy-efficient media consumption (green metadata) - Amendment 3 - 11/17/2017, \$71.00

ISO/IEC DIS 20027, Information Technology - Best practices for slap ten print fingerprint capture - 11/18/2017, \$71.00

ISO/IEC DIS 26553, Information technology - Software and systems engineering - Tools and methods for product line realization - 11/17/2017, \$134.00

ISO/IEC DIS 26554, Information technology - Software and systems engineering - Tools and methods for product line testing - 11/17/2017, \$134.00

ISO/IEC DIS 26556, Information technology - Software and systems engineering - Tools and methods for product line organizational management - 11/17/2017, \$134.00

ISO/IEC DIS 23005-2, Information technology - Media context and control - Part 2: Control information - 11/17/2017, \$230.00

ISO/IEC DIS 23005-3, Information technology - Media context and control - Part 3: Sensory information - 11/19/2017, \$165.00

ISO/IEC DIS 23005-4, Information technology - Media context and control - Part 4: Virtual world object characteristics - 11/19/2017, \$215.00

ISO/IEC DIS 23008-9, Information technology - High efficiency coding and media delivery in heterogeneous environments - Part 9: 3D Audio conformance testing - 11/19/2017, \$155.00

ISO/IEC DIS 23001-13, Information technology - MPEG systems technologies - Part 13: Media orchestration - 11/20/2017, \$146.00

## **IEC Standards**

1/2346/FDIS, IEC 60050-871 ED1: International electrotechnical vocabulary - Part 871: Active assisted living (AAL), /2017/10/1

1/2345/CDV, IEC 60050-171 ED1: International Electrotechnical Vocabulary - Part 171 - Digital technology - Fundamental concepts, /2017/11/2

2/1872/CDV, IEC 60034-14 ED4: Rotating electrical machines - Part 14: Mechanical vibration of certain machines with shaft heights 56 mm and higher - Measurement, evaluation and limits of vibration severity, /2017/11/2

- 9/2303/CDV, IEC 62888-5 ED1: Railway applications - Energy measurement on board trains - Part 5: Conformance test, /2017/11/2
- 9/2304/CDV, IEC 62888-6 ED1: Railway applications - Energy measurement on board trains - Part 6: Requirements for purposes other than billing, /2017/11/2
- 23E/1034/CDV, IEC 62752/AMD1 ED1: In-cable control and protection device for mode 2 charging of electric road vehicles (IC-CPD), /2017/11/2
- 37/436/FDIS, IEC 60099-8 ED2: Surge arresters - Part 8: Metal-oxide surge arresters with external series gap (EGLA) for overhead transmission and distribution lines of a.c. systems above 1 kV, /2017/10/1
- 42/351/CDV, IEC 61083-3 ED1: Instruments and software used for measurement in high-voltage and high-current tests - Part 3: Requirements for hardware for tests with alternating and direct voltages and currents, /2017/11/2
- 46F/383/CD, IEC 61169-61 ED1: Radio-frequency connectors - Part 61: Sectional specification for RF coaxial connectors with 9.5mm inner diameter of outer conductor with quick lock coupling □ series Q4.1-9.5, /2017/11/2
- 47E/581/CD, IEC 60747-18-2 ED1: Semiconductor devices - Part 18 -2: Semiconductor bio sensors - Evaluation process of lens-free CMOS photonic array sensor package module, /2017/11/2
- 47E/582/CD, IEC 60747-18-3 ED1: Semiconductor devices - Part 18 -3: Semiconductor bio sensors - Fluid flow characteristics of lens-free CMOS photonic array sensor package module with fluidic system, /2017/11/2
- 57/1917/DC, Proposed development of IEC TR 61850-10-3, Communication networks and systems for power utility automation - Part 10-3: Functional testing of IEC 61850 based systems, /2017/10/1
- 62D/1526/NP, PREPNW TS 62D-1: Non-invasive sphygmomanometers - Part 5: Requirements for the repeatability and reproducibility of NIBP simulators for testing, /2017/11/2
- 64/2220/CDV, IEC 60364-8-2 ED1: Low-voltage electrical installations - Part 8-2: Smart Low-Voltage Electrical Installations, /2017/11/2
- 65E/563/CD, IEC 63082-1 ED1: Intelligent Device Management - Part 1: Concepts and Terminology, /2017/10/2
- 77B/781A/CD, IEC 61000-4-3 ED4: Electromagnetic compatibility (EMC) - Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test, /2017/10/2
- 80/864/CD, IEC 63135 ED1: Maritime navigation and radio communication equipment and systems - Automatic Identification Systems (AIS) - SAR Airborne equipment - Operational and performance requirements, methods of test and required test results, /2017/10/2
- 82/1315/CDV, IEC 62446-1/AMD1 ED1: Photovoltaic (PV) systems - Requirements for testing, documentation and maintenance - Part 1: Grid connected systems - Documentation, commissioning tests and inspection, /2017/11/2
- 82/1340/DC, Proposed revision of IEC TS 62941 ED1, Terrestrial photovoltaic (PV) modules - Guideline for increased confidence in PV module design qualification and type approval, /2017/10/2
- 86/523/CD, IEC 62496-4-1 ED1: Optical circuit boards - Interface standards - Part 4-1: Terminated waveguide OCB assembly using single row 12 channel PMT connectors, /2017/10/2
- 86A/1812/CDV, IEC 60793-1-49 ED3: Optical fibres - Part 1-49: Measurement methods and test procedures - Differential mode delay, /2017/11/2
- 86B/4089/CDV, IEC 61754-7-3 ED1: Fibre optic interconnecting devices and passive components - Fibre optic connector interfaces - Part 7-3: Type MPO connector family - Two fibre rows 16 fibre wide, /2017/11/2
- 94/423/CDV, IEC 61810-10 ED1: Electromechanical elementary relays - Part 10: High capacity relays - Additional functional aspects and safety requirements, /2017/11/2
- 95/370/CDV, IEC/IEEE 60255-118-1 ED1: Measuring relays and protection equipment - Part 118-1: Synchrophasor for power systems - Measurements, /2017/11/2
- 100/2971A/NP, PNW 100-2971: LCD multi-screen display terminals - Part 1: Conceptual model, /2017/11/3
- 100/2984/CD, IEC 63006 ED1: Wireless Power Transfer (WPT) Glossary of Terms (TA 15), /2017/11/2
- 104/751/FDIS, IEC 60068-2-52 ED3: Environmental testing - Part 2 -52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution), /2017/10/1
- 110/890/CDV, IEC 62595-2-2 ED1: Display lighting unit - Part 2-2: Measuring methods of LED light bars used in LCD BLUs, /2017/11/2
- 110/891/CDV, IEC 62595-2-3 ED1: Display lighting unit - Part 2-3: Electro-optical measuring methods of LED frontlight unit, /2017/11/2
- 112/405/CD, IEC 60587 ED4: Electrical insulating materials used under severe ambient conditions - Test methods for evaluating resistance to tracking and erosion, /2017/11/2
- 115/169/CD, IEC TS 61973/AMD1 ED1: High voltage direct current (HVDC) substation audible noise, /2017/10/2
- 117/74/CDV, IEC 62862-3-2 ED1: Solar thermal electric plants - Part 3 -2: Systems and components - General requirements and test methods for large-size parabolic-trough collectors, /2017/11/2
- 119/182/CDV, IEC 62899-203 ED1: Printed Electronics - Part 203: Materials - Semiconductor ink, /2017/11/2
- CIS//564A/CD, Amendment 1 - CISPR 32: Electromagnetic compatibility of multimedia equipment - Emission requirements - Fragment 1, /2017/11/1



# Newly Published ISO & IEC Standards

Listed here are new and revised standards recently approved and promulgated by ISO - the International Organization for Standardization – and IEC – the International Electrotechnical Commission. Most are available at the ANSI Electronic Standards Store (ESS) at [www.ansi.org](http://www.ansi.org). All paper copies are available from Standards resellers (<http://webstore.ansi.org/faq.aspx#resellers>).

## ISO Standards

### ISO/IEC JTC 1 Technical Reports

[ISO/IEC TR 20748-2:2017](#), Information technology for learning, education and training - Learning analytics interoperability - Part 2: System requirements, \$103.00

### AGRICULTURAL FOOD PRODUCTS (TC 34)

[ISO 21294:2017](#), Oilseeds - Manual or automatic discontinuous sampling, \$68.00

### CLEANING EQUIPMENT FOR AIR AND OTHER GASES (TC 142)

[ISO 29464:2017](#), Cleaning of air and other gases - Terminology, \$162.00

### ERGONOMICS (TC 159)

[ISO 9241-125:2017](#), Ergonomics of human-system interaction - Part 125: Guidance on visual presentation of information, \$185.00

### INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)

[ISO 8000-2:2017](#), Data quality - Part 2: Vocabulary, \$45.00

### METALLIC AND OTHER INORGANIC COATINGS (TC 107)

[ISO 20523:2017](#), Carbon based films - Classification and designations, \$68.00

### OTHER

[ISO 14271:2017](#), Resistance welding - Vickers hardness testing (low-force and microhardness) of resistance spot, projection, and seam welds, \$68.00

### POWDER METALLURGY (TC 119)

[ISO 3927:2017](#), Metallic powders, excluding powders for hardmetals - Determination of compressibility in uniaxial compression, \$68.00

### ROLLING BEARINGS (TC 4)

[ISO 15242-4:2017](#), Rolling bearings - Measuring methods for vibration - Part 4: Radial cylindrical roller bearings with cylindrical bore and outside surface, \$68.00

### RUBBER AND RUBBER PRODUCTS (TC 45)

[ISO 2321:2017](#), Rubber threads - Methods of test, \$162.00

[ISO 2930:2017](#), Rubber, raw natural - Determination of plasticity retention index (PRI), \$68.00

[ISO 4675:2017](#), Rubber- or plastics-coated fabrics - Low-temperature bend test, \$45.00

### SOIL QUALITY (TC 190)

[ISO 11504:2017](#), Soil quality - Assessment of impact from soil contaminated with petroleum hydrocarbons, \$138.00

### SPORTS AND RECREATIONAL EQUIPMENT (TC 83)

[ISO 25649-1:2017](#), Floating leisure articles for use on and in the water - Part 1: Classification, materials, general requirements and test methods, \$162.00

[ISO 25649-2:2017](#), Floating leisure articles for use on and in the water - Part 2: Consumer information, \$138.00

[ISO 25649-3:2017](#), Floating leisure articles for use on and in the water - Part 3: Additional specific safety requirements and test methods for Class A devices, \$103.00

[ISO 25649-4:2017](#), Floating leisure articles for use on and in the water - Part 4: Additional specific safety requirements and test methods for Class B devices, \$138.00

[ISO 25649-5:2017](#), Floating leisure articles for use on and in the water - Part 5: Additional specific safety requirements and test methods for Class C devices, \$138.00

[ISO 25649-6:2017](#), Floating leisure articles for use on and in the water - Part 6: Additional specific safety requirements and test methods for Class D devices, \$103.00

[ISO 25649-7:2017](#), Floating leisure articles for use on and in the water - Part 7: Additional specific safety requirements and test methods for Class E devices, \$138.00

## ISO Technical Specifications

### NANOTECHNOLOGIES (TC 229)

[ISO/TS 20477:2017](#), Nanotechnologies - Standard terms and their definition for cellulose nanomaterial, \$45.00

## ISO/IEC JTC 1, Information Technology

[ISO/IEC 14496-22/Amd2:2017](#), Information technology - Coding of audio-visual objects - Part 22: Open Font Format - Amendment 2: Updated text layout features and implementations, \$19.00

[ISO/IEC 30113-11:2017](#), Information technology - Gesture-based interfaces across devices and methods - Part 11: Single-point gestures for common system actions, \$162.00

## IEC Standards

### AUTOMATIC CONTROLS FOR HOUSEHOLD USE (TC 72)

[IEC 60730-2-5 Amd.1 Ed. 4.0 en:2017](#), Amendment 1 - Automatic electrical controls - Part 2-5: Particular requirements for automatic electrical burner control systems, \$164.00

[IEC 60730-2-5 Ed. 4.1 en:2017](#), Automatic electrical controls - Part 2 -5: Particular requirements for automatic electrical burner control systems, \$645.00

#### **FIBRE OPTICS (TC 86)**

[IEC 62148-1 Ed. 2.0 en:2017](#), Fibre optic active components and devices - Package and interface standards - Part 1: General and guidance, \$47.00

#### **PERFORMANCE OF HOUSEHOLD ELECTRICAL APPLIANCES (TC 59)**

[IEC 60350-2 Ed. 2.0 en:2017](#), Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance, \$352.00

#### **PIEZOELECTRIC AND DIELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION (TC 49)**

[IEC 62884-2 Ed. 1.0 en:2017](#), Measurement techniques of piezoelectric, dielectric and electrostatic oscillators - Part 2: Phase jitter measurement method, \$164.00

#### **PRINTED ELECTRONICS (TC 119)**

[IEC 62899-301-2 Ed. 1.0 en:2017](#), Printed electronics - Part 301-2: Equipment - Contact printing - Rigid master - Measurement method of plate master pattern dimension, \$199.00

#### **SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES (TC 61)**

[IEC 60335-2-4 Ed. 6.2 en:2017](#), Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors, \$176.00

[IEC 60335-2-4 Amd.2 Ed. 6.0 en:2017](#), Amendment 2 - Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors, \$12.00

#### **TERMINOLOGY (TC 1)**

[IEC 60050-102 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International electrotechnical vocabulary - Part 102: Mathematics - General concepts and linear algebra, \$47.00

[IEC 60050-103 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International electrotechnical vocabulary - Part 103: Mathematics - Functions, \$23.00

[IEC 60050-114 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International Electrotechnical Vocabulary - Part 114: Electrochemistry, \$12.00

[IEC 60050-161 Amd.7 Ed. 1.0 en:2017](#), Amendment 7 - International electrotechnical vocabulary - Part 161: Electromagnetic compatibility, \$12.00

[IEC 60050-300 Amd.3 Ed. 1.0 b:2017](#), Amendment 3 - International electrotechnical vocabulary - Electrical and electronic measurements and measuring instruments - Part 314: Specific terms according to the type of instrument, \$12.00

[IEC 60050-521 Amd.1 Ed. 2.0 b:2017](#), Amendment 1 - International Electrotechnical Vocabulary - Part 521: Semiconductor devices and integrated circuits, \$12.00

[IEC 60050-531 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International electrotechnical vocabulary - Part 531: Electronic tubes, \$12.00

[IEC 60050-702 Amd.3 Ed. 1.0 b:2017](#), Amendment 3 - International electrotechnical vocabulary - Part 702: Oscillations, signals and related devices, \$23.00

[IEC 60050-704 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 704: Transmission, \$12.00

[IEC 60050-705 Amd.3 Ed. 1.0 b:2017](#), Amendment 3 - International electrotechnical vocabulary - Part 705: Radio wave propagation, \$12.00

[IEC 60050-713 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 713: Radiocommunications: transmitters, receivers, networks and operation, \$12.00

[IEC 60050-714 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 714: Switching and signalling in telecommunications, \$12.00

[IEC 60050-721 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 721: Telegraphy, facsimile and data communication, \$12.00

[IEC 60050-722 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International electrotechnical vocabulary - Part 722: Telephony, \$12.00

[IEC 60050-723 Amd.3 Ed. 1.0 b:2017](#), Amendment 3 - International electrotechnical vocabulary - Part 723: Broadcasting: Sound, television, data, \$12.00

[IEC 60050-726 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 726: Transmission lines and waveguides, \$12.00

[IEC 60050-731 Amd.2 Ed. 1.0 b:2017](#), Amendment 2 - International electrotechnical vocabulary - Part 731: Optical fibre communication, \$12.00

[IEC 60050-551-20 Amd.1 Ed. 1.0 b:2017](#), Amendment 1 - International electrotechnical vocabulary - Part 551-20: Power electronics - Harmonic analysis, \$12.00

## **IEC Technical Specifications**

### **ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES (TC 31)**

[IEC/TS 60079-46 Ed. 1.0 en:2017](#), Explosive atmospheres - Part 46: Equipment assemblies, \$82.00

# Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.

The following is a list of alphanumeric organization names that have been submitted to ANSI for registration. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

## PUBLIC REVIEW

ORSUS

Public Review: August 11 to November 9, 2017

NOTE: Challenged alphanumeric names are underlined. The Procedures for Registration provide for a challenge process, which follows in brief. For complete details, see Section 6.4 of the Procedures.

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge.

A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

# Proposed Foreign Government Regulations

## Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations may be interested in proposed foreign technical regulations notified by Member countries of the World Trade Organization (WTO). In accordance with the WTO Agreement on Technical Barriers to Trade (TBT Agreement), Members are required to notify proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn, the Secretariat issues and makes available these notifications. The purpose of the notification requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final.

The USA Inquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Inquiry Point distributes the notified proposed foreign technical regulations (notifications) and makes the associated full-texts available to U.S. stakeholders via its online service, Notify U.S. Interested U.S. parties can register with Notify U.S. to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them.

To register for Notify U.S., please visit <http://www.nist.gov/notifyus/>.

The USA WTO TBT Inquiry Point is the official channel for distributing U.S. comments to the network of WTO TBT Enquiry Points around the world. U.S. business contacts interested in commenting on the notifications are asked to review the comment guidance available on Notify U.S. at <https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> prior to submitting comments.

For further information about the USA TBT Inquiry Point, please visit: <https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point>

Contact the USA TBT Inquiry Point at: (301) 975-2918; Fax: (301) 926-1559; E-mail: [usatbtep@nist.gov](mailto:usatbtep@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).

# Information Concerning

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## American National Standards

### Call for Members

#### INCITS Executive Board – ANSI Accredited SDO and US TAG to ISO/IEC JTC 1, Information Technology

The InterNational Committee for Information Technology Standards (INCITS), an ANSI accredited SDO, is the forum of choice for information technology developers, producers and users for the creation and maintenance of formal de jure IT standards. INCITS' mission is to promote the effective use of Information and Communication Technology through standardization in a way that balances the interests of all stakeholders and increases the global competitiveness of the member organizations.

The INCITS Executive Board serves as the consensus body with oversight of its 40+ Technical Committees. Additionally, the INCITS Executive Board has the international leadership role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

Membership in the INCITS Executive Board is open to all directly and materially affected parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at [jgarner@itic.org](mailto:jgarner@itic.org) or visit <http://www.incits.org/participation/membership-info> for more information.

Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following categories:

- Service Providers
- Users
- Standards Development Organizations and Consortia
- Academic Institutions

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

SCTE, an ANSI-accredited SDO, is the primary organization for the creation and maintenance of standards for the cable telecommunications industry. SCTE's standards mission is to develop standards that meet the needs of cable system operators, content providers, network and customer premises equipment manufacturers, and all others who have an interest in the industry through a fair, balanced and transparent process.

SCTE is currently seeking to broaden the membership base of its ANS consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities.

Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at [www.scte.org](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

### Stabilized Maintenance Notice

#### Notice of INCITS Standards to Continue as American National Standards (ANS) under Stabilized Maintenance

This announcement is made in accordance with 4.7.3 Stabilized maintenance of American National Standards of the ANSI Essential Requirements ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)).

On May 29, 2017, the INCITS Executive Board completed their approval for the 10-year stabilized maintenance action for the standards listed. It has been determined in connection with this approval that the standards shall continue to be maintained under the stabilized maintenance option. Questions may be directed to [comments@standards.incits.org](mailto:comments@standards.incits.org)

INCITS 11-1990 [S2017], Specification for General Purpose Paper Cards for Information Interchange

## ANSI Accredited Standards Developers

### Application for Accreditation

#### North American Power Sweeping Association (NAPSA)

#### Comment Deadline: October 9, 2017

The North American Power Sweeping Association (NAPSA), a new ANSI member in 2017, has submitted an application for accreditation as an ANSI Accredited Standards Developer (ASD) and proposed operating procedures for documenting NAPSA-sponsored American National Standards. NAPSA's proposed scope of standards activity is as follows:

Proper and professional power sweeping services

To obtain a copy of NAPSA's application and proposed operating procedures or to offer comments, please contact: Ms. Nancy Terry, Executive Director, North American Power Sweeping Association, P.O. Box 1166, Lebanon, OH 45036; phone: 888.757.0130; e-mail: [info@powersweeping.org](mailto:info@powersweeping.org).

Please submit any comments to NAPSA by October 9, 2017, with a copy to the ExSC Recording Secretary in ANSI's New York Office (E-mail: [Jthompso@ANSI.org](mailto:Jthompso@ANSI.org)). As the proposed procedures are available electronically, the public review period is 30 days. You may view or download a copy of NAPSA's proposed operating procedures from ANSI Online during the public review period at the following URL: [www.ansi.org/accredPR](http://www.ansi.org/accredPR).

### Approval of Reaccreditation

#### International Institute of Ammonia Refrigeration (IIAR)

ANSI's Executive Standards Council has approved the reaccreditation of the International Institute of Ammonia Refrigeration (IIAR), an ANSI Member and Accredited Standards Developer, under its recently revised operating procedures for documenting consensus on IIAR-sponsored American National Standards, effective September 5, 2017. For additional information, please contact: Mr. Eric M. Smith P.E., Vice-President and Technical Director, International Institute of Ammonia Refrigeration, 100 N. Fairfax Street, Suite 503, Alexandria, VA 22314; phone: 703.312.4200; e-mail: [eric.smith@iiar.org](mailto:eric.smith@iiar.org).

# International Organization for Standardization (ISO)

Transfer of Secretariat

ISO/TC 106/SC 8 – Dental implants

**Comment Deadline: September 21, 2017**

The American Dental Association (ADA) has requested ANSI to delegate the responsibilities of the administration of the ISO/TC 106/SC 8 secretariat to the FDA Center for Device and Radiological Health (FDA CDRH). The secretariat was previously held by ADA and the secretariat transfer is supported by the U.S. TAG.

ISO/TC 106/SC 8 develops standards in the field of Dental Implants under the scope of ISO/TC 106:

Standardization in oral health care including:

- terms and definitions;
- performance, safety, and specification requirements of dental products; and
- clinically relevant laboratory test methods, all of which contribute to improved global health.

Organizations wishing to comment on the delegation of the responsibilities should contact ANSI's ISO Team

[isot@ansi.org](mailto:isot@ansi.org).

Transfer of U.S. TAG Administrator

U.S. TAG to ISO TC 204 – Intelligent Transport Systems

**Comment Deadline: September 25, 2017  
(extended from September 8)**

The U.S. Technical Advisory Group (TAG) to ISO TC 204, Intelligent Transport Systems, has voted to approve the transfer of TAG Administrator responsibilities from the Intelligent Transportation Society of America (ITSA) to SAE International. The TAG will operate under the Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities (Annex A of the ANSI International Procedures). Please submit any comments on this action by September 25, 2017 to: Mr. Jack Pokrzywa, Director, SAE Global Ground Vehicle Standards; 755 West Big Beaver Road, Suite 1600, Troy, MI 48084; phone: 248.273.2460; E-mail: [Jack.Pokrzywa@sae.org](mailto:Jack.Pokrzywa@sae.org) (please copy [jthompso@ansi.org](mailto:jthompso@ansi.org)). If no comments are received, this action will be formally approved, effective September 26, 2017.



**BSR/ASHRAE Addendum b  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

**Proposed Addendum b to  
Standard 62.1-2016, Ventilation for  
Acceptable Indoor Air Quality**

**Third Public Review (August 2017)  
(Draft shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research-technology/public-review-drafts](http://www.ashrae.org/standards-research-technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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**ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305**

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
Third Public Review Draft

**(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

*This proposed addendum responds to increasing requests for more simplified table for ventilation rate procedure of the standard. It contains a simplified ventilation rate table in Informative Appendix D for use in existing buildings where information for calculating minimum ventilation using Normative Appendix A for multiple spaces is often unavailable.*

### **Background and Rational for Informative Appendix D**

*Responding to increasing interest in sustainability in existing buildings, ASHRAE 62.1 is cited frequently as a criterion for evaluating ventilation systems in existing buildings. Examples include LEED-EBOM, ENERGY STAR, and Building EQ. Some building categories such as K-12 schools and office buildings are frequently renovated and often have multiple zone systems that provide HVAC to similar space types.*

*Calculation of  $E_v$  is often difficult if not impossible because the information required is not available.  $E_v$  is a function of the supply airflows at the zone level. Often in office buildings, the supply airflow for tenant fit up zones is not available because the drawings are not up-to-date or the mechanical fit-out drawings were not retained or delivered to the current building operations staff. Often changes in rooms occur with no change to the mechanical drawings. Walls are routinely relocated, offices become conference rooms, conference rooms become offices, and no changes are made to the air distribution systems. Similar conditions may occur in school buildings.*

*When the air handling system is VAV, then the minimum setting of the boxes needs to be known. At times, the existing drawings do not specify minimum settings. At other times, the settings are unknown because the current fit-out drawings or TAB reports are not available.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## **Addendum b to 62.1-2016**

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***Add a new Informative Appendix D as shown below (underlining omitted as all of this is new material). Re-letter existing appendices.***

**(This appendix is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

### **INFORMATIVE APPENDIX D**

**Simplified Ventilation Rate Calculation for Multiple-Zone Recirculating Systems serving only specified occupancy categories in existing buildings**

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
Third Public Review Draft

**D1. Use of this Appendix.** This appendix is intended to be used to assess ventilation rates in existing buildings for third party building evaluation programs (such as ASHRAE Building EQ, LEED EBOM, Energy Star, etc.). However, this informative appendix is not intended to be used as the basis of design or for regulatory applications.

**D2. Outdoor Air Intake.** For multiple-zone recirculating systems serving only occupancy categories listed in Table D-2, the target outdoor air intake flow ( $V_{Target}$ ) is determined in accordance with Equation D2. For all other systems,  $V_{Target}$  shall be set equal to  $V_{ot}$  in accordance with 6.2.5.4. If the minimum outdoor air intake flows measured at the system level meet or exceed  $V_{Target}$ , then the system meets the criteria of this informative appendix.

$$V_{Target} = \sum_{\text{all zones}} A_z \times R_s \quad D2$$

where

$A_z$  = zone floor area, the net occupiable floor area of the ventilation zone, ft<sup>2</sup> (m<sup>2</sup>)

$R_s$  = outdoor airflow rate required per unit area as determined from Table D-2

**D3. Zone Primary Airflow.** For each zone, the minimum system primary airflow is determined in accordance with Equation D3.

$$V_{pz} = A_z \times R_{pz} \quad D3$$

where

$R_{pz}$  = minimum primary supply airflow rate required per unit area as determined from Table D-2. The minimum primary airflow rate is the minimum zone airflow required for ventilation purposes.

**TABLE D-2 Minimum Ventilation and Supply Airflow Rates**

Occupancy Category	Occupancy Minimum Airflow			
	Outdoor Air Rate $R_s$		Minimum Primary Supply Air Rate $R_{pz}$	
	cfm/ft <sup>2</sup>	L/s·m <sup>2</sup>	cfm/ft <sup>2</sup>	L/s·m <sup>2</sup>
<b>Educational Facilities</b>				
Classrooms (ages 5-8)	0.65	0.33	1.12	0.56
Classrooms (age 9 plus)	0.82	0.41	1.41	0.71
Computer lab	0.65	0.33	1.12	0.56
Media center	0.65	0.33	1.12	0.56
Music/theater/dance	0.72	0.36	1.24	0.62
Multi-use assembly	1.42	0.71	2.45	1.22
<b>General</b>				
Conference/meeting	0.44	0.22	0.76	0.38
Corridors	0.11	0.06	0.19	0.10
<b>Office Buildings</b>				
Breakrooms	0.65	0.33	1.12	0.56
Main entry lobbies	0.19	0.10	0.33	0.16
Occupiable storage rooms for dry materials	0.12	0.06	0.21	0.10
Office space	0.15	0.08	0.26	0.13
Reception areas	0.37	0.19	0.64	0.32
Telephone/data entry	0.63	0.32	1.09	0.54

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
Third Public Review Draft

<b>Public Assembly Spaces</b>				
Libraries	0.30	0.15	0.52	0.26



**BSR/ASHRAE Addendum d  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum d to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (August 2016)  
(Draft shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research-technology/public-review-drafts](http://www.ashrae.org/standards-research-technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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**ASHRAE, 1791 Tullie Circle, NE, Atlanta GA 30329-2305**

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

**(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

*This proposed addendum deletes Informative Appendix D (RATIONALE FOR MINIMUM PHYSIOLOGICAL REQUIREMENTS FOR RESPIRATION AIR BASED ON CO<sub>2</sub> CONCENTRATION). Appendix D first appeared in 62-1989. Since that time there have been additions and modifications. Its purpose was to explain the relationship between oxygen and carbon dioxide in spaces. It is based on data from the 1950's. Newer information is available. The committee is aware of misuse and confusion caused by the information in its present form and prefers to delete this misused appendix now. The committee may add back relevant informative guidance that assists with implementation of the standard in the next version of the standard.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum d to 62.1-2016

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*Delete Informative Appendix D. For legibility, the text is not shown in strikethrough. All text and tables below will be deleted by this proposed addendum.*

**(This appendix is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

### INFORMATIVE APPENDIX D

#### RATIONALE FOR MINIMUM PHYSIOLOGICAL REQUIREMENTS FOR RESPIRATION AIR BASED ON CO<sub>2</sub> CONCENTRATION

Oxygen is necessary for metabolism of food to sustain life. Carbon and hydrogen in foods are oxidized to carbon dioxide (CO<sub>2</sub>) and water (H<sub>2</sub>O), which are eliminated by the body as waste products. Foods can be classified as carbohydrates, fats, and proteins, and the ratio of carbon to hydrogen in each is somewhat different. The respiratory quotient (RQ) is the volumetric ratio of CO<sub>2</sub> produced to oxygen consumed. It varies from 0.71 for a diet of 100% fat to 0.8 for a diet of 100% protein and 1.00 for a diet of 100% carbohydrates<sup>D-1</sup>. A value of RQ = 0.83 applies to a normal diet mix of fat, carbohydrate, and protein.

The rate at which oxygen is consumed and CO<sub>2</sub> is generated depends on physical activity. These relationships are shown in Figure D-2 (see Reference D-2). The breathing rate is shown also. A simple mass balance equation gives the out- door airflow rate needed to maintain the steady-state CO<sub>2</sub> concentration below a given limit.

$$V_o = N/(C_s - C_o) \quad (D-1)$$

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

where

$V_o$  = outdoor airflow rate per person

$V_e$  = breathing rate

$N$  = CO<sub>2</sub> generation rate per person

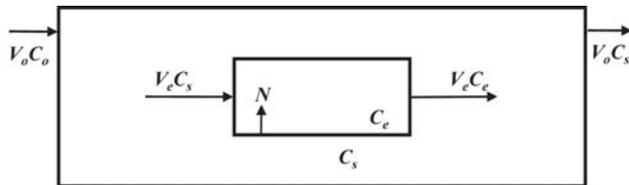
$C_e$  = CO<sub>2</sub> concentration in exhaled breath

$C_s$  = CO<sub>2</sub> concentration in the space

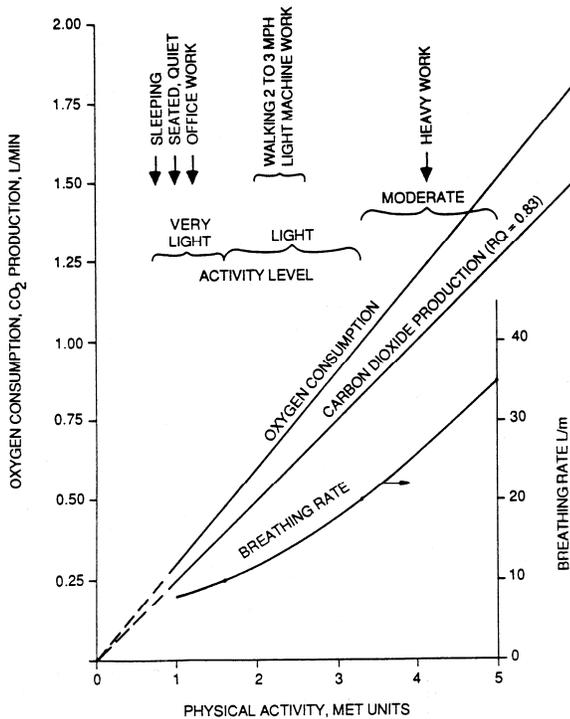
$C_o$  = CO<sub>2</sub> concentration in outdoor air

For example, at an activity level of 1.2 met units (1.0 met = 18.4 Btu/h·ft<sup>2</sup>), corresponding to sedentary persons, the CO<sub>2</sub> generation rate is 0.31 L/min. Laboratory and field studies have shown that with sedentary persons about 15 cfm (7.5 L/s) per person of outdoor air will dilute odors from human bioeffluents to levels that will satisfy a substantial majority (about 80%) of unadapted persons (visitors) to a space<sup>D-3,D-4,D-5,D-6,D-7</sup>. If the ventilation rate is to be held to 15 cfm (7.5 L/s) per person, the resulting steady-state CO<sub>2</sub> concentration relative to that in the outdoor air is

$$\begin{aligned} C_s - C_o &= N/V_o \\ &= 0.31/(7.5 \times 60 \text{ s/min}) \\ &= 0.000689 \text{ L of CO}_2 \text{ per L of air} \\ &\approx 700 \text{ ppm} \end{aligned}$$



**FIGURE D-1 Two-chamber model.**



**FIGURE D-2 Metabolic data.**

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Thus, maintaining a steady-state CO<sub>2</sub> concentration in a space no greater than about 700 ppm above outdoor air levels will indicate that a substantial majority of visitors entering a space will be satisfied with respect to human bioeffluents (body odor). A more detailed discussion of this relationship between CO<sub>2</sub> concentrations and the perception of bioeffluents, as well as the use of indoor CO<sub>2</sub> to estimate building ventilation rates, is contained in ASTM Standard D6245<sup>D-8</sup>.

CO<sub>2</sub> concentrations in acceptable outdoor air typically range from 300 to 500 ppm. High CO<sub>2</sub> concentrations in the outdoor air can be an indicator of combustion and/or other contaminant sources.

Figure D-3 shows the outdoor airflow rate required as a function of physical activity and steady-state room concentration. If the activity level is greater than 1.2 met, the required ventilation must be increased to maintain the same CO<sub>2</sub> level.

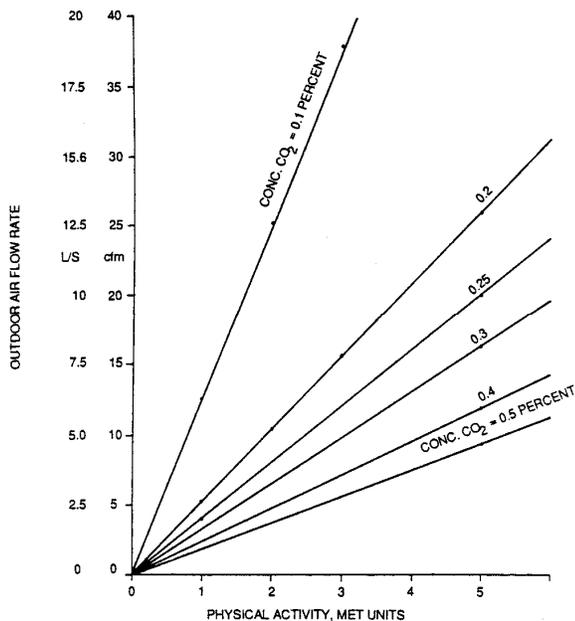
Also the decrease in oxygen content of the room air can be found from Equation D-1 when oxygen concentration is substituted for carbon dioxide concentration.

$$C_o - C_s = N/V_o \quad (D-2)$$

The term  $N$  now has a negative value with respect to its use in Equation D-1 because oxygen is consumed rather than generated.

$$C_s = C_o - N/V_o \quad (D-3)$$

The oxygen consumption rate is 0.0127 cfm (0.36 L/min) when the activity level is 1.2 met. For ventilation at a rate of 15 cfm (429 L/m) and an activity level of 1.2 met units, the room oxygen level will be reduced from an outdoor concentration of 20.95% to 20.85%, a percent change of 0.48%  $([20.95 - 20.85]/20.95)$ . Unlike oxygen, CO<sub>2</sub> is generated as a result of activity. At 1.2 met, the CO<sub>2</sub> indoors is raised from the outdoor background of 0.03% to 0.1%, a percent change of 230%. Thus, measuring the increase of CO<sub>2</sub> is clearly more significant than measuring the decrease of oxygen.



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### **FIGURE D-3 Ventilation requirements.**

#### **REFERENCES**

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**BSR/ASHRAE Addendum f  
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## FOREWORD

*The so-called “Multiple Spaces Equation” (Normative Appendix A equations A1.2.1 for single supply systems and A1.2.2-1 for systems with multiple recirculation paths) is very difficult to use, especially for variable volume systems for which there are an infinite number of scenarios with varying airflow, occupancy, supply air temperature, etc., all of which affect system ventilation efficiency. Accordingly, Standard 62.1 includes two options for calculating system ventilation efficiency, a prescriptive approach using Table 6.2.5.2 and a more fundamental (and complex) approach described in Normative Appendix A. The Table 6.2.5.2 approach is intended to apply to single supply systems in a fairly conservative manner. The procedure has several disadvantages:*

- It is seldom used since the Zpz values are so high. Few VAV systems fall under this table, in part because of limits to how high minimum airflow limits can be in Standard 90.1. So designers are forced to use the very complex Normative Appendix A approach.*
- It implies that it addresses VAV systems under all conditions but it does not directly address how low VAV box minimums can be.*

*To address these issues, this proposed addendum replaces the Table 6.2.5.2 approach with two formulas, one used to determine system ventilation efficiency ( $E_v$ ) and one used to determine minimum primary airflow setpoint intended to be used for VAV systems. These equations were developed from actual projects that had single duct VAV systems with ventilation rates calculated using the Normative Appendix A approach with guidance in accordance with the Standard 62.1 User’s Manual. The projects, summarized below, covered various occupancy types, including densely occupied spaces. The proposed equations for system ventilation efficiency and minimum primary airflow setpoint were developed to try to meet or exceed the Normative Appendix A rates.*

<i>Building</i>	<i>Appendix A OA Rate</i>	<i>Addendum F OA Rate</i>	<i>Ratio</i>
<i>Office/assembly</i>	<i>2283</i>	<i>2598</i>	<i>114%</i>
<i>Residential</i>	<i>2066</i>	<i>2662</i>	<i>129%</i>
<i>Classroom/office</i>	<i>24922</i>	<i>25703</i>	<i>103%</i>
<i>Classroom/office</i>	<i>5213</i>	<i>5320</i>	<i>102%</i>
<i>User's Manual Office</i>	<i>1938</i>	<i>1955</i>	<i>101%</i>

*There is always the possibility that with some occupancy types and ventilation system design that the proposed equations will result in under-ventilation compared to Normative Appendix A, but that also can be said for the existing Table 6.2.5.2 approach.*

***[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]***

## Addendum f to 62.1-2016

### **Modify the definition of ventilation zone in Section 3 as follows:**

**ventilation zone:** any indoor area that requires ventilation and comprises one or more spaces with the same occupancy category (see Table 6.2.2.1), occupant density, zone air distribution effectiveness (see Section 6.2.2.2), and design zone primary airflow (see Section ~~6.2.5.1~~ 6.2.5.3.2 and Normative Appendix A) per unit area.

### **Modify Section 6.2.5 as follows:**

**6.2.5 Multiple-Zone Recirculating Systems.** For ventilation systems wherein one or more air handlers supply a mixture of outdoor air and recirculated air to more than one ventilation zone, the outdoor air intake flow ( $V_{oi}$ ) shall be determined in accordance with Sections 6.2.5.1 through 6.2.5.4.

**6.2.5.1 Primary Outdoor Air Fraction.** Primary outdoor air fraction ( $Z_{pz}$ ) shall be determined for ventilation zones in accordance with Equation 6.2.5.1.

$$Z_{pz} = V_{oz} / V_{pz} \quad (6.2.5.1)$$

where  $V_{pz}$  is the zone primary airflow to the ventilation zone, including outdoor air and recirculated air.

- a. For VAV system design purposes,  $V_{pz}$  is the lowest zone primary airflow value expected at the design condition analyzed.
- b. In some cases, it is permitted to determine these parameters for only selected zones as outlined in Normative Appendix A.

**6.2.5.2 System Ventilation Efficiency.** The system ventilation efficiency ( $E_v$ ) shall be determined in accordance with Table 6.2.5.2 or Normative Appendix A.

**TABLE 6.2.5.2 System Ventilation Efficiency**

Max ( $Z_{pz}$ )	$E_v$
≤0.15	1.0
≤0.25	0.9
≤0.35	0.8
≤0.45	0.7
≤0.55	0.6
>0.55	Use Normative Appendix A

**NOTES:**

1. "Max ( $Z_{pz}$ )" refers to the largest value of  $Z_{pz}$ , calculated using Equation 6.2.5.1, among all the ventilation zones served by the system.
2. For values of Max ( $Z_{pz}$ ) between 0.15 and 0.55, the corresponding value of  $E_v$  may be determined by interpolating the values in the table.
3. The values of  $E_v$  in this table are based on a 0.15 average outdoor air fraction for the system (i.e., the ratio of the uncorrected outdoor air intake [ $V_{ou}$ ] to the total zone primary airflow for all the zones served by the air handler). For systems with higher values of the average outdoor air fraction, this table may result in unrealistically low values of  $E_v$  and the use of Normative Appendix A may yield more practical results.

**6.2.5.3~~1~~** **Uncorrected Outdoor Air Intake.** The uncorrected outdoor air intake ( $V_{ou}$ ) flow shall be determined in accordance with Equation 6.2.5.3~~1~~.

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$$V_{ou} = D \sum_{\text{all zones}} (R_p \times P_z) + \sum_{\text{all zones}} (R_a \times A_z) \quad (6.2.5.31)$$

**6.2.5.31.1 Occupant Diversity.** The occupant diversity ratio ( $D$ ) shall be determined in accordance with Equation 6.2.5.31.1 to account for variations in population within the ventilation zones served by the system.

$$D = P_s / \sum_{\text{all zones}} P_z \quad (6.2.5.31.1)$$

where the system population ( $P_s$ ) is the total population in the area served by the system.

**Exception:** Alternative methods to account for occupant diversity shall be permitted, provided the resulting  $V_{ou}$  value is no less than that determined using Equation 6.2.5.31.

**Informative Note:** The uncorrected outdoor air intake ( $V_{out}$ ) is adjusted for occupant diversity, but it is not corrected for system ventilation efficiency.

**6.2.5.31.2 Design System Population.** Design system population ( $P_s$ ) shall equal the largest (peak) number of people expected to occupy all ventilation zones served by the ventilation system during use.

**Informative Note:** Design system population is always equal to or less than the sum of design zone population for all zones in the area served by the system because all zones may or may not be simultaneously occupied at design population.

**6.2.5.2 System Ventilation Efficiency.** The system ventilation efficiency ( $E_v$ ) shall be determined in accordance with Section 6.2.5.3.1 for the Simplified Procedure or Section A1.3 for the Alternative Procedure in Normative Appendix A.

### **6.2.5.3 Simplified Procedure**

**6.2.5.3.1 System Ventilation Efficiency.** System Ventilation Efficiency ( $E_v$ ) shall be determined in accordance with Equation 6.2.5.3.1A or B.

$$E_v = 0.88 * D + 0.22 \quad \text{for } D < 0.60 \quad (6.2.5.3.1A)$$

$$E_v = 0.75 \quad \text{for } D \geq 0.60 \quad (6.2.5.3.1B)$$

**6.2.5.3.2 Zone Minimum Primary Airflow.** For each zone, the minimum primary airflow ( $V_{pz-min}$ ) shall be determined in accordance with Equation 6.2.5.3.2.

$$V_{pz-min} = V_{oz} * 1.5 \quad (6.2.5.3.2)$$

**6.2.5.4 Outdoor Air Intake.** The design outdoor air intake flow ( $V_{ot}$ ) shall be determined in accordance with Equation 6.2.5.4.

$$V_{ot} = V_{ou} / E_v \quad (6.2.5.4)$$

**Modify Normative Appendix A introduction as follows:**

## **NORMATIVE APPENDIX A** **MULTIPLE-ZONE SYSTEMS VENTILATION EFFICIENCY – ALTERNATIVE PROCEDURE**

This appendix presents an alternative procedure for calculating the system ventilation efficiency ( $E_v$ ) for multiple zone recirculating systems that must be used when Table 6.2.5.2 values are Section 6.2.5.3 is not used. In this

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alternative procedure,  $E_v$  is equal to the lowest calculated value of the zone ventilation efficiency ( $E_{vz}$ ) (see Equation A1.2.1-1 below).

**Informative Note:** Figure A-1 contains a ventilation system schematic depicting most of the quantities used in this appendix.

**Modify Section A1.1 as follows:**

**A1.1 Average Outdoor Air Fraction.** The average outdoor air fraction ( $X_s$ ) for the ventilation system shall be determined in accordance with Equation A1.1.

$$X_s = V_{ou}/V_{ps} \quad (\text{A1.1})$$

where the uncorrected outdoor air intake ( $V_{ou}$ ) is found in accordance with Section 6.2.5.31, and the system primary airflow ( $V_{ps}$ ) is found at the condition analyzed.

**Informative Note:** For VAV-system design purposes,  $V_{ps}$  is the highest expected system primary airflow at the design condition analyzed. System primary airflow at design is usually less than the sum of design zone primary airflow values because primary airflow seldom peaks simultaneously in all VAV zones.

**Modify Section A1.2.1 as follows:**

**A1.2.1 Single Supply Systems.** For single supply systems, wherein all of the air supplied to each ventilation zone is a mixture of outdoor air and system-level recirculated air, zone ventilation efficiency ( $E_{vz}$ ) shall be determined in accordance with Equation A1.2.1-1. Examples of single supply systems include constant-volume reheat, single-duct VAV, single-fan dual-duct, and multizone systems.

$$E_{vz} = 1 + X_s - Z_{pz} \quad (\text{A1.2.1-1})$$

where the average outdoor air fraction for the system ( $X_s$ ) is determined in accordance with Equation A1.1, and the primary outdoor air fraction for the zone ( $Z_{pz}$ ) is determined in accordance with ~~Section 6.2.5.1~~ Equation A1.2.1-2.

$$Z_{pz} = V_{oz}/V_{pz} \quad (\text{A1.2.1-2})$$

**Modify Section A3 as shown below. The remainder of Section A3 is unchanged.**

### A3. SYMBOLS

[...]

$E_v$  **system ventilation efficiency:** the efficiency with which the system distributes air from the outdoor air intake to the breathing zone in the ventilation-critical zone, which requires the largest fraction of outdoor air in the primary airstream.  ~~$E_v$  shall be determined in accordance with Section 6.2.5.2 or Section A1.~~

[...]

$V_{ou}$  **uncorrected outdoor air intake:** see Section 6.2.5.31.

[...]

$V_{pz}$  **zone primary airflow:** ~~see Section 6.2.5.1~~ the zone primary airflow to the ventilation zone, including outdoor air and recirculated air.

[...]



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## FOREWORD

*This proposed addendum would establish firm requirements for compartmentalization airtightness for new attached residential dwelling units. Previously there has been language that suggested this metric without requiring it.*

*This proposed change also refers to a new Section A5, in Normative Appendix A. That proposed new section is found in proposed Addendum h, and would provide a prescriptive path for air sealing as an alternative to the requirements that would be implemented through this proposal, for attached dwelling units in which 15-80% of the envelope wall area is being altered. Please see Addendum h to view the referenced Section A5.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum g to 62.2-2016

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*Add a new definition to Section 3. The remainder of Section 3 is unchanged.*

### 3. Definitions

*envelope area, dwelling unit.* The sum of the areas of the ceilings, floors, and walls that separate the conditioned space of a dwelling unit from the exterior and from adjacent interior spaces.

*Revise Section 6.1 as shown below. Note that Section A5 has been proposed as a new section in Normative Appendix A and is currently posted for public review as Addendum h to Standard 62.2-2016.*

**6.1 Adjacent Spaces and Transfer Air.** Measures shall be taken to minimize air movement across envelope components to dwelling units from adjacent spaces such as garages, unconditioned crawlspaces, unconditioned attics, and other dwelling units. Pressure boundary wall, ceiling, and floor penetrations shall be sealed, as shall any vertical chases adjacent to dwelling units. Doors between dwelling units and common hallways shall be gasketed or made substantially airtight.

Supply and balanced ventilation systems shall be designed and constructed to provide ventilation air directly from the outdoors.

**6.1.1 Compliance for Attached Dwelling Units.** Attached dwelling units, except existing units as described in Section A5 of Normative Appendix A, shall ~~One method of demonstrating compliance with Section 6.1 shall be to by verifying a leakage rate below a maximum of less than or equal to 0.3 cfm per ft<sup>2</sup> (150 L/s per 100 m<sup>2</sup>) of the dwelling-unit envelope area (i.e., the sum of the area of the walls between dwelling units, exterior walls, ceiling, and floor) at a test pressure of 50 Pa by a blower door test conducted with either ANSI/ASTM E779<sup>2</sup> or ANSI/ASTM E1827<sup>6</sup>.~~ by means of a blower door test at a test pressure of 50 Pa. Testing shall be conducted in

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accordance with ANSI/RESNET/ICC 380. For horizontally attached single family dwelling units that are being evaluated for the infiltration credit in Section 4.1.2, the procedure specified in Section 4.1.2 shall be an alternative to the procedure of this section. The test shall be conducted with the dwelling unit as if it were exposed to outdoor air on all sides, top, and bottom by opening doors and windows of adjacent dwelling units.



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## FOREWORD

*This proposed addendum would provide an alternative compliance pathway for compartmentalization to the one being proposed in Addendum g. This alternative pathway would be available only to existing multifamily dwelling units undergoing retrofits that fall short of a gut rehab. The pathway in this proposed addendum recognizes that it is not possible to access all leaks in existing units and provides a prescriptive pathway with the intent of maximizing practical compartmentalization.*

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## Addendum h to 62.2-2016

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**Add the following new definitions to Section 3. The remainder of Section 3 is unchanged.**

### 3. DEFINITIONS

**air-impermeable material.** A material having an air permeance equal to or less than 0.02 L/s-m<sup>2</sup> at 75 Pa pressure differential as tested in accordance with ASTM E2178<sup>XX</sup> or ASTM E283<sup>YY</sup>.

**dwelling unit air barrier** a durable *air-impermeable material* or combination of such materials that is installed at the *dwelling unit envelope* and continuously *sealed* to resist the passage of air through the dwelling unit envelope.

**sealed** all edges, joints, openings, and penetrations of the *dwelling unit air barrier* materials are treated in a permanent manner that will resist the passage of air.

**Add a new section in Normative Appendix A Existing Buildings as follows.**

### **A5. DWELLING UNIT AIR SEALING**

Dwelling units that are undergoing alterations where between 15 and 80 percent of the dwelling unit envelope wall area is altered shall comply with Section 6.1.1 or with Subsections A5.1 through A5.4. Dwelling units where at least 80% of the dwelling unit envelope wall area is altered shall comply with Section 6.1.1.

**A5.1** The spaces around readily accessible penetrations through the dwelling unit air barrier shall be sealed, including, but not limited to, the following:

- a. Vent and pipe penetrations, including those from water piping, drain waste and vent piping, HVAC piping, and sprinkler heads.

BSR/ASHRAE Addendum h to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
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- b. Electrical penetrations, including those for receptacles, lighting, communications wiring, and smoke alarms.
- c. HVAC penetrations, including those for fans and for exhaust, supply, transfer, and return air ducts.

A5.2 Readily accessible leaks and gaps in the dwelling unit air barrier shall be sealed, including, but not limited to, the intersection(s) of baseboard trim and floor, the intersection(s) of walls and ceilings, around window trim and dwelling unit doors, and the termination points of internal chases in attics and crawl spaces.

A5.3 Where previously inaccessible locations are made readily accessible during renovation activities, those areas shall be air sealed as prescribed in Subsections A5.1 and A5.2.

A5.4 Sealants and materials used for air sealing shall be installed in accordance with manufacturer installation instructions, especially with respect to considerations for temperature, moisture, and gap width.

***Add the following new references to Section 9. The remainder of Section 3 is unchanged.***

## **9. REFERENCES**

XX. ANSI/ASTM E2178-13, *Standard Test Method for Air Permeance of Building Materials*. ASTM International, West Conshohocken, PA.

YY. ANSI/ASTM E283-04(2012), *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*. ASTM International, West Conshohocken, PA.



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to ANSI/ASHRAE Standard 62.2-2016**

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**Proposed Addendum i to  
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## FOREWORD

*This proposed addendum would make explicit that placing a new fan in a kitchen or bathroom in an existing dwelling unit can address the airflow deficit that would otherwise have existed through Section A3. This has been assumed to be true, but has not previously been made explicit. This proposed change would make this condition more transparent to users.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum i to 62.2-2016

---

**Revise Section A3.1 as shown below.**

**A3.1 Initial Room Airflow Deficit.** The airflow deficit for each bathroom shall be 50 cfm (24 L/s), less the airflow rating from Section A4.2 of the exhaust equipment. The airflow deficit for each kitchen shall be 100 cfm (47 L/s), less the airflow rating from Section A4.2 of the exhaust equipment. If there is no exhaust device or if the existing device can neither be measured nor rated, the exhaust device airflow shall be assumed to be zero. The airflow deficit shall be zero for a bathroom or kitchen if a new exhaust ventilation device meeting the requirements of Section 5.2 or 5.3 is installed in the bathroom or kitchen.



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## FOREWORD

*This proposed addendum would explicitly allow existing buildings to use a branch-circuit overcurrent device as an override even if it is not dedicated to only the ventilation fan in recognition that running a new circuit for the fan in an existing home is not always feasible.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum j to 62.2-2016

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*Add a new Section A5 to Normative Appendix A Existing Buildings. The remainder of Appendix A is unchanged.*

### **A5. CONTROL AND OPERATION OF DWELLING-UNIT VENTILATION**

Where a branch-circuit overcurrent device is used to comply with Section 4.4, the device is not required to be dedicated.



**BSR/ASHRAE Addendum m  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

**Proposed Addendum m to  
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## FOREWORD

*Currently, the standard defines floor area to include only finished spaces in the home, thereby excluding below-grade spaces such as unfinished basements from the calculation of ventilation rate. This proposed addendum would include such below-grade unfinished spaces in the calculation of floor area if they are within the pressure boundary of the home.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

### Addendum m to 62.2-2016

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***Revise the definition of floor area in Section 3 Definitions as shown below.***

***floor area:*** all above- and below-grade finished areas as defined in ANSI Standard Z765<sup>1</sup>, except that unfinished below-grade, occupiable areas inside the pressure boundary shall be included as floor area.



**BSR/ASHRAE Addendum n  
to ANSI/ASHRAE Standard 62.2-2016**

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## FOREWORD

*The purpose of this proposed addendum is to enable filters tested under ISO Standard 16980-2016 to be used to meet the requirements of Section 4.1.4 (Ventilation-Rate Reduction for Particle Filtration) in addition to filters rated under ASHRAE Standard 52.2 and AHRI Standard 680.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum n to 62.2-2016

**Revise Section 4.1.4.2.1 as shown below. Note that Addendum k to 62.2-2016 added Section 4.1.4 to Standard 62.2-2016.**

**4.1.4.2.1 Filtration Factor.** The filtration factor of an air filter ( $f_f$ ) shall be determined using one of the following methods:

- a. Filters tested to ASHRAE 52.2<sup>12</sup>: Identify the filtration factor from the row in Table 4.3 associated with the MERV designation.
- b. Filters tested to AHRI 680<sup>13</sup>: Identify the filtration factor from the row in Table 4.4 for which the measured particle size efficiencies are no less than the values listed in the row.
- c. Filters having a PM2.5 efficiency measured in accordance with ePM2.5 of ISO Standard 16890<sup>XX</sup>:  
Identify the filtration factor from the row in Table 4.5 for which the PM2.5 efficiency is no less than the value listed in the row.
- de. Filters tested with an alternative method providing PM2.5 efficiency as approved by the authority having jurisdiction: Identify the filtration factor from the row in Table 4.5 for which the PM2.5 efficiency is no less than the value listed in the row.

**Add the following reference to Section 9. The remainder of Section 9 is unchanged.**

## 9. REFERENCES

XX. ISO 16890-2016, Air filters for general ventilation. International Organization for Standardization, Geneva, Switzerland.



**BSR/ASHRAE Addendum f  
to ANSI/ASHRAE Standard 188-2015**

**Public Review Draft**

**Proposed Addendum f to  
Standard 188-2015, Legionellosis:  
Risk Management for Building Water  
Systems**

**First Public Review (September 2017)  
(Draft shows Proposed Changes to Current Standard)**

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## FOREWORD

*This proposed addendum makes changes to Section 4.3 Health Care Facility Requirements to clarify the requirements for buildings containing health care facilities.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

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**Revise Section 4.3.1 and 4.3.2 as shown below.**

### 4.3 Health Care Facility Requirements

**4.3.1** Buildings containing hHealth care facilities that do not meet ~~all of the~~ qualifications ~~in~~ Sections 4.3.2a and 4.3.2b shall comply with the requirements in Sections 4.2, “Building Owner Requirements”, ~~6, and 7~~.

**4.3.2** Buildings containing hHealth care facilities that meet the qualifications in Sections 4.3.2a and 4.3.2b ~~all of the following qualifications~~ shall comply with either the requirements in Sections 4.2, “Building Owner’s Requirements” ~~6, and 7~~ or the requirements in Normative Annex A, “Health Care Facilities”:

- a. The health care facility is accredited by a regional, national, or international accrediting agency or by the *authority having jurisdiction (AHJ)* over the health care facility Infection Prevention and Control (IC) activities.
- b. The health care facility IC program has an infection preventionist that is certified in infection prevention control (CIC) by the Certification Board of Infection Control and Epidemiology (CBIC) or other regional, national, or international certifying body, or the health care facility has an epidemiologist with a minimum of a master’s degree or equivalent.

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[Note – the changes are illustrated below using ~~strikeout~~ for proposed removal of existing text and grey highlights to indicate the proposed revised text. ONLY the highlighted text and strikeout text is within the scope of this ballot. Rationale Statements are in RED and only used to add clarity; these statements will NOT be in the finished publication]

## NSF International Standard/ American National Standard –

# Food Equipment Materials

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•

## 6 Coatings

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•

### 6.2 Organic coatings

#### 6.2.1 Food zones

6.2.1.1 Organic coatings may be used on food zone surfaces.

6.2.1.1.1 Organic coatings ~~may~~ shall not be used on food zone surfaces that are designed in purpose to be subject to cutting and chopping actions except as permitted in 6.2.1.8.

6.2.1.2 Coated surfaces used in direct food contact shall have substrate materials that conform to the requirements of 4.

6.2.1.3 Organic coatings used on food zone direct food contact surfaces shall meet the abrasion resistance requirements in 9.1.

6.2.1.4 Organic coatings used on food zone direct food contact surfaces shall meet the impact resistance requirements in 10.1.

6.2.1.4.1 The impact resistance requirements in 10.2 shall apply to organic coatings used on food zone direct food contact surfaces that are:

- internal to a unit, machine, or component;
- not subject to impact or wear by internal parts or mechanisms or by operators; and
- not designed to be removed during routine cleaning or maintenance.

6.2.1.5 Organic coatings used on food zone direct food contact surfaces shall meet the heat resistance requirements in 11.

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**6.2.1.6** Organic coatings used on food zone direct food contact surfaces shall meet the adhesion requirements in 12.1.

**6.2.1.7** Fluoropolymer coatings and other non-stick coatings used on heated food zones shall be exempt from impact resistance, abrasion resistance, adhesion ability, and heat resistance performance tests.

**6.2.1.8** Fluoropolymer coatings and other non-stick coatings may be used on blades of powered slicing equipment. All food zone direct food contact coating requirements shall apply.

**6.2.1.89** Organic coatings used on food zone non-direct food contact surfaces shall meet the abrasion resistance requirements in 9.2.

**6.2.1.910** Organic coatings used on food zone non-direct food contact surfaces shall meet the impact resistance requirements in 10.1.

**6.2.1.1011** Organic coatings used on heated food zone non-direct food contact surfaces shall meet the heat resistance requirements in 11.

***Rationale:** Non-stick coatings reduce the amount of friction generated in the cutting action thus providing better abrasion resistance than other organic coatings. Since the use of the coating on blades is restricted to powered-slicing equipment any potential substrate exposure would be routinely self-polished during normal use. All organic coatings in a food zone are required to meet the requirements section 4 in addition to 6.2, therefore, any minor erosion of the coating would not introduce any health risks. Non-stick coatings used in these applications improve the cleanability and sanitation of the blade.*

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### ANSI/PEARL Standard Comments

Log #	Subsection #	Commenter	Comment	Response
<b>Section 1000</b>				
1		Barry Rodgers <i>(negative vote)</i>	This section contains items related to warranty that are not appropriate for an ANSI standard. These types of statements are not in the ANSI/NETA MTS-2015. Remove all terms and text related to a warranty. This scope of this proposed standard (ELECTRICAL EQUIPMENT RECONDITIONING STANDARD for Electrical Apparatus and Equipment used in Commercial and Industrial Applications), as noted in Section 1010, does not cover warranties.	Substantive, accept: section renamed to "Standard Terms", all warranties and membership references have been removed.
		Tom Bishop <i>(negative vote)</i>	The statement "PEARL Certified members are qualified to place the nationally recognized PEARL Blue Reconditioning Quality Seal on the product" is restrictive in that it applies exclusively to PEARL members and appears to be a commercial item. That violates the ANSI Essential Requirements. Per ANSI Essential Requirements 3.2: "The appearance that a standard endorses any particular products, services or companies must be avoided." The text referring to the PEARL Blue Reconditioning Quality Seals in Section 1000, 2420, 2440 and 2445 needs to be removed from the ANSI part of the standards.	Comment accepted, draft revised.



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Log #	Subsection #	Commenter	Comment	Response
<b>Section 1020</b>				
1		Barry Rodgers	<p>The additional section does not address Hazard labeling. Informational and rating labels are 2 distinct things and should not be combined. As such, add the following text:</p> <p>Rating, instructional, hazard labels on the equipment shall not be altered from the original manufacturer markings. This information is specific to its intended application and safe operation. The original manufacturer shall be consulted for all equipment that does not have legible, or are missing, original rating, instructional, hazard labels or shall not be reconditioned.</p> <p>The reconditioner is responsible for all third party marks per the specific guidance provided by the third party.</p>	<p>Substantive, accept in concept: will use first two sentences, reword the third sentence to read “should be consulted”</p> <p>Third party marks are outside the scope of this standard.</p>
		Tom Bishop	<p>Section 1020 statement does not include text proposed by balloter. My understanding of standards balloting is that “Accept” means accept all; which is not the same as accept in principle or accept in part (or both). It should be made clear that this statement was not completely accepted.</p>	<p>Accepted in principle, with some recommended changes adopted. See revised draft.</p>

Log #	Subsection #	Commenter	Comment	Response
<b>Section 1060</b>				
1		Barry Rodgers	<p>All dates should be removed from the standards cited in section 1060. NFPA 70 use should correlate to the version adopted in local region. All other cited standards should be the most current version to avoid the use of unsafe practices.</p>	<p>Substantive, accept in part: all years will be removed and a statement added regarding using the most current version or to use an earlier version if explicitly stated.</p>



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Log #	Subsection #	Commenter	Comment	Response
<b>Section 1080</b>				
		Peter Brosz	Check the punctuation of the third paragraph. A period after 'activity' and a comma after "however" is my suggestion.	Non-substantive, accept

Log #	Subsection #	Commenter	Comment	Response
<b>Section 1210</b>				
		Tom Bishop	A broken seal in itself lacks further indication as to whether it was removed by a qualified person or by others. This topic needs to be addressed with more specific details. Further, the term "in many cases" is vague.	Already addressed in this balloting round



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Log #	Subsection #	Commenter	Comment	Response
<b>Section 5010</b>				
1	Section I	Barry Rodgers	<p>Section 5010 does not match the scope of the document being reviewed, ELECTRICAL EQUIPMENT RECONDITIONING STANDARD (EERS) for Electrical Apparatus and Equipment used in Commercial and Industrial Applications, and Section must be removed to meet ANSI requirements for standards development. The scope of the document under review is described as follows in the ANSI Standards Development Procedure: "PEARL Reconditioning Standards are intended to establish a minimum work scope for the reconditioning of electrical products and systems, to extend the service life and reliability of the product and to confirm that they are suitable for their intended use." The scope of this particular section, 5010, does not state that Section 5010 relates to reconditioning. Further, the Scope in Section 5010 notes that "The purpose of this Standard is to provide a structure for verifying the design and functionality of the protective functions of the overcurrent Trip Device and confirm its interaction with other components of the system." Other standards may exist or be in creation mode that may conflict with this text.</p> <p>As such, Section 5010 must be removed from the reconditioning standard.</p>	Substantive, accept: section 5010 removed from the standard
		Tom Bishop	<p>I agree with the balloter that the scope of 5010 is outside the scope of the EERS and 5010 should be deleted; or expand the scope of the EERS to include the activities in 5010.</p>	Substantive, accept: section 5010 removed from the standard



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BSR B7.1-201x, Safety Requirements for the Use, Care and Protection of Abrasive Wheels

1. Remove the portable electric grinder portion of the TIR Tables (See attached Sections 3.8.1.3 and 9.6)

<b>Tool</b>	<b>T.I.R.</b>
Grinders below 25,000 RPM	0.007" (0.18 mm)
Grinders 25,000 to 40,000 RPM	0.005" (0.12 mm)
Grinders over 40,000	0.003" (0.08 mm)

For portable electric grinders, the following may apply:

<b>Portable Electric Tools</b>	<b>Maximum Collet Capacity</b>	<b>Maximum T.I.R</b>
Grinders below 25,000 rpm	<0.197" (5 mm)	0.018" (0.45 mm)
Grinders 25,000 rpm and above	<0.197" (5 mm)	0.012" (0.30 mm)
Grinders below 25,000 rpm	≥0.197" (5 mm)	0.006" (0.15 mm)
Grinders 25,000 rpm and above	≥0.197" (5 mm)	0.004" (0.10 mm)

2. Add back Table 24, line 4, from the 2010 version of the Standard

Table 24 – Standard maximum speeds in surface feet per minute, allowable without speed testing for superabrasive diamond and cubic boron nitride grinding wheels.

<b>Wheel Body (Core)</b>	<b>Bond Type (Rim Material)</b>			
	<b>Resin</b>	<b>Vitri ed</b>	<b>Metal</b>	<b>Single Layered Plated/Brazed</b>
1. Metal (Includes PM)	16,000	16,000	16,000	*
2. Resin	9,500	9,500	9,500	*
3. vitri ed	*	*	*	*

4. Solid Steel (Not PM)	16,000	16,000	16,000	25,000
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PM = Powdered Metallurgy

All speeds are listed in surface feet per minute (SFPM)

(\*) Non-standard product, no data available, must be speed tested.

## BSR/UL 67, Standard for Safety for Panelboards

### 1. Revision of Requirements in Paragraph 8.1.12 for Panelboard Door Enclosure Thickness

8.1.11 **(Note from the STP Project Manager: No revisions to this requirement are being proposed. This requirement is for reference only.)** A dead-front shield shall have a thickness not less than 0.032 inch (0.81 mm) if uncoated, not less than 0.034 inch (0.86 mm) if galvanized, and not less than 0.050 inch (1.27 mm) if aluminum.

8.1.12 In a dead-front panelboard that has a dead-front shield with a metal thickness in accordance with 8.1.11 and that also has a door as integral parts of the cover, the door may have a thickness less than the requirement of the Standard for Enclosures for Electrical Equipment, Non-Environmental Considerations, UL 50, but not less than 0.032 inch (0.81 mm) if uncoated steel, not less than 0.034 inch (0.86 mm) if galvanized steel, and not less than 0.050 inch (1.29 mm) if aluminum, provided the door complies with the deflection requirements for a drawn, embossed, or similarly strengthened door in the Standard for Enclosures for Electrical Equipment, Non-Environmental Considerations, UL 50.

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**BSR/UL 583, Standard For Safety For Electric-Battery-Powered Industrial Trucks**

**2. Clarification of Requirements for Self-Propelled Floor Cleaners**

**PROPOSAL**

SB3.2 The cleaning machine is to be operated with settings for normal operation as defined by the manufacturer for the duration of the test on a level test course. At the end of the test course, the cleaning machine is to negotiate a right angle turn after which all other functions are to be performed. The cleaning machine is then to be returned to the starting point, where all other functions are to be repeated.

*Exception: Manual walk behind floor cleaners are not required to operate over the test course as described in SB3.2.*

~~SB3.2.1 The test course for self-propelled floor cleaners does not contain a ramp.~~

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## BSR/UL 864, Standard for Safety for Control Units and Accessories for Fire Alarm Systems

### PROPOSAL

#### 1. Revised requirements for wireless systems and pathways

##### 55.4 PRIMARY BATTERIES

55.4.1 A primary battery is not prohibited from being used when all of the following conditions are met:

- a) The capacity of the primary battery shall be monitored for integrity. The battery shall be monitored while loaded by:
  - 1) Transmission of the transmitter or
  - 2) A load equivalent to the load imposed by transmission.

- b) A required battery trouble status signal shall be transmitted to the receiver/signaled to receiver and indicated at the fire alarm operator interface for a minimum of 7 days before the battery capacity of the transmitter/product has depleted to a level insufficient to maintain proper non-alarm operation of the transmitter/product. The battery trouble signal annunciation at the receiver/control unit is not prohibited from initially being delayed up to 4 hr. For transmitters utilizing one-way communication, the The battery trouble signal shall be retransmitted at intervals not exceeding four hours with a transmission duty cycle of not more than 15% measured over a one-minute interval or the product locks in the signal to the control unit until the battery is replaced.

*Exception: Transmitter/transceiver/receiver combinations utilizing two-way communication where all the following conditions are met:*

- 1) *The transceiver/receiver acknowledges receipt of the change of status signal to the corresponding transceiver/transmitter; and*
- 2) *The receiver/control unit annunciates the current trouble status of the corresponding input or output RF device after manual reset of the receiver/control unit.*
- c) The battery (of the transmitter/product) shall be capable of operating the transmitter/product, including the initiating device (if powered by the same battery), for not less than 1 year of normal signaling service before the battery depletion threshold specified in (b) is reached.
- d) Annunciation of the battery trouble status signal at the receiver/control unit shall be distinctly different from alarm, supervisory, tamper, and initiating circuit trouble signals. It shall consist of an audible and visual signal that shall identify the affected transmitter.
- e) The audible trouble signal of the receiver/control unit is not prohibited from being silenceable when provided with an automatic feature to resound the signal at intervals not exceeding 4 hr.
- f) The battery trouble status signal shall persist at the receiver/control unit until the depleted battery has been replaced.
- g) Any mode of failure of a primary battery in a device shall not affect any other device.

- h) Where a single battery failure affects the intended operation of the transmitter/product, each transmitter/product shall serve only one device and shall be individually identified at the receiver/control unit.
- i) Where multiple batteries are utilized and a single battery failure does not affect the intended operation of the transmitter/product and each battery is separately monitored for the battery depletion threshold and a low battery signal is transmitted when an individual battery reaches the battery depletion threshold, each transmitter/product shall be permitted to serve more than one device and each transmitter/product shall be individually identified at the receiver/control unit.

56.1.8 Pathways designated Class A shall operate as follows:

- a) A redundant path/channel is included.
- b) Operational capability continues past a single open, and the single open fault shall result in the annunciation of a trouble signal.
- c) Operational capability in a radio frequency and/or wireless pathway continues during a single fault consisting of each of the following applied separately:

- 1) loss of a transceiver and/or loss of a repeater powered as described in Sub-clause 55.4.1(H);

*Exception: where powered as described in Sub-clause 55.4.1(I).*

- 2) application of an adverse condition at a transceiver/repeater other than the device under test;
- 3) blocking one transmission path/channel while in use at the device under test for sending and/or receiving signals; and
- 4) blocking one path/channel at the control unit receiver/transceiver while that channel is in use for receiving signals from and/or sending signals to the device under test.

The fault shall result in the annunciation of a trouble signal when a redundant path/channel is no longer available.

- d) Conditions that affect the intended operation of the path are annunciated as a trouble signal.
- e) Operational capability is maintained during the application of a single ground fault.
- f) A single ground condition shall result in the annunciation of a trouble signal.
- g) Where operational capability is to be maintained during a fault, the operational capability shall be restored within 200 s of the application of the fault.

*Exception No. 1: Requirements (e) and (f) shall not apply to non-conductive pathways (e.g. wireless or fiber).*

*Exception No. 2: Requirement (b) shall not apply to radio frequency/wireless pathways.*

## **BSR/UL 924, Standard for Safety for Emergency Lighting and Power Equipment**

### **2. Restricting replacement of individual batteries and cells**

#### **PROPOSAL**

22.8 Battery packs consisting of more than one battery or cell shall not permit individual batteries or cells to be replaced, in order to avoid mixing new and old batteries that can create voltage imbalances within the cells.

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