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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

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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 6, 2019

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

#### **Addenda**

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

The current standard contains exceptions for leakage from energy recovery systems. These exceptions have been misinterpreted and misapplied. The current definition of energy recovery ventilation systems is not used, and the term energy recovery device is not defined. The definition is therefore modified.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

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

This proposed addendum updates the normative references in Section 9 (References) of Standard 62.2.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

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

The primary objective of this proposed addendum is clarification of the word “accessible”. The new definition added to Section 3 is closely based on the definition of “accessible” in another consensus standard, the Uniform Mechanical Code 2018.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

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

Several questions have arisen from users of the standard and within the SSPC itself regarding requirements for installation and operation of mechanical ventilation systems. The changes proposed in this addendum are intended to clarify the requirements for complying with the standard. The changes introduce a specific paragraph to address operation requirements (4.4.2). Note that the deletion of the last sentence in Section 4.4.1 does not remove the requirement to label controls. These are still required per the existing text in Section 6.2 “Controls and Labeling”.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

BSR/ASHRAE/ASHE Addendum 170g-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

Proposed Addendum g creates a more harmonious reference to ventilation requirements for those spaces located within a Health Care Facility which are not explicitly specified within the three Design Parameter Tables of the Standard (Tables 7.1, 8.1, and 9.1). The new phrasing acknowledges that other space ventilation rate requirements likely exist in other Codes or Standards for those spaces not included in the Design Parameter Tables and that these spaces may also be physically located within Health Care Facilities. The addendum also adds the definitions of patient and resident that is aligned with the FGI Guidelines.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

BSR/ASHRAE/ASHE Addendum 170i-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

This proposed addendum changes Section 6.6 to clarify requirements for water in humidification systems.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Online Comment Database at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

BSR/ASHRAE/ICC/USGBC/IES Addendum aj to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

Addendum aj to 189.1-2017 adds minimum efficacy requirements for residential ventilating fans in bathrooms and utility rooms, and for systems that provide exhaust-air energy recovery. The new requirements reflect the average performance attainable using products currently on the market. This addendum will also create better alignment between Standard 189.1 and the current requirements in the IECC.

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

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BSR/ASHRAE/ICC/USGBC/IES Addendum m to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

Addendum m to 189.1-2017 adds new provisions to ensure tubing is sized for efficient delivery of water through hot-water distribution systems. The new requirement balances health, energy, and plumbing code intents with energy and water efficiency strategies. The addendum is based in part on research by the California Energy Commission on the energy implications of hot water supply. The volume of water in a pipe is the primary determinant of how long a user must wait for hot water to be delivered at a fixture. This has significant implications for both energy use to heat the water and the volume of water wasted before delivery. Similar provisions are currently included in the 2018 IECC (Section C404.5) and the 2015 IgCC (Section 702.8).

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## **IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)**

### ***Revision***

BSR/ASSE 1061-201x, Performance Requirements for Push-Fit Fittings (revision of ANSI/ASSE 1061-2015)

The purpose of this standard is to establish minimum performance requirements for push-fit fittings and push-fit connections that are integrated into plumbing devices. The fittings described in this standard are intended for use in hot and cold potable water distribution and hydronic heating systems in residential and commercial applications. This revision addresses connections to CPVC-AL-CPVC, polybutylene, PP-R, and PP-RCT tubing.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [staffengineer@asse-plumbing.org](mailto:staffengineer@asse-plumbing.org). State "PR1061" in the subject line.

## **NSF (NSF International)**

### ***Revision***

BSR/NSF 455-3-201x (i15r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of cosmetic products to ISO 22716 Good Manufacturing Practices (GMPs) for cosmetics as well as incorporating additional retailer requirements. It refers to the requirements for GMPs applicable to all cosmetics. It will assist in the determination of adequate facilities and controls for cosmetic manufacture with sufficient quality to ensure suitability for intended use.

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

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

BSR/NSF 455-3-201x (i16r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of cosmetic products to ISO 22716 Good Manufacturing Practices (GMPs) for cosmetics as well as incorporating additional retailer requirements. It refers to the requirements for GMPs applicable to all cosmetics. It will assist in the determination of adequate facilities and controls for cosmetic manufacture with sufficient quality to ensure suitability for intended use.

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

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

BSR/NSF 455-3-201x (i18r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of cosmetic products to ISO 22716 Good Manufacturing Practices (GMPs) for cosmetics as well as incorporating additional retailer requirements. It refers to the requirements for GMPs applicable to all cosmetics. It will assist in the determination of adequate facilities and controls for cosmetic manufacture with sufficient quality to ensure suitability for intended use.

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

BSR/NSF 455-3-201x (i19r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of cosmetic products to ISO 22716 Good Manufacturing Practices (GMPs) for cosmetics as well as incorporating additional retailer requirements. It refers to the requirements for GMPs applicable to all cosmetics. It will assist in the determination of adequate facilities and controls for cosmetic manufacture with sufficient quality to ensure suitability for intended use.

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

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

BSR/NSF 455-3-201x (i20r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

This Standard is intended to define a standardized approach for auditing to determine the level of compliance of cosmetic products to ISO 22716 Good Manufacturing Practices (GMPs) for cosmetics as well as incorporating additional retailer requirements. It refers to the requirements for GMPs applicable to all cosmetics. It will assist in the determination of adequate facilities and controls for cosmetic manufacture with sufficient quality to ensure suitability for intended use.

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

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

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

### ***Revision***

BSR/UL 144-201x, Standard for Safety for LP-Gas Regulators (revision of ANSI/UL 144-2014)

The following is being proposed: (1) Revision of requirement to allow hoses on either the inlet or outlet of the regulator.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [jeffrey.prusko@ul.org](mailto:jeffrey.prusko@ul.org)

BSR/UL 854-201X, Standard for Safety for Service-Entrance Cables (Proposal dated 9/6/29) (revision of ANSI/UL 854-2014)

- (1) Clarification of requirements, Revised Table 18.1;
- (2) Sunlight resistance requirements, Revised 30.1.2; and
- (3) Editorial correction to cross-references in 14.1.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Linda Phinney, (510) 319-4297, [Linda.L.Phinney@ul.org](mailto:Linda.L.Phinney@ul.org)

BSR/UL 1238-201x, Standard for Safety for Control Equipment for Use with Flammable Liquid Dispensing Devices (revision of ANSI/UL 1238-2019)

The following topic is being proposed: (1) Addition of reference to UL 62368-1 as an alternative to UL 60950-1.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Marcia Kawate, (510) 319-4259, [Marcia.M.Kawate@ul.org](mailto:Marcia.M.Kawate@ul.org)

BSR/UL 1558-201x, Standard for Safety for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear (revision of ANSI/UL 1558-2017)

This proposal covers the addition of requirements to Section 19.6 for the allowance for Emergency-Use Switchgear. A similar version of this proposal was published by UL for recirculation on June 21, 2019.

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

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

## Comment Deadline: October 21, 2019

### AAFS (American Academy of Forensic Sciences)

#### ***New Standard***

BSR/ASB Std 095-201x, Standard for Minimum Qualifications and Training for a Footwear/Tire Forensic Science Service Provider (new standard)

This standard describes the minimum qualifications and is an outline for training for a footwear/tire forensic science service provider (FSSP) with little to no experience or previous training. This standard outlines what topics should be covered in a training program and is not intended to be the sole source of training material.

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BSR/ASB Std 119-201x, Standard for the Analytical Scope and Sensitivity of Forensic Toxicology Testing for Medicolegal Death Investigations (new standard)

This document delineates the minimum requirements for target analytes and analytical sensitivity for the toxicological testing of blood specimens in medicolegal death investigations. This document does not include the analysis of urine, tissues, or other specimens that are commonly analyzed in medicolegal death investigations.

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BSR/ASB Std 120-201x, Standard for the Analytical Scope and Sensitivity of Forensic Toxicology Testing in Impaired Driving Investigations (new standard)

This document delineates the minimum requirements for target analytes and analytical sensitivity for the toxicological testing of blood and urine specimens collected from drivers suspected of being impaired. This document does not cover the analysis of breath, oral fluid, or other potential specimen types collected in impaired driving investigations.

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BSR/ASB Std 121-201x, Standard for the Analytical Scope and Sensitivity of Forensic Toxicology Urine Testing in Drug-Facilitated Crime Investigations. (new standard)

This document delineates the minimum requirements for target analytes and analytical sensitivity for the toxicological testing of urine specimens collected from alleged victims of drug-facilitated crimes (DFC). This document does not cover the analysis of blood and other evidence that may be collected in DFC cases.

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

### ***New National Adoption***

BSR/AAMI/ISO 23500-1-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 1: General requirements (identical national adoption of ISO 23500-1 and revision of ANSI/AAMI 23500-2014)

Base standard for a number of other standards dealing with water-treatment equipment, water, dialysis water, concentrates, and dialysis fluid (ISO 23500 series), and provides dialysis practitioners with guidance on the preparation of dialysis fluid for haemodialysis and related therapies and substitution fluid for use in online therapies, such as haemodiafiltration and haemofiltration. As such, this document functions as a recommended practice.

Single copy price: Free

Obtain an electronic copy from: [cbernier@aami.org](mailto:cbernier@aami.org)

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

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

BSR/AAMI/ISO 23500-2-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 2: Water treatment equipment for haemodialysis applications and related therapies (identical national adoption of ISO 23500-2 and revision of ANSI/AAMI 26722:2014)

Addressed to the manufacturer and/or supplier of water-treatment systems and/or devices used for the express purpose of providing water for haemodialysis or related therapies.

Single copy price: Free

Obtain an electronic copy from: [cbernier@aami.org](mailto:cbernier@aami.org)

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

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

BSR/AAMI/ISO 23500-3-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 3: Water for haemodialysis and related therapies (identical national adoption of ISO/DIS 23500-3 and revision of ANSI/AAMI 13959:2014)

Specifies minimum requirements for water to be used in haemodialysis and related therapies. Includes water to be used in the preparation of concentrates; dialysis fluids for haemodialysis, haemodiafiltration, and haemofiltration; and for the reprocessing of haemodialysers. Excludes the operation of water-treatment equipment and the final mixing of treated water with concentrates to produce dialysis fluid. Does not apply to dialysis-fluid regenerating systems.

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

BSR/AAMI/ISO 23500-4-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 4: Concentrates for haemodialysis and related therapies (identical national adoption of ISO 23500-4 and revision of ANSI/AAMI 13958-2014)

Specifies minimum requirements for concentrates used for haemodialysis and related therapies. Addressed to the manufacturer of such concentrates. In several instances in this document, the dialysis fluid is addressed, which is made by the end user, to help clarify the requirements for manufacturing concentrates. Because the manufacturer of the concentrate does not have control over the final dialysis fluid, any reference to dialysis fluid is for clarification and is not a requirement of the manufacturer. Includes concentrates in both liquid and powder forms. It also includes additives, also called spikes, which are chemicals that can be added to the concentrate to supplement or increase the concentration of one or more of the existing ions in the concentrate and thus in the final dialysis fluid. Also specifies requirements for equipment used to mix acid and bicarbonate powders into the concentrate at the user's facility.

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

BSR/AAMI/ISO 23500-5-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 5: Quality of dialysis fluid for haemodialysis and related therapies (identical national adoption of ISO 23500-5 and revision of ANSI/AAMI 11663 -2014)

Specifies minimum quality requirements for dialysis fluids used in haemodialysis and related therapies. Includes dialysis fluids used for haemodialysis and haemodiafiltration, including substitution fluid for haemodiafiltration and haemofiltration. Excludes the water and concentrates used to prepare dialysis fluid or the equipment used in its preparation.

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

### ***New Standard***

BSR/AAMI ST98-201x, Cleaning validation of health care products - Requirements for development and validation of a cleaning process for medical devices (new standard)

This standard covers the requirements to validate the cleaning instructions that are provided by the medical device manufacturer for processing medical devices.

Single copy price: Free

Obtain an electronic copy from: [abenedict@aami.org](mailto:abenedict@aami.org)

Order from: Amanda Benedict, (703) 253-8284, [abenedict@aami.org](mailto:abenedict@aami.org)

Send comments (with optional 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 62.1ag-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum replaces the calculation method in current Normative Appendix B2 (Separation of Exhaust Outlets and Outdoor Air Intakes) with a new method based upon ASHRAE RP-1635 (2016). This research was sponsored by ASHRAE TC 4.3. The purpose of this Research Project is to provide a simple yet accurate procedure for calculating the minimum distance required between the outlet of an exhaust system and the outdoor air intake to a ventilation system to avoid re-entrainment of exhaust gases. The new procedure addresses the technical deficiencies in the simplified equations and tables that are currently in Standard 62.1 -2016 and model building codes.

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

This proposed addendum is intended to address concerns regarding ventilation of new multifamily dwellings that are accessed by an enclosed common corridor where the operation of exhaust systems may draw air from the corridor. It is possible that corridor air may be contaminated and not suitable for use as make-up air for exhaust systems. Supply and balanced systems are allowed because they are less likely to introduce corridor air to the dwelling.

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BSR/ASHRAE/ASHE Addendum 170a-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

This proposed addendum clarifies filtration requirements on a space-by-space basis. The filtration levels designated, and their rational basis are included in Informative Appendix C, Table C-1. In brief, this proposed addendum: (1) Revises requirements for filters in the body of the standard, removes Table 6.4, and adds filter efficiencies by space to Tables 7-1, 8-1, and 9-1; and (2) Adds Informative Appendix C: Recommended Filter Efficiencies by Space Type.

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BSR/ASHRAE/ASHE Addendum 170j-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

Proposed Addendum j continues the process of reorganizing the standard into three components—Hospital, Outpatient, and Residential Health Care and Support—in alignment with the FGI Guidelines'. The intent is not to create additional requirements for outpatient or residential facilities but to separate these from hospital requirements and thus eliminate confusion over which requirements apply to which occupancies. The result will be clarification of a lower level of requirements for outpatient and residential health facilities. Generally, the changes are: (1) Incorporate Addendum 'a' updated filtration requirements; and (2) Revise the space name terminology, table organization, and subheadings.

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BSR/ASHRAE/ASHE Addendum 170o-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

Infection prevention and control (IPC) strategies include risk assessment, identification of people receiving care who are at increased risk of infection due to procedures and therapy they are undergoing and aligns the environment of care to mitigate risks. IPC strategies also identify and segregates those with communicable disease to spatially separate them from others at risk. This can be done through engineering controls, but it can also be accomplished through operational/administrative controls. This experience is therefore the basis for offering a risk-based approach to operation that departs from space requirements. For those health care providers that have the expertise to analyze, implement, and document their specific ventilation requirements, this proposed addendum provides a voluntary risk-based approach to establish operational ventilation rates for spaces required in this Standard.

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## **ASSP (ASC A10) (American Society of Safety Professionals)**

### ***Revision***

BSR/ASSP A10.44-201X, Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations (revision of ANSI/ASSP A10.44-2014)

This standard establishes the minimum requirements for the control of energy sources to prevent release of harmful energy that could cause death, injury, or illness to personnel performing construction and demolition work.

Single copy price: \$125.00

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## **ASTM (ASTM International)**

### ***New Standard***

BSR/ASTM WK52244-201x, Specification for Airsoft Face and Ear Protectors Used with Airsoft Eye Protective Devices Defined in ASTM F2879 (new standard)

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BSR/ASTM WK63871-201x, Test Method for Playground Surface Impact Testing in a Laboratory at a Specified Test Height (new standard)

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BSR/ASTM WK66202-201x, Test Method for a Portable Instrumented Surface Indenter for Measurement of Firmness and Stability (new standard)

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BSR/ASTM WK68388-201x, Test Method for In-Situ Testing of the Functional Properties of Equine Arena Surfaces: Artificial Surfaces (new standard)

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BSR/ASTM WK68389-201x, Test Method for Wax Binder Removal from Equestrian Synthetic Track Surfaces (new standard)

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BSR/ASTM WK68390-201x, Test Method for Water Holding Capacity (new standard)

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## **ASTM (ASTM International)**

### ***Reaffirmation***

BSR/ASTM E1679-2013 (R201x), Practice for Setting the Requirements for the Serviceability of a Building or Building-Related Facility, and for Determining What Serviceability is Provided or Proposed (reaffirmation of ANSI/ASTM E1679-2013)

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BSR/ASTM F450-2013 (R201x), Test Methods for Vacuum Cleaner Hose - Durability and Reliability (Plastic) (reaffirmation of ANSI/ASTM F450-2013)

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BSR/ASTM F861-2014a (R201x), Specification for Commercial Dishwashing Racks (reaffirmation of ANSI/ASTM F861-2014a)

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BSR/ASTM F1899-2014 (R201x), Specification for Food Waste Pulper without Waterpress Assembly (reaffirmation of ANSI/ASTM F1899-2014)

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BSR/ASTM F1919-2014 (R201x), Specification for Griddles, Single-Sided and Double-Sided, Gas and Electric (reaffirmation of ANSI/ASTM F1919-2014)

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BSR/ASTM F2679-2015 (R201x), Specification for 6-mm Projectiles Used with Airsoft Guns (reaffirmation of ANSI/ASTM F2679-2015)

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BSR/ASTM F2765-2014 (R201x), Specification for Total Lead Content in Synthetic Turf Fibers (reaffirmation of ANSI/ASTM F2765-2014)

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BSR/ASTM F2898-2011 (R201x), Test Method for Permeability of Synthetic Turf Sports Field Base Stone and Surface System by Non-Confined Area Flood Test Method (reaffirmation of ANSI/ASTM F2898-2011)

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BSR/ASTM F3103-2014 (R201x), Specification for Testing Off-Road Motorcycle and ATV Helmets (reaffirmation of ANSI/ASTM F3103-2014)

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## **ASTM (ASTM International)**

### ***Revision***

BSR/ASTM D5206-201x, Test Method for Windload Resistance of Rigid Plastic Siding (revision of ANSI/ASTM D5206-2013)

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BSR/ASTM E84-201x, Test Method for Surface Burning Characteristics of Building Materials (revision of ANSI/ASTM E84-2015)

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BSR/ASTM E119-201x, Test Methods for Fire Tests of Building Construction and Materials (revision of ANSI/ASTM E119-2015)

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BSR/ASTM E136-201x, Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750C (revision of ANSI/ASTM E136-2016)

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BSR/ASTM E162-201x, Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source (revision of ANSI/ASTM E162-2015)

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BSR/ASTM E800-201x, Guide for Measurement of Gases Present or Generated during Fires (revision of ANSI/ASTM E800-2014)

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BSR/ASTM E1474-201x, Test Method for Determining the Heat Release Rate of Upholstered Furniture and Mattress Components or Composites Using a Bench Scale Oxygen Consumption Calorimeter (revision of ANSI/ASTM E1474-2014)

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BSR/ASTM E1740-201x, Test Method for Determining the Heat Release Rate and Other Fire-Test-Response Characteristics of Wall Covering or Ceiling Covering Composites Using a Cone Calorimeter (revision of ANSI/ASTM E1740-2015)

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BSR/ASTM E2231-201x, Practice for Specimen Preparation and Mounting of Pipe and Duct Insulation Materials to Assess Surface Burning Characteristics (revision of ANSI/ASTM E2231-2015)

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BSR/ASTM E2573-201x, Practice for Specimen Preparation and Mounting of Site-Fabricated Stretch Systems to Assess Surface Burning Characteristics (revision of ANSI/ASTM E2573-2017)

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BSR/ASTM E2989-201x, Guide for Assessment of Continued Applicability of Reaction to Fire Test Reports Used in Building Regulation (revision of ANSI/ASTM E2989-2015)

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BSR/ASTM E3134-201x, Specification for Transportation Tunnel Structural Components and Passive Fire Protection Systems (revision of ANSI/ASTM E3134-2017)

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BSR/ASTM F803-201x, Specification for Eye Protectors for Selected Sports (revision of ANSI/ASTM F803-2014)

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BSR/ASTM F917-201x, Specification for Commercial Food Waste Disposers (revision of ANSI/ASTM F917-2014)

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BSR/ASTM F953-201x, Specification for Commercial Dishwashing Machines (Stationary Rack, Dump Type) Chemical Sanitizing (revision of ANSI/ASTM F953-2014)

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BSR/ASTM F1776-201x, Specification for Eye Protective Devices for Paintball Sports (revision of ANSI/ASTM F1776-2014)

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BSR/ASTM F1777-201x, Practice for Paintball Field Operation (revision of ANSI/ASTM F1777-2012)

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BSR/ASTM F2223-201x, Guide for ASTM Standards on Playground Surfacing (revision of ANSI/ASTM F2223-2015)

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BSR/ASTM F2441-201x, Practice for Labeling of Backpacking and Mountaineering Tents and Bivouac Sacks (revision of ANSI/ASTM F2441-2012 (R2018))

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BSR/ASTM F2711-201x, Test Methods for Bicycle Frames (revision of ANSI/ASTM F2711-2008 (R2012))

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BSR/ASTM F2748-201x, Specification for Airsoft Guns (revision of ANSI/ASTM F2748-2015)

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BSR/ASTM F3101-201x, Specification for Unsupervised Public Use Outdoor Fitness Equipment (revision of ANSI/ASTM F3101-2015)

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**CSA (CSA America Standards Inc.)*****New Standard***

BSR/LNG 4.2-201x, Hoses for Liquefied Natural Gas (LNG) Dispensing Systems for Natural Gas Vehicles (NGV) (new standard)

This Standard applies to liquefied natural gas metallic hose assemblies which are used on LNG dispensers to connect the dispenser to the refueling nozzle and for gas lines which carry vented gas back to a safe location within the following service temperature range from -196°C to +65°C and nominal hose size range DN (NPS) from 10 to 50 (3/8 to 2). Hose assemblies covered by this Standard are intended for use with liquefied natural gas, a fluid in the liquid state at cryogenic temperatures that is composed predominantly of methane and that can contain minor quantities of ethane, propane, nitrogen, or other components normally found in natural gas. Length, installation, and inspection of hoses for LNG dispensing is subject to requirements in accordance with NFPA 52; CSA B108, Part 2; or other standards, as applicable, and the authority having jurisdiction (AHJ). In this Standard, "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; "should" is used to express a recommendation or that which is advised but not required; and "may" is used to express an option or that which is permissible within the limits of the Standard. Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and may be written as requirements. Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application. All dimensions used in this Standard are in metric units [International System of Units (SI)], unless otherwise specified. If a value for a measurement, as given in this Standard, is followed by an equivalent value in other units, the first stated is to be regarded as the specification. All references to pressure throughout this document are to be considered gauge pressures unless otherwise specified.

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**CTA (Consumer Technology Association)*****New Standard***

BSR/CTA 2087-201x, Recommendations and Best Practices for Connection and Use of Accessories for XR Technologies (new standard)

This document will explore XR (including augmented and virtual reality) technologies accessories and their connections and performance requirements with XR technologies hardware. The output would be to develop the following: (1) Agree on common terminology and definitions, and (2) Agree on a common connectivity standard including device compatibility.

Single copy price: Free

Obtain an electronic copy from: standards@cta.tech

Order from: Veronica Lancaster, (703) 907-7697, vlancaster@cta.tech

Send comments (with optional copy to psa@ansi.org) to: Same

**CTA (Consumer Technology Association)*****Reaffirmation***

BSR/CTA 2028-B-2014 (R201x), Color Codes for Outdoor TV Receiving Antennas (reaffirmation of ANSI/CTA 2028-B-2014)

This standard defines color codes to be associated with minimum performance parameters of outdoor television (TV) receiving antennas. When used in conjunction with the CEA TV antenna selector program at www.AntennaWeb.org, these color codes can help both consumers and professional installers select appropriate outdoor TV antennas for their particular reception environments.

Single copy price: Free

Obtain an electronic copy from: standards@cta.tech

Order from: standards@cta.tech

Send comments (with optional copy to psa@ansi.org) to: Same

BSR/CTA 2032-B-2014 (R201x), Indoor TV Receiving Antenna Performance Standard (reaffirmation of ANSI/CTA 2032-B-2014)

This standard defines test and measurement procedures for determining the performance of indoor TV receiving antennas.

Single copy price: Free

Obtain an electronic copy from: standards@cta.tech

Order from: Veronica Lancaster, (703) 907-7697, vlancaster@cta.tech

Send comments (with optional copy to psa@ansi.org) to: Same

## **CTA (Consumer Technology Association)**

### ***Stabilized Maintenance***

BSR/CTA 2020-2007 (S201x), Other VBI Waveforms (stabilized maintenance of ANSI/CTA 2020-2007 (R2014))

This standard, CTA 2020, specifies four Vertical Blanking Interval (VBI) waveforms in commercial use. The electrical properties of the waveforms are covered, but the meaning of the payload data is not. The waveforms apply to 525-line, interlaced (i.e., 480i) analog television signals. The waveforms may be present on analog inputs and analog outputs, but no conformance requirements about the actual presence of the waveforms are defined in CTA 2020.

Single copy price: Free

Obtain an electronic copy from: [standards@cta.tech](mailto:standards@cta.tech)

Order from: Veronica Lancaster, (703) 907-7697, [vlancaster@cta.tech](mailto:vlancaster@cta.tech)

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

## **HPS (ASC N13) (Health Physics Society)**

### ***Reaffirmation***

BSR N13.35-2009 (R201x), Specifications for the Bottle Manikin Absorption Phantom (reaffirmation of ANSI N13.35-2009)

This standard establishes the specifications for the design and fabrication of bottle manikin absorption (BOMAB) phantoms.

Single copy price: \$50.00

Obtain an electronic copy from: [nanjohns@verizon.net](mailto:nanjohns@verizon.net)

Order from: Nancy Johnson, (703) 790-1745, [nanjohns@verizon.net](mailto:nanjohns@verizon.net)

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

## **IAPMO (International Association of Plumbing & Mechanical Officials)**

### ***Revision***

BSR/IAPMO UMC 1-202x, Uniform Mechanical Code (revision of ANSI/IAPMO UMC 1-2018)

This code provides minimum standards to safeguard life or limb; health; property; and public welfare by regulating and controlling the design; construction; installation; quality of materials; location; operation; and maintenance or use of heating, ventilating, cooling, refrigeration systems; incinerators; and other miscellaneous heat-producing appliances. The provisions of this code apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of mechanical systems.

Single copy price: \$10.00

Obtain an electronic copy from: [Hugo.Aguilar@iapmo.org](mailto:Hugo.Aguilar@iapmo.org)

Order from: Hugo Aguilar, [hugo.aguilar@iapmo.org](mailto:hugo.aguilar@iapmo.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Gabriella Davis, [Gaby.Davis@iapmo.org](mailto:Gaby.Davis@iapmo.org)

BSR/IAPMO UPC 1-2021-201x, Uniform Plumbing Code (revision of ANSI/IAPMO UPC 1-2018)

This code provides minimum standards and requirements to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation and maintenance or use of plumbing systems. The provisions of this code apply to the erection, installation, alteration, repair, relocation, addition to, use or maintenance of plumbing systems.

Single copy price: \$10.00

Obtain an electronic copy from: [Hugo.Aguilar@iapmo.org](mailto:Hugo.Aguilar@iapmo.org)

Order from: Hugo Aguilar, [hugo.aguilar@iapmo.org](mailto:hugo.aguilar@iapmo.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Gabriella Davis, [Gaby.Davis@iapmo.org](mailto:Gaby.Davis@iapmo.org)

## **IAPMO (Z) (International Association of Plumbing & Mechanical Officials)**

### ***Reaffirmation***

BSR/IAPMO Z1157-2014 (R201x), Ball Valves (reaffirmation of ANSI/IAPMO Z1157-2014)

This Standard covers ball valves in sizes NPS-1/8 to NPS-4, with minimum rated working pressures of 860 kPa (125 psi) at 23°C (73° F), intended for use in water supply and distribution systems and specifies requirements for materials, physical characteristics, performance, testing, and markings.

Single copy price: \$70.00

Obtain an electronic copy from: [https://iapmomembership.org/index.php?page=shop.product\\_details&flypage=flypage\\_iapmo.tpl&product\\_id=1412&category\\_id=71&option=com\\_virtuemart&Itemid=3&redirected=1&Itemid=3](https://iapmomembership.org/index.php?page=shop.product_details&flypage=flypage_iapmo.tpl&product_id=1412&category_id=71&option=com_virtuemart&Itemid=3&redirected=1&Itemid=3)

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



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

### ***New Standard***

BSR/SCTE 42-201x, IP Multicast for Digital MPEG Networks (new standard)

The document describes two methods to transmit multicast IP datagrams over MPEG 2 digital transport streams. It describes the use of Digital Video Broadcasting (DVB) Multi-Protocol Encapsulation (MPE) Datagram Sections and the Advanced Television Systems Committee's (ATSC) Addressable Sections, to encapsulate IP datagrams for subsequent segmentation into fixed length MPEG transport packets.

Single copy price: \$50.00

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

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@standards.scte.org](mailto:admin@standards.scte.org)

BSR/SCTE 53-201x, Methods for Asynchronous Data Services Transport (new standard)

This proposal represents transmission format for the carriage of asynchronous data services, compatible with digital multiplex bitstreams constructed in accordance with ISO/IEC 13818-1 (MPEG-2 Systems). Bit rates for the data services extend from 300 bps to 288 kbps including some common high-speed modem rates of 115200 bps and 230400 bps. The proposal also covers the entire set of rates specified by the ITU-T Series-V Recommendations (V.22, V.23, V.26, V.27 ter, V.29, V.32, V.32 bis, V.32 ter, and V.34).

Single copy price: \$50.00

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

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@standards.scte.org](mailto:admin@standards.scte.org)

BSR/SCTE 55-1-201x, Digital Broadband Delivery System: Out-of-Band Transport - Part 1: Mode A (new standard)

This contribution is a derivative work created from DVS/110. The intention of this document is to provide a contribution whose scope is limited to the physical-layer specification for Out-Of-Band cable system. Specifications of MAC Layer and Link Layer are also provided for the Aloha implementation. The latter should be updated in the future, recognizing the potential adaptation of DOCSIS MAC Layer Specification.

Single copy price: \$50.00

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

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@standards.scte.org](mailto:admin@standards.scte.org)

BSR/SCTE 55-2-201x, Digital Broadband Delivery System: Out-of-Band Transport - Part 2: Mode B (new standard)

Describes the complete physical layer structure, i.e., framing structure, channel coding and modulation (QPSK), for each direction -- Downstream and Upstream.

Single copy price: \$50.00

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

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [admin@standards.scte.org](mailto:admin@standards.scte.org)

## **TIA (Telecommunications Industry Association)**

### ***Reaffirmation***

BSR/TIA 322-2016 (R201x), Loading Criteria, Analysis, and Design Related to the Installation, Alteration, and Maintenance of Communication Structures (reaffirmation of ANSI/TIA 322-2016)

The scope of this Standard is limited to providing engineering criteria to evaluate strength and stability requirements related to the installation, alteration, and maintenance of communication structures, based on construction loads as defined in a rigging plan prepared in accordance with the ANSI/ASSE A10.48 standard. Additionally, the scope includes design criteria for lifting devices and the generation of their load charts. The means and methods related to construction are not within the scope of this Standard.

Single copy price: \$146.00

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

Order from: TIA; [standards@tiaonline.org](mailto:standards@tiaonline.org)

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

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

BSR/UL 1694-2010 (R201x), Standard for Safety for Tests for Flammability of Small Polymeric Component Materials (reaffirmation of ANSI/UL 1694-2010 (R2015))

Reaffirmation and continuance of the third edition of the Standard for Tests for Flammability of Small Polymeric Component Materials, UL 1694, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

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

BSR/UL 842-201x, Standard for Safety for Valves for Flammable and Combustible Fluids (revision of ANSI/UL 842-2017)

The following is being proposed: Joint Standard for Safety for Valves for Flammable and Combustible Fluids, Binational standard for UL/ULC 842, using UL 842 and ULC-ORD C842.

Single copy price: Free

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Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

**Comment Deadline: November 5, 2019**

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

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

BSR/ASME B107.100-201x, Flat Wrenches (revision of ANSI/ASME B107.100-2010)

This standard defines essential performance and safety requirements specifically applicable to combination wrenches; box wrenches; double-head, open-end wrenches; double-head, flare-nut, adjustable wrenches; body repair tools; and ratcheting box wrenches. It specifies test methods to evaluate performance, related to the defined requirements and safety, and indicates limitations of safe use.

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 optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Daniel Papert, (212) 591-7526, [papertd@asme.org](mailto:papertd@asme.org)

**NASBLA (National Association of State Boating Law Administrators)****Revision**

BSR/NASBLA 102-201x, Basic Boating Knowledge - Plus Sailing (revision of ANSI/NASBLA 102-2017)

This discipline-specific "Plus" standard, when combined with the Basic Boating Knowledge – Core standard, establishes minimum essential knowledge to reduce recreational sailing risk factors. The combined standards are to be used for development of basic boating education courses and student assessment for sailing vessels. This standard applies to basic knowledge for recreational sailboating in the U.S. states, territories, and the District of Columbia.

Single copy price: Free

Obtain an electronic copy from: <https://esp.nasbla.org/esp/>

Order from: [pam@nasbla.org](mailto:pam@nasbla.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://esp.nasbla.org/esp/>

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

BSR/UL 2849-201x, Standard for Safety for Electrical Systems for eBikes (new standard)

This Standard covers the electrical system of eBikes including both Electrically Power Assisted Cycle (EPAC – pedal assist) and non-pedal assist eBike types. The electrical systems may include on-board components and off-board components of eBikes. As a minimum, the electrical system consists of the battery, battery management system (BMS), interconnecting wiring, and power inlet. Any additional components or systems required to demonstrate compliance are included based on the overall system application. Off-board components include dedicated chargers for charging batteries that are removed from the eBike during charging or dedicated chargers for charging batteries that are in place on the eBike during charging. This Standard does not cover the mechanical structure of the eBike unless specified otherwise.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <https://www.shopulstandards.com/>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Patricia Sena, (919) 549-1636, [patricia.a.sena@ul.org](mailto:patricia.a.sena@ul.org)

**Comment Deadline: December 5, 2019****NASBLA (National Association of State Boating Law Administrators)*****New Standard***

BSR/NASBLA 100-201x, Basic Boating Knowledge - Core (new standard)

This standard establishes the essential knowledge needed to reduce recreational boating risk factors and mitigate their effects. This "Core" standard is designed to be combined with discipline-specific power, sail, and/or human-propelled "Plus" standards for development of basic boating education courses and student assessment. This standard applies to basic boating knowledge for all disciplines (power, sail, or human-propelled) of recreational boating in the U.S. states, territories, and the District of Columbia.

Single copy price: Free

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Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://esp.nasbla.org/esp/>

**NASBLA (National Association of State Boating Law Administrators)*****Revision***

BSR/NASBLA 101-201x, Basic Boating Knowledge - Plus Human-Propelled (revision of ANSI/NASBLA 101-2017)

This discipline-specific "Plus" standard, when combined with the Basic Boating Knowledge – Core standard, establishes minimum essential knowledge to reduce human-propelled recreational boating risk factors. The combined standards are to be used for development of basic boating education courses and student assessment for human-propelled vessels. This standard applies to basic knowledge for human-propelled recreational boating in the U.S. states, territories, and the District of Columbia.

Single copy price: Free

Obtain an electronic copy from: <https://esp.nasbla.org/esp/>

Order from: [pam@nasbla.org](mailto:pam@nasbla.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://esp.nasbla.org/esp/>

BSR/NASBLA 103.1-201x, Supplement - Basic Boating Knowledge - Plus Water-Jet Propelled Boats (revision of ANSI/NASBLA 103.1-2018)

This discipline-specific supplement standard, when combined with both "Basic Boating Knowledge – Core" and "Basic Boating Knowledge - Plus Power" standards, establishes minimum essential knowledge to reduce recreational risk factors for water-jet propelled boat operation. The combined standards are to be used for development of basic boating education courses and student assessment for water-jet propelled powerboats. This standard applies to basic water-jet propelled boating knowledge in the U.S. states, territories, and the District of Columbia.

Single copy price: Free

Obtain an electronic copy from: <https://esp.nasbla.org/esp/>

Order from: [pam@nasbla.org](mailto:pam@nasbla.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://esp.nasbla.org/esp/>

BSR/NASBLA 103-201x, Basic Boating Knowledge - Plus Power (revision of ANSI/NASBLA 103-2016)

This discipline-specific "Plus" standard, when combined with the Basic Boating Knowledge – Core standard, establishes minimum essential knowledge to reduce recreational power-boating risk factors. The combined standards are to be used for development of basic boating education courses and student assessment for power driven vessels. This standard applies to basic knowledge for recreational power-boating in the U.S. states, territories, and the District of Columbia.

Single copy price: Free

Obtain an electronic copy from: <https://esp.nasbla.org/esp/>

Order from: [pam@nasbla.org](mailto:pam@nasbla.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://esp.nasbla.org/esp/>

## Project Withdrawn

In accordance with clause 4.2.1.3.3 Discontinuance of a standards project of the ANSI Essential Requirements, 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:

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

BSR/AAMI BE83-2006 (R201x), Biological evaluation of medical devices - Part 18: Chemical characterization of materials (reaffirmation of ANSI/AAMI BE83-2006 (R2011))

Inquiries may be directed to Amanda Benedict, (703) 253-8284, [abenedict@aami.org](mailto:abenedict@aami.org)

BSR/AAMI/ISO 14155-2010 (R201x), Clinical investigation of medical devices for human subjects - Good clinical practice (reaffirmation of ANSI/AAMI/ISO 14155-2010)

Inquiries may be directed to Colleen Elliott, (703) 253-8261, [celliot@aami.org](mailto:celliot@aami.org)

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

BSR N42.36-200x, Real-Time Accessible Data Networking (RadNet) (new standard)

Inquiries may be directed to Jennifer Santulli, (732) 562-3874, [J.Santulli@ieee.org](mailto:J.Santulli@ieee.org)

BSR N42.40-200x, Standard for Evaluation and Performance of High-Energy, X-Ray Interrogation Systems for Detection of Contraband of Concern in Homeland Security (new standard)

Inquiries may be directed to Jennifer Santulli, (732) 562-3874, [J.Santulli@ieee.org](mailto:J.Santulli@ieee.org)

BSR N42.56-201x, Standard Performance Criteria for Airborne Radiation Detection Systems Used for Homeland Security (new standard)

Inquiries may be directed to Jennifer Santulli, (732) 562-3874, [J.Santulli@ieee.org](mailto:J.Santulli@ieee.org)

## Notice of Withdrawal: ANS at least 10 years past approval date

The following American National Standards have not been revised or reaffirmed within ten years from the date of their approval as American National Standards and accordingly are withdrawn:

### **AWS (American Welding Society)**

ANSI/AWS A5.25/A5.25M-1997 (R2009), Specification for Carbon and Low-Alloy Steel Electrodes and Fluxes for Electroslag Welding

ANSI/AWS B2.1-4-217-2009, Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding of Chromium-Molybdenum Steel (M-4/P-4, Group 1 or 2), ER80S-B2, 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 3/4 in. Thick, PWHT Condition, Primarily Pipe Applications

ANSI/AWS B2.1-4-218-1999 (R2009), Standard Welding Procedure Specification (WPS) for Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-4/P-4, Group 1 or 2), E8018-B2, 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, Primarily Pipe Applications

ANSI/AWS B2.1-4-219-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding followed by Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-4/P-4, Group 1 or 2), 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, ER80S-B2 and E8018-B2, Primarily Pipe Applications

ANSI/AWS B2.1-4-220-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding (Consumable Insert Root) of Chromium-Molybdenum Steel (M-4/P-4, Group 1 or 2), E8018-B2, 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 3/4 in. Thick, PWHT Condition, IN515 and ER80S-B2, Primarily Pipe Applications

ANSI/AWS B2.1-4-221-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding (Consumable Insert Root) followed by Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-4/P-4, Group 1 or 2), 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, IN515, ER80S-B2, and E8018-B2, Primarily Pipe Applications

ANSI/AWS B2.1-5A-222-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding of Chromium-Molybdenum Steel (M-5A/P-5A), ER90S-B3, 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 3/4 in. Thick, PWHT Condition, Primarily Pipe Applications

ANSI/AWS B2.1-5A-223-1999 (R2009), Standard Welding Procedure Specification (WPS) for Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-5A/P-5A), E9018-B3, 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, Primarily Pipe Applications

ANSI/AWS B2.1-5A-224-1999 (R2009), Standard Welding Procedure Specification (WPS) Gas Tungsten Arc Welding followed by Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-5A/P-5A), 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, ER90S-B3 and E9018-B3, Primarily Pipe Applications

ANSI/AWS B2.1-5A-225-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding (Consumable Insert Root) of Chromium-Molybdenum Steel (M-5A/P-5A), 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 3/4 in. Thick, PWHT Condition, IN521 and ER90S-B3, Primarily Pipe Applications

ANSI/AWS B2.1-5A-226-1999 (R2009), Standard Welding Procedure Specification (WPS) for Gas Tungsten Arc Welding (Consumable Insert Root) followed by Shielded Metal Arc Welding of Chromium-Molybdenum Steel (M-5A/P-5A), 1/8 through 1/2 in. Thick, As-Welded Condition, 1/8 through 1-1/2 in. Thick, PWHT Condition, IN521, ER90S-B3, and E9018-B3, Primarily Pipe Applications

ANSI/AWS C6.1-2009, Recommended Practices for Friction Welding

ANSI/AWS D14.5/D14.5M-2009, Specification for Welding of Presses and Press Components

ANSI/AWS D18.2-2009, Guide to Weld Discoloration Levels on Inside of Austenitic Stainless Steel Tube

ANSI/AWS D18.1/D18.1M-2009, Specification for Welding of Tube and Pipe Systems in Sanitary (Hygienic) Applications

# 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:** 901 N. Glebe Road, Suite 300  
Arlington, VA 22203

**Contact:** Amanda Benedict

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

**E-mail:** abenedict@aami.org

BSR/AAMI ST98-201x, Cleaning validation of health care products - Requirements for development and validation of a cleaning process for medical devices (new standard)

BSR/AAMI/ISO 23500-1-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 1: General requirements (identical national adoption of ISO 23500-1 and revision of ANSI/AAMI 23500-2014)

BSR/AAMI/ISO 23500-2-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 2: Water treatment equipment for haemodialysis applications and related therapies (identical national adoption of ISO 23500-2 and revision of ANSI/AAMI 26722:2014)

BSR/AAMI/ISO 23500-2-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 2: Water treatment equipment for haemodialysis applications and related therapies (identical national adoption of ISO 23500-2 and revision of ANSI/AAMI 23500-2014)

BSR/AAMI/ISO 23500-3-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 3: Water for haemodialysis and related therapies (identical national adoption of ISO/DIS 23500-3 and revision of ANSI/AAMI 13959:2014)

BSR/AAMI/ISO 23500-4-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 4: Concentrates for haemodialysis and related therapies (identical national adoption of ISO 23500-4 and revision of ANSI/AAMI 13958-2014)

BSR/AAMI/ISO 23500-5-201x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 5: Quality of dialysis fluid for haemodialysis and related therapies (identical national adoption of ISO 23500-5 and revision of ANSI/AAMI 11663-2014)

## ASA (ASC S2) (Acoustical Society of America)

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

**Contact:** Caryn Mennigke

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

**E-mail:** asastds@acousticalsociety.org

BSR/ASA S2.1-201x/ISO 2041-2018, Mechanical Vibration, Shock and Condition Monitoring - Vocabulary (identical national adoption of ISO 2041:2018 and revision of ANSI/ASA S2.1-2009 (R2014), ISO 2041-2009 (R2014))

## ASSP (ASC A10) (American Society of Safety Professionals)

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

**Contact:** Tim Fisher

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

**E-mail:** TFisher@ASSP.org

BSR/ASSP A10.44-201X, Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations (revision of ANSI/ASSP A10.44-2014)

## ASSP (Safety) (American Society of Safety Professionals)

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

**Contact:** Tim Fisher

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

**E-mail:** TFisher@ASSP.org

BSR/ASSP Z590.5-201X, Management Systems for the Implementation of Total Worker Health® Programs in the Workplace (new standard)

BSR/ASSP Z590.7-201X, Management Systems for the Implementation of Total Worker Health® Programs in the Workplace (new standard)

**CGA (Compressed Gas Association)**

**Office:** 14501 George Carter Way  
Suite 103  
Chantilly, VA 20151

**Contact:** Thomas Deary

**Phone:** (703) 788-2716

**E-mail:** tdeary@cganet.com

BSR/CGA H-5-201x, Installation Standards for Bulk Hydrogen Supply Systems (revision of ANSI/CGA H-5-2014)

*CGA H-5, Installation Standards for Bulk Hydrogen Supply Systems. This purpose of this standard to provide requirements for locating/siting, selecting equipment, installing, starting up, maintaining, and removing bulk hydrogen supply systems. This consensus body is currently seeking voting members in the following categories:*

- *User (Industrial customers and others who use hydrogen in its varied applications);*
- *General Interest (DOE, universities, national laboratories);*
- *Other (Standards development organizations such as NFPA and ICC).*

**CTA (Consumer Technology Association)**

**Office:** 1919 South Eads Street  
Arlington, VA 22202

**Contact:** Veronica Lancaster

**Phone:** (703) 907-7697

**E-mail:** vlancaster@cta.tech

BSR/CTA 2020-2007 (S201x), Other VBI Waveforms (stabilized maintenance of ANSI/CTA 2020-2007 (R2014))

BSR/CTA 2028-B-2014 (R201x), Color Codes for Outdoor TV Receiving Antennas (reaffirmation of ANSI/CTA 2028-B-2014)

BSR/CTA 2032-B-2014 (R201x), Indoor TV Receiving Antenna Performance Standard (reaffirmation of ANSI/CTA 2032-B-2014)

BSR/CTA 2087-201x, Recommendations and Best Practices for Connection and Use of Accessories for XR Technologies (new standard)

**NASBLA (National Association of State Boating Law Administrators)**

**Office:** 1648 McGrathiana Parkway  
Suite 360  
Lexington, KY 40511

**Contact:** Pamela Dillon

**Phone:** (859) 225-9487

**E-mail:** pam@nasbla.org

BSR/NASBLA 100-201x, Basic Boating Knowledge - Core (new standard)

BSR/NASBLA 101-201x, Basic Boating Knowledge - Plus Human-Propelled (revision of ANSI/NASBLA 101-2017)

BSR/NASBLA 102-201x, Basic Boating Knowledge - Plus Sailing (revision of ANSI/NASBLA 102-201x)

BSR/NASBLA 103.1-201x, Supplement - Basic Boating Knowledge - Plus Water-Jet Propelled Boats (revision of ANSI/NASBLA 103.1-2018)

BSR/NASBLA 103-201x, Basic Boating Knowledge - Plus Power (revision of ANSI/NASBLA 103-2016)

**NSF (NSF International)**

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

**Contact:** Rachel Brooker

**Phone:** (734) 827-6866

**E-mail:** rbrooker@nsf.org

BSR/NSF 455-3-201x (i16r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

BSR/NSF 455-3-201x (i18r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

BSR/NSF 455-3-201x (i19r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

BSR/NSF 455-3-201x (i20r1), Good Manufacturing Practices for Cosmetics (revision of ANSI/NSF 455-3-2018)

**SDI (Steel Deck Institute)**

**Office:** PO Box 426  
Glenshaw, PA 15116

**Contact:** Robert Paul

**Phone:** (412) 487-3325

**E-mail:** bob@sdi.org

BSR/SDI QA/QC-201x, Standard for Quality Control and Quality Assurance for Installation of Steel Deck (revision of ANSI/SDI QA/QC-2017)

*BSR/SDI-QA/QC-20xx is a revision of the existing ANSI/SDI-QA/QC-2017 standard. ANSI/SDI-QA/QC-2017 is a standard for quality control and quality assurance for installation of steel deck to be used by designers, specifiers, manufacturers, and installers of steel deck used in floors and roofs. The specification sets guidelines and requirements for quality control and quality assurance for installation of steel deck. Non-mandatory user notes and commentary are included for further clarification and guidance. In the general interest category, stakeholders include educators, researchers, representatives of regulatory agencies, technical or professional societies, and manufacturers of related products. In the user category, stakeholders are specifiers, users, and installers of steel deck, including design engineers, architects, agencies that purchase or specify steel deck, installers, or distributors. In the producer category, stakeholders include steel deck and accessory manufacturers.*

**TIA (Telecommunications Industry Association)**

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

**Contact:** Teesha Jenkins

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

**E-mail:** standards@tiaonline.org

BSR/TIA 322-2016 (R201x), Loading Criteria, Analysis, and Design  
Related to the Installation, Alteration and Maintenance of  
Communication Structures (reaffirmation of ANSI/TIA 322-2016)

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

**Office:** 47173 Benicia Street  
Fremont, CA 94538

**Contact:** Linda Phinney

**Phone:** (510) 319-4297

**E-mail:** Linda.L.Phinney@ul.org

BSR/UL 854-201X, Standard for Safety for Service-Entrance Cables  
(revision of ANSI/UL 854-2014)



## **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.

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## ASME (American Society of Mechanical Engineers)

### Revision

- \* ANSI/ASME B107.110-2019, Socket Wrenches, Handles, and Attachments (revision of ANSI/ASME B107.110-2012): 8/29/2019

## CSA (CSA America Standards Inc.)

### Reaffirmation

- ANSI Z21.17-1998 (R2019); ANSI Z21.17a-2008 (R2019), Standard for Domestic Gas Conversion Burners (same as CSA 2.7-M98; CSA 2.7a) (reaffirmation of ANSI Z21.17-1998 (R2014); ANSI Z21.17a-2008 (R2014)): 8/29/2019

## ESTA (Entertainment Services and Technology Association)

### New Standard

- ANSI E1.33-2019, Entertainment Technology - (RDMnet) - Message Transport and Device Management of ANSI E1.20 (RDM) over IP Networks (new standard): 8/27/2019

## HL7 (Health Level Seven)

### Reaffirmation

- ANSI/HL7 V3 TRMLLP, R2-2006 (R2019), HL7 Version 3 Standard: Transport Specification - MLLP, Release 2 (reaffirmation of ANSI/HL7 V3 TRMLLP, R2-2006 (R2011)): 8/30/2019

## NEMA (ASC C8) (National Electrical Manufacturers Association)

### Reaffirmation

- ANSI ICEA S-89-648-2011 (R2019), ICEA Standard for Aerial Service Wire - Technical Requirements (reaffirmation of ANSI ICEA S-89-648-2011): 8/29/2019

## NSF (NSF International)

### Revision

- ANSI/NSF 49-2019 (i127r1), Biosafety Cabinetry - Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2018): 8/26/2019
- ANSI/NSF 50-2019 (i155r1), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2017): 8/29/2019

## UL (Underwriters Laboratories, Inc.)

### Reaffirmation

- ANSI/UL 2438-2014 (R2019), Standard for Safety for Outdoor Seasonal-Use Cord-Connected Wiring Devices. (reaffirmation of ANSI/UL 2438-2014): 8/29/2019

## VITA (VMEbus International Trade Association (VITA))

### New Standard

- ANSI/VITA 47.1-2019, Common Requirements for Environments, Design and Construction, Safety, and Quality for VITA 47 Plug-In Modules Dot Standard (new standard): 8/29/2019
- ANSI/VITA 47.2-2019, Class 2 Requirements for Environments, Design and Construction, Safety, and Quality for VITA 47 Plug-in Modules Dot Standards (new standard): 8/29/2019
- ANSI/VITA 47.3-2019, Class 3 Requirements for Environments, Design and Construction, Safety, and Quality for VITA 47 Plug-In Modules Dot Standard (new standard): 8/29/2019

# 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. Use the following Public Document Library url to access PDF & EXCEL reports of approved & proposed ANS: [List of Approved and Proposed ANS](#)

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.

## ASA (ASC S2) (Acoustical Society of America)

Contact: Caryn Mennigke, (631) 390-0215, [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)  
1305 Walt Whitman Road, Suite 300, Melville, NY 11747

### New National Adoption

BSR/ASA S2.1-201x/ISO 2041-2018, Mechanical Vibration, Shock and Condition Monitoring - Vocabulary (identical national adoption of ISO 2041:2018 and revision of ANSI/ASA S2.1-2009 (R2014), ISO 2041-2009 (R2014))

Stakeholders: Engineers, architects, and others with a need to understand and employ standard terminology for the measurement and description of quantities relevant to mechanical vibration, shock, and condition monitoring.

Project Need: Update the American National Standard terminology/vocabulary to be consistent with current International terminology/vocabulary.

Identical national adoption of ISO 2041:2018. A collection of terms and expressions unique to the specialized areas of mechanical vibration, shock, and condition monitoring. Document comprises a vocabulary of definitions and specifications for use in national and international standards pertaining to mechanical vibration, shock, and condition monitoring.

## ASSP (Safety) (American Society of Safety Professionals)

Contact: Tim Fisher, (847) 768-3411, [TFisher@ASSP.org](mailto:TFisher@ASSP.org)  
520 N. Northwest Highway, Park Ridge, IL 60068

### New Standard

BSR/ASSP Z590.5-201X, Management Systems for the Implementation of Total Worker Health® Programs in the Workplace (new standard)

Stakeholders: Occupational safety and health professionals implementing such programs in the workplace.

Project Need: Based upon the consensus and approval of the Board of Directors of the American Society of Safety Professionals (ASSP).

This standard defines requirements for the implementation, enhancement, and ongoing improvement of a management system addressing Total Worker Health® Programs in the Workplace.

BSR/ASSP Z590.7-201X, Management Systems for the Implementation of Total Worker Health® Programs in the Workplace (new standard)

Stakeholders: Occupational safety and health professionals implementing such programs in the workplace.

Project Need: Based upon the consensus and approval of the Board of Directors of the American Society of Safety Professionals (ASSP).

This standard defines requirements for the implementation, enhancement, and ongoing improvement of a management system addressing Total Worker Health® Programs in the Workplace.

**ASTM (ASTM International)**

Contact: *Laura Klineburger, (610) 832-9744, accreditation@astm.org*  
*100 Barr Harbor Drive, West Conshohocken, PA 19428-2959*

**New Standard**

BSR/ASTM WK69625-201x, New Test Methods for High-Temperature Fire-Resistance for Tunnel and/or other High-Intensity Fire Accessories (new standard)

Stakeholders: Fire Resistance industry.

Project Need: E3134 established a test procedure for tunnel linings (parent assemblies) as well as movement joints between tunnel lining segments. Traffic tunnels routinely have accessories, as in other items within or adjacent to the fire-resistive linings. These include, but are not limited to, service tunnels for mechanical and electrical services, such as electrical circuits for lighting, emergency power, fans (exhaust fumes from engines as well as, potentially, smoke, and pressurisation, potentially for egress and areas of refuge) as well as plumbing to pump out water that can collect in a traffic tunnel.

Opening protectives, mechanical, electrical, or structural service functionality in transportation tunnels and other rapid heat-rise, high-temperature fires.

**AWS (American Welding Society)**

Contact: *Peter Portela, (800) 443-9353, pportela@aws.org*  
*8669 NW 36 ST., #130, Miami, FL 33166*

**Revision**

BSR/AASHTO/AWS D1.5M/D1.5-201x, Bridge Welding Code (revision of ANSI/AASHTO/AWS D1.5M/D1.5-2015, AMD 1)

Stakeholders: Structural engineers, designers, manufacturers, welders, qualifiers, inspectors, and fabricators involved in welding bridges.

Project Need: Correct errors and insert pertinent content that was unintentionally omitted from the current published edition of AWS D1.5.

This code covers the welding requirements for AASHTO welded highway bridges made from carbon and low-alloy constructional steels.

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

Contact: *Jennifer Santulli, (732) 562-3874, J.Santulli@ieee.org*  
*445 Hoes Lane, Piscataway, NJ 08854*

**Addenda**

BSR N42.34a-201x, Standard Performance Criteria for Handheld Instruments for the Detection and Identification of Radionuclides (addenda to ANSI N42.34-2015)

Stakeholders: USDHS, USDOE, USNRC, USDOD, USDOC, and many equipment manufacturers.

Project Need: Amend the N42.34 standard scoring logic.

This standard specifies general, radiological, environmental, electromagnetic, and mechanical requirements, and associated test methods for handheld radionuclide identification devices (RIDs). Successful completion of the tests described in this standard should not be construed as an ability to identify all radionuclides in all environments.

**NSF (NSF International)**

Contact: *Monica Leslie, (734) 827-5643, mleslie@nsf.org*  
*789 N. Dixboro Road, Ann Arbor, MI 48105-9723*

**New Standard**

BSR/NSF 376-201x, Mechanical Water Filtration Systems for Microbial Reduction in Health Care Settings (new standard)

Stakeholders: Users (e.g., hospitals, health-care facilities), manufacturers, and public health regulators.

Project Need: Systems covered under this standard are intended to reduce bacteria and fungi that may adversely affect the health of patients, especially those who are immunocompromised, against intermittent incursions or accidental microbiological contamination of otherwise safe drinking water.

This standard establishes minimum performance requirements for the reduction of microorganisms using point-of-use (POU) mechanical filtration devices for supplemental treatment of microbiologically safe drinking water in health care settings for handwashing and showering.

## PHTA (Pool and Hot Tub Alliance)

Contact: Genevieve Lynn, (703) 838-0083, standards@phta.org  
2111 Eisenhower Ave., Alexandria, VA 22314

### Revision

BSR/PHTA/ICC-3-201x, Standard for Permanently Installed Residential Spas and Swim Spas (revision and redesignation of ANSI/APSP 3-2009)

Stakeholders: Designers, builders, and manufacturers of residential swimming pools, spas and hot tubs; regulatory bodies; building code officials; and consumers.

Project Need: To provide updated recommended minimum guidelines for permanently installed residential spas and swim spas and not public spas, swim spas, or factory-built residential portable spas, swim spas that are used for bathing and are operated by an owner.

This standard covers permanently installed residential spas and swim spas and not public spas, swim spas, factory-built residential portable spas, or swim spas that are used for bathing and are operated by an owner. It is a spa in which the heater and water-circulating equipment are not an integral part of the product. The spa is intended as a permanent fixture and is not intended to be moved.

BSR/PHTA/ICC-7-201x, Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs, and Catch Basins (revision and redesignation of ANSI/APSP 7-2013)

Stakeholders: Designers, builders, installers, and operators of swimming pools, wading pools, spas, hot tubs and catch basins; professionals of vacuum limiting systems; manufacturers of safety vacuum release devices/systems; manufacturers of swimming pool and spa circulation devices/components, swimming pool and spa pumps; and automatic pump shut-off devices/systems; service companies; test labs and test lab engineers; parties interested in entrapment avoidance issues; building and health code officials; and consumers.

Project Need: To provide updated recommended minimum guidelines for design and performance criteria for circulation systems including components, devices, and related technology installed to protect against entrapment hazards in residential and public swimming pool, wading pools, inground spas, infinity edge basins, (infinity edge type pools) and catch pools, and aquatic recreation facilities.

This standard covers design and performance criteria for circulation systems including components, devices, and related technology installed to protect against entrapment hazards in residential and public swimming pool, wading pools, inground spas, infinity edge basins (infinity edge type pools), and catch pools; and Aquatic Recreation Facilities.

BSR/PHTA/ICC 1-201x, Standard for Public Pool and Spa Design and Construction (revision and redesignation of ANSI/APSP 1-2013)

Stakeholders: Designers, builders, service companies, and retail businesses providing goods and services for public swimming pools, spas and aquatic venues; regulatory bodies; building code officials; and consumers.

Project Need: The aquatics industry has seen many changes in the engineering and technologies involving public swimming pools. To stay in pace with new and evolving codes, new industry technologies, and the current industry standards of care, this project is intended to provide updated recommended minimum guidelines for the design, equipment, installation of new construction and renovation of public pools, spas, and hot tubs for builders and installers.

Provides specifications for design, construction, installation, and equipment for public swimming pools, spas and aquatic venues operated by an owner, lessee, operator, licensee, or concessionaire, regardless of whether a fee is charged for use.

BSR/PHTA/ICC 6-201x, Standard for Residential Portable Spas and Swim Spas (revision and redesignation of ANSI/APSP 6-2013)

Stakeholders: Designers, builders, and manufacturers of residential portable electric spas, hot tubs, and swim spas; building code officials; and consumers.

Project Need: To provide updated recommended minimum guidelines for factory built residential portable (self-contained) spas or swim spas that are used for bathing and are operated by an owner. This standard does not cover non-self-contained spas, public spas, public swim spas, or permanently installed residential spas, or swim spas.

This standard covers factory-built residential portable (self-contained) spas or swim spas that are used for bathing and are operated by an owner. This standard does not cover Non-Self-Contained Spas, public spas, public swim spas, or permanently installed residential spas, or swim spas.

BSR/PHTA/ICC 8-201x, Standard for Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs (revision and redesignation of ANSI/APSP 8-2004 (R2013))

Stakeholders: Designers and builders of residential swimming pools, spas, swim spas, and hot tubs; aboveground pool ladder, alarm (child, fence gate, pool, etc.), manual safety/powered safety cover, chain link fence, infrared detector, mesh barriers/fence, pedestrian access gate, screen enclosure and self-closing/self-latching door and window device manufacturers; drowning prevention organizations; building and health code officials; and consumers.

Project Need: To provide updated recommended minimum guidelines for layers of protection for young children against the potential for drowning and near drowning in residential swimming pools, spas, and hot tubs by limiting or delaying their access to swimming pools, spas, and hot tubs.

This standard covers requirements that establish layers of protection for young children against the potential for drowning and near drowning in residential swimming pools, spas, and hot tubs by limiting or delaying their access to swimming pools, spas, and hot tubs.

BSR/PHTA/ICC 15-201x, Standard for Residential Swimming Pool and Spa Energy Efficiency (revision and redesignation of ANSI/APSP/ICC S-15-2011)

Stakeholders: Designers, builders, and manufacturers of residential swimming pools, spas, and hot tubs; local government officials/policymakers; state officials/policymakers; regulators; regional/national energy efficiency groups; energy efficiency service providers/vendors; consumer advocates; and consumers.

Project Need: To provide updated recommended minimum guidelines for energy efficiency requirements for permanently installed residential aboveground/onground and inground swimming pools and inground spas operated by the property owner and used for bathing. This standard is intended to cover certain aspects of the swimming pool filtration - system design; equipment, including pool filtration pumps, filters, valves, piping, inlet fittings and spa heaters; installation; and operational capabilities, for the purpose of minimizing energy consumption while maintaining water quality and temperature.

This standard covers energy efficiency requirements for permanently installed residential aboveground/onground and inground swimming pools and inground spas operated by the property owner and used for bathing. This standard is intended to cover certain aspects of the swimming pool filtration - system design; equipment, including pool and spa heaters; installation; and operational capabilities, for the purpose of minimizing energy consumption while maintaining water quality and temperature.

# 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)**
- **ITI (InterNational Committee for Information Technology Standards)**
- **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>AAFS</b> American Academy of Forensic Sciences 410 North 21st Street Colorado Springs, CO 80904 Phone: (719) 453-1036 Web: <a href="http://www.aafs.org">www.aafs.org</a></p>	<p><b>ASTM</b> ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Web: <a href="http://www.astm.org">www.astm.org</a></p>	<p><b>IAPMO</b> International Association of Plumbing &amp; Mechanical Officials 4755 East Philadelphia Street Ontario, CA 91761-2816 Phone: (909) 472-4203 Web: <a href="http://www.iapmo.org">www.iapmo.org</a></p>	<p><b>NSF</b> NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-5643 Web: <a href="http://www.nsf.org">www.nsf.org</a></p>
<p><b>AAMI</b> Association for the Advancement of Medical Instrumentation 901 N. Glebe Road, Suite 300 Arlington, VA 22203 Phone: (703) 253-8263 Web: <a href="http://www.aami.org">www.aami.org</a></p>	<p><b>AWS</b> American Welding Society 8669 NW 36 ST., #130 Miami, FL 33166 Phone: (800) 443-9353 Web: <a href="http://www.aws.org">www.aws.org</a></p>	<p><b>IAPMO (ASSE Chapter)</b> ASSE International Chapter of IAPMO 18927 Hickory Creek Dr Suite 220 Mokena, IL 60448 Phone: (708) 995-3017 Web: <a href="http://www.asse-plumbing.org">www.asse-plumbing.org</a></p>	<p><b>PHTA</b> Pool and Hot Tub Alliance 2111 Eisenhower Ave. Alexandria, VA 22314 Phone: (703) 838-0083 Web: <a href="http://www.apssp.org">www.apssp.org</a></p>
<p><b>ASA (ASC S2)</b> Acoustical Society of America 1305 Walt Whitman Road Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Web: <a href="http://www.acousticalsociety.org">www.acousticalsociety.org</a></p>	<p><b>CSA</b> CSA America Standards Inc. 8501 E. Pleasant Valley Road Cleveland, OH 44131 Phone: (216) 524-4990 Web: <a href="http://www.csagroup.org">www.csagroup.org</a></p>	<p><b>IAPMO (Z)</b> International Association of Plumbing &amp; Mechanical Officials 5001 East Philadelphia Street Ontario, CA 91761 Phone: (909) 230-5534 Web: <a href="http://www.iapmort.org">www.iapmort.org</a></p>	<p><b>SCTE</b> Society of Cable Telecommunications Engineers 140 Philips Rd Exton, PA 19341 Phone: (800) 542-5040 Web: <a href="http://www.scte.org">www.scte.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 Web: <a href="http://www.ashrae.org">www.ashrae.org</a></p>	<p><b>CTA</b> Consumer Technology Association 1919 South Eads Street Arlington, VA 22202 Phone: (703) 907-7697 Web: <a href="http://www.cta.tech">www.cta.tech</a></p>	<p><b>IEEE (ASC C63)</b> Institute of Electrical and Electronics Engineers 445 Hoes Lane Piscataway, NJ 08854 Phone: (732) 562-3874 Web: <a href="http://standards.ieee.org">standards.ieee.org</a></p>	<p><b>TIA</b> Telecommunications Industry Association 1320 North Courthouse Road Suite 200 Arlington, VA 22201 Phone: (703) 907-7706 Web: <a href="http://www.tiaonline.org">www.tiaonline.org</a></p>
<p><b>ASME</b> American Society of Mechanical Engineers Two Park Avenue New York, NY 10016-5990 Phone: (212) 591-8521 Web: <a href="http://www.asme.org">www.asme.org</a></p>	<p><b>ESTA</b> Entertainment Services and Technology Association 630 Ninth Avenue Suite 609 New York, NY 10036-3748 Phone: (212) 244-1505 Web: <a href="http://www.esta.org">www.esta.org</a></p>	<p><b>NASBLA</b> National Association of State Boating Law Administrators 1648 McGrathiana Parkway Suite 360 Lexington, KY 40511 Phone: (859) 225-9487 Web: <a href="http://www.nasbla.org">www.nasbla.org</a></p>	<p><b>UL</b> Underwriters Laboratories, Inc. 12 Laboratory Drive Research Triangle Park, NC 27709-3995 Phone: (919) 549-1636 Web: <a href="http://www.ul.com">www.ul.com</a></p>
<p><b>ASSP (Safety)</b> American Society of Safety Professionals 520 N. Northwest Highway Park Ridge, IL 60068 Phone: (847) 768-3411 Web: <a href="http://www.assp.org">www.assp.org</a></p>	<p><b>HL7</b> Health Level Seven 3300 Washtenaw Avenue Suite 227 Ann Arbor, MI 48104 Phone: (734) 677-7777 Web: <a href="http://www.hl7.org">www.hl7.org</a></p>	<p><b>NEMA (ASC C8)</b> National Electrical Manufacturers Association 1300 North 17th Street Rosslyn, VA 22209 Phone: (703) 841-3278 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>VITA</b> VMEbus International Trade Association (VITA) 929 W. Portobello Avenue Mesa, AZ 85210 Phone: (602) 281-4497 Web: <a href="http://www.vita.com">www.vita.com</a></p>
	<p><b>HPS (ASC N13)</b> Health Physics Society 1313 Dolley Madison Blvd #402 McLean, VA 22101 Phone: (703) 790-1745 Web: <a href="http://www.hps.org">www.hps.org</a></p>		





# 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); comments on ISO 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). 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. 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 8297/DAMd1, Acoustics - Determination of sound power levels of multisource industrial plants for evaluation of sound pressure levels in the environment - Engineering method - Amendment 1 - 11/17/2019, \$33.00

### BANKING AND RELATED FINANCIAL SERVICES (TC 68)

ISO/DIS 21586, Reference data for financial services - Specification for the description of banking products or services (BPOS) - 11/14/2019, \$125.00

### BUILDING CONSTRUCTION MACHINERY AND EQUIPMENT (TC 195)

ISO/DIS 15878, Road construction and maintenance equipment - Paver-finishers - Terminology and commercial specifications - 11/18/2019, \$102.00

### CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS (TC 209)

ISO/DIS 14644-17, Cleanrooms and associated controlled environments - Part 17: Particle deposition rate applications - 11/22/2019, \$82.00

### DOCUMENT IMAGING APPLICATIONS (TC 171)

ISO/DIS 21757-1, Document management - ECMAScript for PDF - Part 1: Use of ISO 32000-2 (PDF 2.0) - 11/18/2019, \$230.00

### GRAPHIC TECHNOLOGY (TC 130)

ISO/DIS 23498, Graphic technology - Visual opacity of printed white ink - 11/23/2019, \$46.00

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

ISO/DIS 10303-238, Industrial automation systems and integration - Product data representation and exchange - Part 238: Application protocol: Model based integrated manufacturing - 11/23/2019, \$29.00

### INDUSTRIAL TRUCKS (TC 110)

ISO 3691-2/DAMd2, Industrial trucks - Safety requirements and verification - Part 2: Self-propelled variable-reach trucks - Amendment 2 - 9/20/2019, \$40.00

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

ISO/DIS 15663, Petroleum, petrochemical and natural gas industries - Life cycle costing - 11/16/2019, \$155.00

### OTHER

ISO/DIS 6847, Welding consumables - Deposition of a weld metal pad for chemical analysis - 11/16/2019, \$33.00

### PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)

ISO 13758/DAMd1, Liquefied petroleum gases - Assessment of the dryness of propane - Valve freeze method - Amendment 1 - 9/19/2019, \$29.00

### PLASTICS (TC 61)

ISO/DIS 23706, Plastics - Determination of apparent activation energies of property changes in standard weathering test methods - 11/21/2019, \$71.00

### PLASTICS PIPES, FITTINGS AND VALVES FOR THE TRANSPORT OF FLUIDS (TC 138)

ISO/DIS 16486-1, Plastics piping systems for the supply of gaseous fuels - Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing - Part 1: General - 11/18/2019, \$88.00

ISO/DIS 16486-2, Plastics piping systems for the supply of gaseous fuels - Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing - Part 2: Pipes - 11/18/2019, \$62.00

ISO/DIS 16486-3, Plastics piping systems for the supply of gaseous fuels - Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing - Part 3: Fittings - 11/18/2019, \$77.00

### ROBOTS AND ROBOTIC DEVICES (TC 299)

ISO/DIS 22166-1, Robotics - Modularity for service robots - Part 1: General requirements - 11/21/2019, \$146.00

### SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/DIS 22013, Marine environment sensor performance - Specifications, testing and reporting - General requirements - 11/17/2019, \$112.00

**STEEL (TC 17)**

- ISO 10893-3/DAMd2, Non-destructive testing of steel tubes - Part 3: Automated full peripheral flux leakage testing of seamless and welded (except submerged arc-welded) ferromagnetic steel tubes for the detection of longitudinal and/or transverse imperfections - Amendment 2: Change acceptance criteria - 9/20/2019, \$29.00
- ISO 10893-8/DAMd1, Non-destructive testing of steel tubes - Part 8: Automated ultrasonic testing of seamless and welded steel tubes for the detection of laminar imperfections - Amendment 1: Change acceptance criteria - 9/20/2019, \$29.00
- ISO 10893-9/DAMd1, Non-destructive testing of steel tubes - Part 9: Automated ultrasonic testing for the detection of laminar imperfections in strip/plate used for the manufacture of welded steel tubes - Amendment 1: Change acceptance criteria - 9/20/2019, \$29.00
- ISO 10893-10/DAMd1, Non-destructive testing of steel tubes - Part 10: Automated full peripheral ultrasonic testing of seamless and welded (except submerged arc-welded) steel tubes for the detection of longitudinal and/or transverse imperfections - Amendment 1: Change the ultrasonic test frequency of transducers; change of acceptance criteria - 9/20/2019, \$29.00
- ISO 10893-11/DAMd1, Non-destructive testing of steel tubes - Part 11: Automated ultrasonic testing of the weld seam of welded steel tubes for the detection of longitudinal and/or transverse imperfections - Amendment 1: Change the ultrasonic test frequency of transducers; change of acceptance criteria - 9/20/2019, \$29.00
- ISO 10893-12/DAMd1, Non-destructive testing of steel tubes - Part 12: Automated full peripheral ultrasonic thickness testing of seamless and welded (except submerged arc-welded) steel tubes - Amendment 1: Change of acceptance criteria - 9/20/2019, \$29.00

**SURFACE CHEMICAL ANALYSIS (TC 201)**

- ISO/DIS 16531, Surface chemical analysis - Depth profiling - Methods for ion beam alignment and the associated measurement of current or current density for depth profiling in AES and XPS - 11/22/2019, \$71.00

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

- ISO/DIS 14341, Welding consumables - Wire electrodes and weld deposits for gas shielded metal arc welding of non alloy and fine grain steels - Classification - 11/21/2019, \$67.00
- ISO/DIS 23493, Welding and allied processes - Recommendation for welding of metallic materials - Laser-arc hybrid welding - 11/17/2019, \$62.00

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

- ISO/IEC DIS 10779, Information technology - Office equipment - Accessibility guidelines for older persons and persons with disabilities - 11/17/2019, \$82.00
- ISO/IEC DIS 21122-5, Information technology - JPEG XS low-latency lightweight image coding system - Part 5: Reference software - 11/21/2019, \$53.00
- ISO/IEC DIS 21794-1, Information technology - JPEG Pleno Plenoptic image codingsystem - Part 1: Framework - 11/21/2019, \$82.00
- ISO/IEC/IEEE DIS 12207-2, Systems and software engineering - Software life cycle processes - Part 2: Relation and mapping between ISO/IEC/IEEE 12207-1:2017 and ISO/IEC/IEEE 12207:2008 - 11/16/2019, \$194.00

**IEC Standards**

- 4/375/DTS, IEC TS 62882 ED1: Hydraulic machines - Technical specification for Francis turbine pressure fluctuation transposition, /2019/11/2

- 20/1883/FDIS, IEC 60754-2/AMD1 ED2: Amendment 1 - Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity, /2019/10/1
- 20/1882/FDIS, IEC 60754-1/AMD1 ED3: Amendment 1 - Test on gases evolved during combustion of materials from cables - Part 1: Determination of the halogen acid gas content, /2019/10/1
- 22G/397A/CD, IEC 61800-5-1 ED3: Adjustable speed electrical power drive systems - Part 5-1: Safety requirements - Electrical, thermal and energy, /2019/10/1
- 23G/430/CD, IEC 60320-1/FRAG2 ED4: Appliance couplers for household and similar general purposes - Part 1: General requirements, /2019/11/2
- 23G/431/CD, IEC 60320-1/FRAG6 ED4: Appliance couplers for household and similar general purposes - Part 1: General requirements, /2019/11/2
- 31/1501/CD, IEC 60079-44: Explosive atmospheres - Part 44 - Personal Competence, /2019/11/2
- 34/640/NP, PNW 34-640: Digital addressable lighting interface - Part 250: Particular requirements for control gear - Integrated Bus Power Supply (Device Type 49), /2019/11/2
- 34/621/CDV, IEC 63103 ED1: Lighting equipment - Non-active mode power measurement, /2019/11/2
- 34/639/NP, PNW 34-639: Digital addressable lighting interface - Part 150: Auxiliary power supply, /2019/11/2
- 34/641/NP, PNW 34-641: Digital addressable lighting interface - Part 251: Particular requirements for control gear - Memory bank 1 extension (Device Type 50), /2019/11/2
- 34/642/NP, PNW 34-642: Digital addressable lighting interface - Part 252: Particular requirements for control gear - Energy Reporting (Device Type 51), /2019/11/2
- 34/643/NP, PNW 34-643: Digital addressable lighting interface - Part 253: Particular requirements for control gear - Diagnostics and maintenance (Device Type 52), /2019/11/2
- 45A/1292/CD, IEC/IEEE 63113 ED1: Nuclear facilities - Instrumentation important to safety - Spent fuel pool instrumentation, /2019/10/2
- 45B/939/CDV, IEC 63085 ED1: Radiation protection instrumentation - System of spectral identification of liquids in transparent and semitransparent containers (Raman systems), /2019/11/2
- 45B/942/FDIS, IEC 62706 ED2: Radiation protection instrumentation - Recommended climatic, electromagnetic and mechanical performance requirements and methods of tests, /2019/10/1
- 46/740/CD, IEC 62153-4-5 ED2: Metallic cables and other passive components test methods - Part 4-5: Electromagnetic compatibility (EMC) - Coupling or screening attenuation - Absorbing clamp method, /2019/11/2
- 46F/472/CDV, IEC 61169-60 ED1: Radio-frequency connectors Part 60: Sectional specifications RF coaxial connectors with inner diameter of outer conductors mm with Push on mating. Characteristics impedance 50 Ohm (type SMPM), /2019/11/2
- 46F/473/CDV, IEC 61169-65 ED1: Radio-Frequency-Connectors, Part 65: Sectional specification for RF coaxial connectors with 1,35mm inner diameter of outer conductor, with screw coupling, 50 Ohm characteristic impedance, for use up to 90 GHz, /2019/11/2
- 57/2116(F)/CDV, IEC 62351-4/AMD1 ED1: Amendment 1 - Power systems management and associated information exchange - Data and communications security - Part 4: Profiles including MMS and derivatives, /2019/11/1
- 57/2119/CDV, IEC 61968-13 ED2: Application integration at electric utilities - System interfaces for distribution management - Part 13: Common distribution power system model profiles, /2019/11/2
- 59F/385/CDV, IEC 60704-2-1 ED4: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-1: Particular requirements for vacuum cleaners, /2019/11/2

- 61J/722/CD, IEC 60335-2-117 ED1: Household and similar appliances - Part 2-117: Particular requirements for automatic floor treatment machines for commercial use, /2019/10/2
- 62C/745/CD, IEC 62083 ED3: Medical electrical equipment - Requirements for the safety of radiotherapy treatment planning systems, /2019/10/2
- 65C/982/NP, PNW 65C-982: IO-Link Safety - Functional safety communication and system extensions - Based on IEC 61131-9 (SDCI), /2019/11/2
- 90/443/CD, IEC 61788-23 ED2: Superconductivity - Part 23: Residual resistance ratio measurement - Residual resistance ratio of cavity-grade niobium superconductors, /2019/10/2
- 110/1142/CD, IEC 62906-5-5 ED1: Laser display devices - Part 5-5: Optical measuring methods of raster-scanning retina direct projection devices, /2019/10/2
- 113/506/CD, IEC TS 62607-8-2: Nanomanufacturing - Key control Characteristics - Part 8-2: Nano-enabled metal-oxide interfacial devices - Test method for the polarization properties by thermally stimulated depolarization current, /2019/11/2
- 115/216/DTR, IEC TR 63179 ED1: Planning of HVDC systems - Part 1: HVDC systems with line commutated converters, /2019/10/2
- 116/415(F)/CDV, IEC 63241-1 ED1: Electric motor-operated tools - Dust measurement procedure - Part 1: General requirements, /2019/11/1
- 116/416(F)/CDV, IEC 63241-2-6 ED1: Electric motor-operated tools - Dust measurement procedure - Part 2-6: Particular requirements for hand-held hammers, /2019/11/1
- 121A/321/DTS, IEC TS 63208 ED1: Low-voltage switchgear and controlgear - Security aspects, /2019/11/2
- CIS/A/1303/DC, Correction Factors of Broadband Antennas Used for NSA Site Validation and Associated Uncertainty, /2019/10/1
- CIS/D/462/CDV, CISPR 36 ED1: Electric and hybrid electric road vehicles - Radio disturbance characteristics - Limits and methods of measurement for the protection of off-board receivers below 30 MHz, /2019/11/2
- CIS/F/777/DISH, CISPR 15/ISH1 ED9: Interpretation Sheet 1 - Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment, /2019/10/1
- SyCSmartCities/108/CD, IEC 60050-831 ED1: International Electrotechnical Vocabulary (IEV) - Part 831: Smart city systems, /2019/11/2



# 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

### BIOTECHNOLOGY (TC 276)

[ISO 20391-2:2019](#), Biotechnology - Cell counting - Part 2:

Experimental design and statistical analysis to quantify counting method performance, \$209.00

### CERAMIC WARE, GLASSWARE AND GLASS CERAMIC WARE IN CONTACT WITH FOOD (TC 166)

[ISO 6486-1:2019](#), Ceramic ware, glass ceramic ware and glass dinnerware in contact with food - Release of lead and cadmium - Part 1: Test method, \$138.00

### CLEANROOMS AND ASSOCIATED CONTROLLED ENVIRONMENTS (TC 209)

[ISO 14644-3:2019](#), Cleanrooms and associated controlled environments - Part 3: Test methods, \$209.00

### DOCUMENTS AND DATA ELEMENTS IN ADMINISTRATION, COMMERCE AND INDUSTRY (TC 154)

[ISO 14533-4:2019](#), Processes, data elements and documents in commerce, industry and administration - Long term signature profiles - Part 4: Attributes pointing to (external) proof of existence objects used in long term signature formats (PoEAttributes), \$185.00

### EARTH-MOVING MACHINERY (TC 127)

[ISO 14397-1/Amd1:2019](#), Earth-moving machinery - Loaders and backhoe loaders - Part 1: Calculation of rated operating capacity and test method for verifying calculated tipping load - Amendment 1, \$19.00

### PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)

[ISO 6246/Amd1:2019](#), Petroleum products - Gum content of fuels - Jet evaporation method - Amendment 1: Purity requirement for n-heptane, \$19.00

### QUANTITIES, UNITS, SYMBOLS, CONVERSION FACTORS (TC 12)

[ISO 80000-2:2019](#), Quantities and units - Part 2: Mathematics, \$185.00

[ISO 80000-4:2019](#), Quantities and units - Part 4: Mechanics, \$103.00

[ISO 80000-5:2019](#), Quantities and units - Part 5: Thermodynamics, \$103.00

[ISO 80000-7:2019](#), Quantities and units - Part 7: Light and radiation, \$162.00

[ISO 80000-9:2019](#), Quantities and units - Part 9: Physical chemistry and molecular physics, \$103.00

[ISO 80000-10:2019](#), Quantities and units - Part 10: Atomic and nuclear physics, \$185.00

[ISO 80000-12:2019](#), Quantities and units - Part 12: Condensed matter physics, \$103.00

### ROAD VEHICLES (TC 22)

[ISO 21782-1:2019](#), Electrically propelled road vehicles - Test specification for electric propulsion components - Part 1: General test conditions and definitions, \$103.00

[ISO 21782-2:2019](#), Electrically propelled road vehicles - Test specification for electric propulsion components - Part 2: Performance testing of the motor system, \$68.00

[ISO 21782-3:2019](#), Electrically propelled road vehicles - Test specification for electric propulsion components - Part 3: Performance testing of the motor and the inverter, \$138.00

[ISO 21782-6:2019](#), Electrically propelled road vehicles - Test specification for electric propulsion components - Part 6: Operating load testing of motor and inverter, \$138.00

[ISO 23274-1:2019](#), Hybrid-electric road vehicles - Exhaust emissions and fuel consumption measurements - Part 1: Non-externally chargeable vehicles, \$138.00

### RUBBER AND RUBBER PRODUCTS (TC 45)

[ISO 16010:2019](#), Elastomeric seals - Material requirements for seals used in pipes and fittings carrying gaseous fuels and hydrocarbon fluids, \$68.00

### SOIL QUALITY (TC 190)

[ISO 15800:2019](#), Soil quality - Characterization of soil with respect to human exposure, \$185.00

### THERMAL INSULATION (TC 163)

[ISO 17738-2:2019](#), Thermal insulation products - Exterior insulation and finish systems (EIFS) - Part 2: Installation, \$138.00

[ISO 17738-3:2019](#), Thermal insulation products - Exterior insulation and finish systems (EIFS) - Part 3: Design requirements, \$68.00

## ISO/IEC JTC 1, Information Technology

[ISO/IEC 25030:2019](#), Systems and software engineering - Systems and software quality requirements and evaluation (SQuaRE) - Quality requirements framework, \$185.00

[ISO/IEC 15909-1:2019](#), Systems and software engineering - High-level Petri nets - Part 1: Concepts, definitions and graphical notation, \$162.00

[ISO/IEC 21122-3:2019](#), Information technology - JPEG XS low-latency lightweight image coding system - Part 3: Transport and container formats, \$185.00

## IEC Standards

### ELECTROMAGNETIC COMPATIBILITY (TC 77)

[IEC 61000-4-18 Ed. 2.0 b cor.1:2019](#), Corrigendum 1 - Electromagnetic compatibility (EMC) - Part 4-18: Testing and measurement techniques - Damped oscillatory wave immunity test, \$0.00

### LIGHTNING PROTECTION (TC 81)

[IEC 62561-2 Ed. 2.0 b cor.1:2019](#), Corrigendum 1 - Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes, \$0.00

### POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)

[IEC 62351-7 Ed. 1.0 b:2017](#), Power systems management and associated information exchange - Data and communications security - Part 7: Network and System Management (NSM) data object models, \$410.00

### SEMICONDUCTOR DEVICES (TC 47)

[IEC 60749-3 Ed. 2.0 b:2017](#), Semiconductor devices - Mechanical and climatic test methods - Part 3: External visual examination, \$47.00

### SUPERCONDUCTIVITY (TC 90)

[IEC 61788-22-1 Ed. 1.0 b:2017](#), Superconductivity - Part 22-1: Superconducting electronic devices - Generic specification for sensors and detectors, \$199.00

# 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 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 a 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).

## ANSI Accredited Standards Developers

### Approval of Reaccreditation

#### ASC Z133 – Safety in Tree Trimming Operations

The reaccreditation of Accredited Standards Committee Z133, Safety in Tree Trimming Operations, has been approved at the direction of ANSI's Executive Standards Council, under its recently revised operating procedures for documenting consensus on ASC Z133-sponsored American National Standards, effective September 3, 2019. For additional information, please contact the Secretariat of ASC Z133: Ms. Rosa Gutierrez, Compliance Services Manager, International Society of Arboriculture, 270 Peachtree Street NW, Suite 1900, Atlanta, GA 30303; phone: 217.778.4913; e-mail: [rgutierrez@isa-arbor.com](mailto:rgutierrez@isa-arbor.com).

### Reaccreditation

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

#### Comment Deadline: October 7, 2019

The American Society of Mechanical Engineers (ASME), an ANSI member and Accredited Standards Developer (ASD), has submitted revisions to its currently accredited operating procedures for documenting consensus on ASME-sponsored American National Standards, under which it was originally accredited in 2018. As the revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: Ms. Mayra Santiago, Manager, Standards, American Society of Mechanical Engineers, 2 Park Avenue, 6th Floor, New York, NY 10016-5990; phone: 212.591.8521; e-mail: [santiagom@asme.org](mailto:santiagom@asme.org). You may view/download a copy of the revisions during the public review period at the following URL: [www.ansi.org/accredPR](http://www.ansi.org/accredPR). Please submit any public comments on the revised procedures to ASME by October 7, 2019, with a copy to the ExSC Recording Secretary in ANSI's New York Office (e-mail: [Jthompso@ANSI.org](mailto:Jthompso@ANSI.org)).

# International Organization for Standardization (ISO)

## ISO Proposal for a New Field of ISO Technical Activity

### Machinery to be Used with Foodstuffs

#### Comment Deadline: September 6, 2019

DIN, the ISO member body for Germany, has submitted to ISO a proposal for a new field of ISO technical activity on Machinery for use with foodstuffs, with the following scope statement:

Standardization of individual machine types and their accessories used in the foodstuffs supply chain, as well as processing systems and complete production lines consisting of these machines.

All these machines process various raw materials and ingredients into intermediate food products and/or ready-to-eat food.

The standards to be created in this TC deal with specific and typical aspects of machines used in the food industry. These aspects include – but are not limited to – health and safety at work for operators (safety of food machinery) and consumer health and safety (food safety). Standards of this TC also focus on hygienic design principles.

Excluded are the fields covered by ISO/TC 23 (Tractors and machinery for agriculture and forestry), ISO/TC 283 (Occupational health and safety management) and ISO/TC 293 (Feed machinery).

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, September 6, 2019.

# Meeting Notices

## Meeting for Accredited Standards Committee (ASC) B109 Standards B109.1, B109.2, B109.3, and B109.4

Meeting Date: Monday, September 23, 2019- 8:00 AM – 4:00 PM CST

Meeting Location: Peppermill Reno, 2707 S. Virginia St., Reno, Nevada 89502--(Teleconference information available upon request)

Purpose: This is the annual ANSI B109 meeting. Updates will be given for each of the B109 standards.

Please register on line at [www.aga.org](http://www.aga.org). For more information, contact Jeff Meyers, [jmeyers@aga.org](mailto:jmeyers@aga.org).



# Information Concerning

## International Organization for Standardization (ISO)

### Call for U.S. TAG Administrators

### Subcommittees of TC 17 – Steel

There is currently no ANSI-accredited U.S. TAG Administrator for TC 17/SC 4, TC 17/SC 7, TC 17/SC 9, TC 17/SC 15, TC 17/SC 17, and TC 17/SC 20, and therefore ANSI is not a member of these committees.

The Secretariats for these committees are currently held by Germany (DIN) for TC 17/SC 4; France (AFNOR) for TC 17/SC 7; Japan (JISC) for TC 17/SC 9; China (SAC) for TC 17/SC 15 and TC 17/SC 17; and Sweden (SIS) for TC 17/SC 20.

#### **TC 17/SC 4 operates under the following scope:**

*Standardization of qualities, dimensions and tolerances of heat treatable and alloy steels used mainly in the engineering and automotive industry in either the non-heat treated or the heat treated conditions. Examples are free-cutting, bright, stainless, heat-resisting, tool, spring, valve and roller bearing steels including tubular products for these applications, but not those covered by ISO/TC 5.*

#### **TC 17/SC 7 operates under the following scope:**

*Standardization of methods of testing steel other than:*

*mechanical tests*

*chemical analysis*

*non-destructive tests covered by other ISO/TC 17/SCs and ISO/TC 135.*

#### **TC 17/SC 9 operates under the following scope:**

*Standardization of tinplate and blackplate – Qualities, dimensions, packaging, shipping, stocking and loading.*

#### **TC 17/SC 15 operates under the following scope:**

*Standardization of terminology, technical requirements, materials, dimensions and tolerances, test methods for railway rails, rail fasteners, wheel and wheelsets.*

**TC 17/SC 17 operates under the following scope:**

*Standardization of qualities, dimensions and tolerances of steel wire rod and steel wire products from a wire mill.*

*Standardization of types and qualities of wire rod (unalloyed steel for wire drawing and wire rod for electrodes).*

*Standardization of types and qualities of wires in so far as they are only used in that product form.*

*Excluded are those products which are already standardized by other Committees, eg, steel wire ropes excluding stainless steel wire, stainless steel wire rod and heat resisting wire which remain the responsibility of ISO/TC 17/SC 4.*

**TC 17/SC 20 operates under the following scope:**

*Standardization of general technical delivery conditions, inspection documents and general rules for selection and preparation of samples and test pieces for mechanical testing of wrought steels.*

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG for these committees should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)) for more information.

## **National Electrical Safety Code (NESC) 2022 Preprint – Opportunity for Public Comment**

The NESC 2022 Preprint contains over 500 change proposals and initial NESC Subcommittee recommendations that form the basis for soliciting public during an 8-month public comment period that opens 1 July 2019 and concludes 1 March 2020. This publication has been prepared to provide all interested persons an opportunity to study and comment on the Proposed Revisions to be incorporated into the 2022 Edition of the National Electrical Safety Code (NESC). The NESC Preprint provides the full text of each proposal to revise the 2017 Edition of the NESC together with the recommendation of the subcommittee that has cognizance of the rule addressed by the Change Proposal (CP). Public comment is invited on the disposition for each initial recommendation.

Several key topics addressed through change proposals include:

- A comprehensive revision of Section 14, Storage Batteries to recognize new battery technologies, applications, and their hazards
- A new section covering new and emerging electric generation station technologies focusing on photovoltaic (PV) generating stations
- Consolidation of antenna rules into a single location to clarify the required antenna rules and to treat antennas as equipment consistently throughout the code
- Clearance rules for guys and guy anchors
- Strength and loading rules addressing wind maps, ice maps, 60-foot exclusion, etc.
- Additive constant (k-Factor)

To submit a public comment(s) on change proposals contained in the NESC Preprint, see <https://standards.ieee.org/products-services/nesc/form.html>. All public comments help to shape final recommendations made by NESC Technical Subcommittees to form the 2022 NESC. Please note that after this initial public comment opportunity, a final public comment period will be announced in ANSI Standards Action.

To obtain a copy of the NESC Preprint, see [https://www.techstreet.com/ieee/products/2072811?utm\\_source=web&utm\\_medium=adpromo&utm\\_campaign=nesc&utm\\_term=ansi&utm\\_content=purchase](https://www.techstreet.com/ieee/products/2072811?utm_source=web&utm_medium=adpromo&utm_campaign=nesc&utm_term=ansi&utm_content=purchase)

**IEEE Member price:**

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**IEEE Non-member price:**

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## American National Standards (ANS) – Where to find Procedures, Guidance, Interpretations and More...

Please visit ANSI's website ([www.ansi.org](http://www.ansi.org)) for resources that will help you to understand, administer and participate in the American National Standards (ANS) process. Documents posted at these links are updated periodically as new documents and guidance are developed, whenever ANS-related procedures are revised, and routinely with respect to lists of proposed and approved ANS. The main ANS-related link is [www.ansi.org/asd](http://www.ansi.org/asd) and here are some direct links as well as highlights of information that is available:

- *ANSI Essential Requirements: Due process requirements for American National Standards* (always current edition): [www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)
- ANSI Standards Action (weekly public review announcements of proposed ANS and standards developer accreditation applications, listing of recently approved ANS, and proposed revisions to ANS-related procedures): [www.ansi.org/standardsaction](http://www.ansi.org/standardsaction)
- Accreditation information – for potential developers of American National Standards (ANS): [www.ansi.org/sdoaccreditation](http://www.ansi.org/sdoaccreditation)
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): [www.ansi.org/asd](http://www.ansi.org/asd)
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: [www.ansi.org/asd](http://www.ansi.org/asd)
- American National Standards Key Steps: [www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- American National Standards Value: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANS Web Forms for ANSI-Accredited Standards Developers - PINS, BSR8|108, BSR11, Technical Report: [www.ansi.org/PSAWebForms](http://www.ansi.org/PSAWebForms)
- Information about standards Incorporated by Reference (IBR): [www.ansi.org/ibr](http://www.ansi.org/ibr)
- ANSI - Education and Training: [www.standardslearn.org](http://www.standardslearn.org)

If you have a question about the ANS process and cannot find the answer quickly, please send an email to [psa@ansi.org](mailto:psa@ansi.org).

Please also visit Standards Boost Business at [www.standardsboostbusiness.org](http://www.standardsboostbusiness.org) for resources about why standards matter, testimonials, case studies, FAQs and more.

If you are interested in purchasing an American National Standard, please visit <https://webstore.ansi.org/>



**BSR/ASHRAE Addendum p  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum p to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**Second Public Review (July 2019)  
(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 p to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
Second 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

*The current standard contains exceptions for leakage from energy recovery systems. These exceptions have been misinterpreted and misapplied. The current definition of energy recovery ventilation systems is not used, and the term energy recovery device is not defined. The definition is therefore modified.*

*[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 p to 62.1-2016

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*Modify the definition in Section 3 as shown below.*

**energy recovery device ~~ventilation system~~:** a device or combination of devices or system to transfer heat and/or water vapor between separate outdoor and exhaust airstreams. ~~applied to provide the outdoor air for ventilation in which energy is transferred between the intake and exhaust airstreams.~~

*Modify Section 5.16.3.2.5 as shown below.*

**5.16.3.2.5** Class 2 air shall not be recirculated or transferred to Class 1 spaces.

**Exception:** When using any energy recovery device, recirculation from leakage, carryover, or transfer from the exhaust side of the energy recovery device is permitted, but shall not be counted as outdoor air. ~~Recirculated Exhaust air transfer ratio of~~ Class 2 air shall not exceed 10% of the outdoor air intake flow at the design static pressure differential as defined in AHRI 1060<sup>XX</sup>.

*Modify Section 5.16.3.3.2 as shown below*

**5.16.3.3.2** Class 3 air shall not be recirculated or transferred to any other space.

**Exception:** When using any energy recovery device, recirculation from leakage, carryover, or transfer from the exhaust side of the energy recovery device is permitted, but shall not be counted as outdoor air. ~~Recirculated Exhaust air transfer ratio of~~ Class 3 air shall not exceed 5% of the outdoor air intake flow at the design static pressure differential as defined in AHRI 1060<sup>XX</sup>.

*Add new reference in Section 9 as shown below*

XX. AHRI. 2018. AHRI 1060, *Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment*. Arlington, VA: AHRI.



**BSR/ASHRAE Addendum v  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

**Proposed Addendum v to  
Standard 62.2-2016, Ventilation and  
Acceptable Indoor Air Quality in  
Residential Buildings**

**Second Public Review (July 2019)  
(Draft Shows Proposed Independent Substantive  
Changes to Previous Public Review Draft)**

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).

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BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
 Second Independent Substantive Change Public Review Draft

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## FOREWORD

*This proposed addendum updates the normative references in Section 9 (References) of Standard 62.2.*

*[Note to Reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. 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 previous draft 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 substantive changes.]*

## Addendum v to 62.2-2016

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***Make the following changes to Section 6.9.***

**6.9 Carbon Monoxide Alarms.** A carbon monoxide alarm shall be installed in each dwelling unit in accordance with NFPA 720, *National Fire Alarm and Signaling Code* ~~Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment~~<sup>14</sup>, and shall be consistent with requirements of applicable laws, codes, and standards.

***Make the following changes to the references in Section 9. The remainder of the references in Section 9 are unchanged.***

## 9. REFERENCES

- ~~NFPA 720-2015, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment~~ NFPA 72-2019, National Fire Alarm and Signaling Code. National Fire Protection Association, Quincy, MA.





**BSR/ASHRAE Addendum w  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

# **Proposed Addendum w to Standard 62.2-2016, Ventilation and Acceptable Indoor Air Quality in Residential Buildings**

**First Public Review (July 2019)  
(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).

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BSR/ASHRAE Addendum w to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
 First Public Review Draft

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## FOREWORD

*The primary objective of this proposed addendum is clarification of the word “accessible”. The new definition added to Section 3 is closely based on the definition of “accessible” in another consensus standard, the Uniform Mechanical Code 2018.*

*[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 w to 62.2-2016

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*Revise Section 3 as shown below. The remainder of Section 3 is unchanged.*

*accessible*: having access to, but which first may require the removal or opening of an access panel, door, or similar obstruction.

~~*readily accessible*~~: capable of being quickly and easily reached for operation, maintenance, and inspection.

*Revise Section 4 as shown below. The remainder of Section 4 is unchanged. Reference Addendum k to 62.2-2016. Published addenda are posted on the ASHRAE website at <https://www.ashrae.org/technical-resources/standards-and-guidelines/standards-addenda/addenda-to-standard-62-2-2016>.*

[...]

**4.1.4.4 Installation and Maintenance.** All filters shall be ~~readily~~ accessible from within the occupiable space. Filter shall be installed using methods to minimize air bypass. In addition to the instruction and labeling requirements of Section 6.2, the filter designation required to meet the filtration requirements for this system shall be prominently displayed on or near the filter housing access door.

[...]

**4.4 Control and Operation.** An ~~readily~~ accessible manual ON-OFF control, including but not limited to a fan switch or a dedicated branch-circuit overcurrent device, shall be provided. Controls shall include text or an icon indicating the system’s function.

**Exception:** For multifamily dwelling units, the manual ON-OFF control shall not be required to be ~~readily~~ accessible.

*Revise Section 5 as shown below. The remainder of Section 5 is unchanged. Reference Addendum b to 62.2-2016. Published addenda are posted on the ASHRAE website at <https://www.ashrae.org/technical-resources/standards-and-guidelines/standards-addenda/addenda-to-standard-62-2-2016>.*

BSR/ASHRAE Addendum w to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
First Public Review Draft

[...]

**5.2.1 Control and Operation.** Demand-controlled mechanical exhaust systems shall be provided with at least one of the following controls:

- a. An ~~readily~~ accessible occupant-controlled ON-OFF control.
- b. An automatic control that does not impede occupant ON control.

[...]

**5.3.1 Control and Operation.** An ~~readily~~ accessible manual ON-OFF control shall be provided for each continuous mechanical exhaust system. The system shall be designed to operate during all occupiable hours.

**Exception:** For multifamily dwelling units, the manual ON-OFF control shall not be required to be ~~readily~~ accessible.

**Revise Section 6.8.1 as shown below.**

**6.8.1 Ventilation Openings.** Operable windows, skylights, through-the-wall inlets, window air inlets, or similar devices shall be ~~readily~~ accessible to occupants. Where openings are covered with louvers or otherwise obstructed, openable area shall be based on the free, unobstructed area through the opening.



**BSR/ASHRAE Addendum x  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

**Proposed Addendum x to  
Standard 62.2-2016, Ventilation and  
Acceptable Indoor Air Quality in  
Residential Buildings**

**First Public Review (August 2019)  
(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).

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BSR/ASHRAE Addendum x to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
 First Public Review Draft

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## FOREWORD

*Several questions have arisen from users of the standard and within the SSPC itself regarding requirements for installation and operation of mechanical ventilation systems. The changes proposed in this addendum are intended to clarify the requirements for complying with the standard. The changes introduce a specific paragraph to address operation requirements (4.4.2). Note that the deletion of the last sentence in Section 4.4.1 does not remove the requirement to label controls. These are still required per existing text in Section 6.2 “Controls and Labeling”. The term “accessible” when referring to access to controls is defined under another addendum (addendum w) that is also being publicly reviewed at this time.*

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striking through~~ (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 x to 62.2-2016

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*Revise Section 4 as shown below. The remainder of Section 4 is unchanged.*

### 4. DWELLING-UNIT VENTILATION

Each dwelling-unit shall be provided with a mechanical ventilation system that complies with the requirements of Sections 4.1 through 4.4, Section 4.5, or Section 4.6. ~~A dwelling-unit ventilation system shall be installed in compliance with Sections 4.1 through 4.4, Section 4.5, or Section 4.6.~~

**4.1 Ventilation Rate.** A mechanical exhaust system, supply system, or combination thereof shall be designed and provided with the capacity to deliver outdoor air ventilation to the whole dwelling-unit at a continuous rate not less than that specified in Sections 4.1.1 through 4.1.4. ~~A mechanical exhaust system, supply system, or combination thereof shall be installed to operate for each dwelling unit to provide continuous dwelling unit ventilation with outdoor air at a rate not less than specified in Section 4.1.1.~~

[...]

#### 4.4 Control and Operation.

**4.4.1 Control.** An readily accessible manual-ON-OFF control readily accessible to the dwelling-unit occupant, including but not limited to a fan switch or a dedicated branch-circuit overcurrent device, shall be provided. ~~Controls shall include text or an icon indicating the system’s function.~~

**Exception:** For multifamily dwelling units, the ~~manual-ON-OFF control~~ shall not be required to be readily accessible to the dwelling-unit occupant.

**4.4.2 Operation.** The system shall be operated as designed.

BSR/ASHRAE Addendum x to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*

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**4.5 Variable Mechanical Ventilation.** Dwelling-unit mechanical ventilation systems designed to provide variable ventilation shall comply with Section 4.5.1, 4.5.2, or 4.5.3. Sections 4.5.2 and 4.5.3 also require compliance with Normative Appendix C and require verification with supporting documentation from the manufacturer, designer, or specifier of the ventilation control system that the system meets the requirements of these sections. Where the dwelling-unit ventilation rate varies based on occupancy, occupancy shall be determined by occupancy sensors or by an occupant-programmable schedule. Operation shall comply with Section 4.4.2.

# STANDARD

## BSR/ASHRAE/ASHE Addendum g to ANSI/ASHRAE/ASHE Standard 170-2017

### Public Review Draft

# Proposed Addendum g to Standard 170-2017, Ventilation of Health Care Facilities

**First Public Review (June 2019)**  
**(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).

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BSR/ASHRAE/ASHE Addendum g to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*

First Public Review Draft

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## FOREWORD

*Proposed Addendum g creates a more harmonious reference to ventilation requirements for those spaces located within a Health Care Facility which are not explicitly specified within the three Design Parameter Tables of the Standard (Tables 7.1, 8.1, and 9.1). The new phrasing acknowledges that other space ventilation rate requirements likely exist in other Codes or Standards for those spaces not included in the Design Parameter Tables and that these spaces may also be physically located within Health Care Facilities.*

*Proposed Addendum g also adds the definitions of patient and resident that is aligned with the FGI Guidelines, serving as additional clarity of the standard's use and assists users to avoid mis-interpretation in application related to animal care.*

**[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 170-2017

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***Add new items in Section 3 Definitions as shown below. The remainder of Section 3 is unchanged.***

***patient***: A person receiving medical, surgical, or psychiatric care.

***resident***: A person living and receiving health, care, and/or support services in a nursing home, hospice facility, assisted living facility, independent living setting, or inpatient rehabilitation facility.

***Revise Section 7.1.a.2 as shown below. The remainder of Section 7.1 is unchanged.***

**7.1 General Requirements.** The following general requirements shall apply for space ventilation:

- a. Spaces shall be ventilated according to Table 7.1.

[...]

2. The ventilation requirements in this table are intended to provide for comfort as well as for asepsis and odor control in spaces of a health care facility that directly affect patient care. For spaces not specifically listed here, ventilation requirements shall be that of functionally equivalent spaces in the table. If no functionally equivalent spaces exist in the table, ventilation requirements shall be obtained from ANSI/ASHRAE Standard 62.1<sup>1</sup> in the absence of other Codes or Standards which govern those space ventilation rate requirements. Where spaces with prescribed rates in both Standard 62.1 and Table 7.1 of this standard exist, the higher of the two air change rates shall be used.

[...]



BSR/ASHRAE/ASHE Addendum g to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*

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***Revise Section 8.1.a.2 as shown below. The remainder of Section 8.1 is unchanged.***

**8.1 General Requirements.** The following general requirements shall apply for space ventilation:

a. Spaces shall be ventilated according to Table 8.1.

[...]

2. The ventilation requirements in this table are intended to provide for comfort as well as for asepsis and odor control in spaces of a health care facility that directly affect patient care. For spaces not specifically listed here, ventilation requirements shall be that of functionally equivalent spaces in the table. If no functionally equivalent spaces exist in the table, ventilation requirements shall be obtained from ANSI/ASHRAE Standard 62.1<sup>1</sup> in the absence of other Codes or Standards which govern those space ventilation rate requirements. Where spaces with prescribed rates in both Standard 62.1 and Table 8.1 of this standard exist, the higher of the two air change rates shall be used.

[...]

***Revise Section 9.1.a.2 as shown below. The remainder of Section 9.1 is unchanged.***

**9.1 General Requirements.** The following general requirements shall apply for space ventilation:

a. Spaces shall be ventilated according to Table 9.1.

[...]

2. The ventilation requirements in this table are intended to provide for comfort as well as for asepsis and odor control in spaces of a health care facility that directly affect resident care. For spaces not specifically listed here, ventilation requirements shall be that of functionally equivalent spaces in the table. If no functionally equivalent spaces exist in the table, ventilation requirements shall be obtained from ANSI/ASHRAE Standard 62.1<sup>1</sup> or ANSI/ASHRAE Standard 62.2<sup>XX</sup> in the absence of other Codes or Standards which govern those space ventilation rate requirements. Where spaces with prescribed rates in both Standard 62.1 or Standard 62.2<sup>XX</sup> and Table 9.1 of this standard exist, the higher of the two air change rates shall be used.

[...]

***Add new reference to Section 11 as shown below. The remainder of Section 11 is unchanged.***

**XX** ASHRAE 2016. ANSI/ASHRAE Standard 62.2, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*. Atlanta: ASHRAE.

# STANDARD

## BSR/ASHRAE/ASHE Addendum i to ANSI/ASHRAE/ASHE Standard 170-2017

### Public Review Draft

# Proposed Addendum i to Standard 170-2017, Ventilation of Health Care Facilities

**First Public Review (June 2019)**  
**(Draft shows Proposed Changes to Current Standard)**

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## FOREWORD

*This proposed addendum changes Section 6.6 to clarify requirements for water in humidification systems.*

*[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 i to 170-2017

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**Revise Paragraph 6.6, as follows:**

**6.6 Humidifiers.** When outdoor humidity and internal moisture sources are not sufficient to meet the requirements of Table 7.1, 8.1, or 9.1 humidification shall be provided by means of the facility air-handling systems. Steam or adiabatic high-pressure water-atomizing humidifiers shall be used.

### 6.6.1 General Requirements

- a. Locate humidifiers within air-handling units or ductwork to avoid moisture accumulation in downstream components, including filters and insulation.
- b. A humidity sensor shall be provided, located at a suitable distance downstream from the steam injection source.
- c. Controls shall be provided to limit duct humidity to a maximum value of 90% rh when the humidifier is operating.
- d. Duct takeoffs shall not be located within the humidifier's absorption distance.
- e. Humidifier-control valves shall be designed so that they remain off whenever the AHU unit is not in operation.
- f. Water for adiabatic high-pressure humidifiers shall comply with Section 6.6.3.

**6.6.2 Steam Humidifier Requirements.** Chemical additives used in the steam systems that serve humidifiers shall comply with FDA requirements.<sup>3</sup>

### 6.6.3 Adiabatic Atomizing Humidifier Requirements

- a. Humidifier water shall be treated with a reverse osmosis process, a UV-C sterilization light source, and a submicron filter. **Informative Note:** For more information, see ASTM (2011) in Appendix B.
- b. Treated humidifier water shall be continuously circulated from the source to the humidifier valves. All valves, headers, and piping not part of the recirculation loop shall drain completely when not in use. Water temperature shall be maintained within the control limits in the legionellosis risk management plan.

**Informative Note:** for more information, reference ASHRAE Guideline 12-2000 and ASHRAE Standard 188-2018

BSR/ASHRAE/ASHE Addendum i to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*

First Public Review Draft

- c. Ports suitable for testing water quality shall be provided in the treated humidifier water piping system.
- d. Moisture eliminators shall be provided as required to prevent moisture accumulation in ductwork.
- e. Water purity shall meet or exceed potable water standards at the point where it enters the ventilation system, space, or water-vapor generator.

# Public Review Draft

Proposed Addendum aj to Standard 189.1-2017

# Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review Draft (August 2019)  
(Draft Shows Proposed Changes to Current Standard)

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BSR/ASHRAE/ICC/USGBC/IES Addendum aj to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings* First Public Review Draft

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## Foreword

This addendum to ASHRAE 189.1-2017 modifies the requirements for low-capacity exhaust fans, including bathroom and utility room exhaust fans greater than 90 cfm as well as fan systems with exhaust air energy recovery. While these fans are typically designed and sold for use in single family residences, mid-rise residential occupancies and small commercial buildings often utilize the same small ventilation fans. These fans are frequently utilized as part of a ventilation strategy in multifamily buildings for point-of-source contaminant exhaust. These fans are a common load, and potentially sum to a significant load in those multifamily buildings regulated by ASHRAE 189.1.

Currently in ASHRAE 189.1, the exhaust fans covered by this addendum must meet an EnergyStar requirement of 3.5 cfm/W for 90 to 200 cfm fans, or 4.0 cfm/W for fans up to 500 cfm. These efficiencies are substantially lower than efficiency levels of many fans now available on the market. For example, according to the HVI database of fans, the average efficiency of bath fans greater than 90 cfm is approximately 8 cfm/W with the top quartile averaging 11.5 cfm/W. These substantially exceed the 3.5 or 4.0 cfm/W required by EnergyStar.

There is currently no requirement in Standard 189.1 for the efficiency of HRV systems. This addendum adds the efficiency value currently included in the IECC into Standard 189.1.

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## Addendum aj to 189.1-2017

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*Add new definition to Section 3:*

**nameplate rating:** the design load operating conditions of a device as shown by the *manufacturer* on the nameplate or otherwise marked on the device.

*Add new section as follows:*

**7.4.3.6.3 Low-power ventilation systems.** Ventilation systems shall meet the fan efficacy requirements of Table 7.4.3.6.3.

BSR/ASHRAE/ICC/USGBC/IES Addendum aj to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings* First Public Review Draft

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**Table 7.4.3.6.3 Minimum Ventilation Fan Efficacy Requirements**

<u>Fan Type</u>	<u>Minimum Efficacy nameplate rating,</u>	<u>Test method and rating conditions</u>
Fan system with exhaust air energy recovery	<u>1.2 cfm/W (0.6 l/s/W)</u>	<u>CAN/CSA 439-18 – Efficacy for a fan system providing exhaust air energy recovery is that associated with the average of the system’s supply and exhaust flow rate.</u>
Bathroom, utility room $\geq$ 90 cfm (40 l/s)	<u>6.0 cfm/W (2.8 l/s/W)</u>	<u>ENERGY STAR Specification for Residential Ventilating Fans – Eligibility Criteria Version 4.1</u>

**Exceptions to 7.4.3.6.3**

1. Fans in fan-coils and terminal units that operate only when providing heating to the *space* served.
2. Fans in in *space*-conditioning equipment certified under Section 6.4.1 of ASHRAE/IES Standard 90.1.
3. Intermittently operating dryer exhaust duct power ventilators, domestic range hoods, or domestic range booster fans.
4. Ventilation systems with fan motor nameplate horsepower  $\geq$  1/12 hp (62.1 W).
5. Ventilation fans with fan nameplate electrical input power  $\geq$  180 W.

Add new reference standards to Chapter 11 as follows:

Reference	Title	Section
...		
<b>Canadian Standards Association (CSA)</b> 5060 Spectrum Way, Suite 100 Mississauga, Ontario, L4W 5N6, Canada 1-800-463-6727 and 1-416-747-4000; www.csa.ca		
CSA S478-95 (R2007)	Guideline on Durability for Buildings	9.4.1, 10.3.2.3
<u>CAN/CSA 439-18</u>	<u>Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators; January 2018</u>	<u>7.4.3.6.3</u>
...		
<b>United States Environmental Protection Agency (EPA) 1200</b> Pennsylvania Ave NW Washington, DC 20460, United States 1-888-782-7937 and 1- 202-775-6650; www.energystar.gov		

BSR/ASHRAE/ICC/USGBC/IES Addendum aj to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017, *Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings* First Public Review Draft

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Version 4.1, February 21, 2018

ENERGY STAR Specification for Residential Ventilating  
Fans Eligibility Criteria

7.4.3.6.3

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# Public Review Draft

Proposed Addendum m to Standard 189.1-2017

# Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

Second Public Review Draft (August 2019)  
(Draft Shows Proposed Changes to Current Standard)

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## Foreword

This addendum adds new provisions to enable right-sized tubing for efficient delivery of water through hot water distribution systems. The new requirement balances health, energy and plumbing code intents with energy and water efficiency strategies. The addendum is based in part on research by the California Energy Commission on the energy implications of hot water supply. The volume of water in a pipe is the primary determinant of how long a user must wait for hot water to be delivered at a fixture. This has significant implications for both energy use to heat the water and the volume of water wasted before delivery. Similar provisions are currently included in the 2018 IECC (Section C404.5) and the 2015 IgCC (Section 702.8.)

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## Addendum m to 189.1-2017

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*Insert new section 6.3.3 and renumber following sections as appropriate*

### **6.3.3 Hot water distribution.**

Hot water distribution pipes shall be designed in accordance with Section 6.3.3.1 and Section 6.3.3.2.

**6.3.3.1 Maximum allowable pipe volume.** The maximum volume of water in the pipes between the source of hot or tempered water and the fixtures shall be 64 ounces (1.9 L) where the source of hot or tempered water is a water heater; and 24 ounces (0.71 L) where the source of hot or tempered water is from a circulation loop pipe or an electrically heat-traced pipe. For the purpose of section 6.3.3, the source of hot or tempered water shall be the point of connection to a water heater, heat-traced pipe or a circulation loop.

The water volume in the pipe shall be calculated as follows:

The volume shall be the sum of the internal volumes of pipe, fittings, valves, meters and manifolds between the source of hot or tempered water and the termination of the fixture supply pipe. The volume shall be determined using Table 6.3.3.1 1. The volume contained within fixture shutoff valves, flexible water supply connectors to a fixture fitting, or within a fixture fitting shall not be included in the water volume determination. Where the source of hot or tempered water is a circulation loop pipe or an electrically heat-traced pipe, the volume shall include the portion of the fitting on the source pipe that supplies water to the

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fixture. Where the type of pipe is unknown or not specifically included in the table, the generic pipe column shall be used to determine the volume.

Exception to 6.3.3.1: This section shall not apply to public lavatory fixtures.

**TABLE 6.3.3.1.1**  
**INTERNAL VOLUME OF PIPE OR TUBE**

<b>Ounces of Water per Foot of Pipe</b>				
<b>Nominal Size (Inch)</b>	<b>Generic Pipe</b>	<b>Copper Type L</b>	<b>CPVC CTS SDR 11</b>	<b>PEX CTS SDR 9</b>
<u>1/4"</u>	<u>0.33</u>	<u>0.52</u>	<u>0.37</u>	<u>0.33</u>
<u>5/16"</u>	<u>0.5</u>	<u>NA</u>	<u>NA</u>	<u>0.48</u>
<u>3/8"</u>	<u>0.75</u>	<u>0.97</u>	<u>0.75</u>	<u>0.68</u>
<u>1/2"</u>	<u>1.5</u>	<u>1.55</u>	<u>1.25</u>	<u>1.18</u>
<u>5/8"</u>	<u>2</u>	<u>2.23</u>	<u>NA</u>	<u>1.78</u>
<u>3/4"</u>	<u>3</u>	<u>3.22</u>	<u>2.67</u>	<u>2.35</u>
<u>1"</u>	<u>5</u>	<u>5.47</u>	<u>4.43</u>	<u>3.91</u>
<u>1 1/4"</u>	<u>8</u>	<u>8.36</u>	<u>6.61</u>	<u>5.81</u>
<u>1 1/2"</u>	<u>11</u>	<u>11.83</u>	<u>9.22</u>	<u>8.09</u>
<u>2"</u>	<u>18</u>	<u>20.58</u>	<u>15.79</u>	<u>13.86</u>

<b>Liters of Water per Meter of Pipe</b>				
<b>Dimension Nominal DN (mm)</b>	<b>Generic Pipe</b>	<b>Copper Type L</b>	<b>CPVC CTS SDR 11</b>	<b>PEX CTS SDR 9</b>
<u>8</u>	<u>0.03</u>	<u>0.05</u>	<u>0.04</u>	<u>0.03</u>
<u>9</u>	<u>0.05</u>	<u>NA</u>	<u>NA</u>	<u>0.05</u>
<u>10</u>	<u>0.07</u>	<u>0.09</u>	<u>0.07</u>	<u>0.07</u>
<u>15</u>	<u>0.15</u>	<u>0.15</u>	<u>0.12</u>	<u>0.11</u>
<u>18</u>	<u>0.19</u>	<u>0.22</u>	<u>NA</u>	<u>0.17</u>
<u>20</u>	<u>0.29</u>	<u>0.31</u>	<u>0.26</u>	<u>0.23</u>
<u>25</u>	<u>0.49</u>	<u>0.53</u>	<u>0.43</u>	<u>0.38</u>
<u>32</u>	<u>0.78</u>	<u>0.81</u>	<u>0.64</u>	<u>0.56</u>
<u>40</u>	<u>1.07</u>	<u>1.15</u>	<u>0.89</u>	<u>0.78</u>
<u>50</u>	<u>1.75</u>	<u>2.00</u>	<u>1.53</u>	<u>1.34</u>

NA = No value provided based on lack of availability of pipe in this size.

**6.3.3.2 Maximum Length.** The maximum pipe length from the source of hot or tempered water to the termination of the fixture supply pipe serving any plumbing fixture or appliance shall not exceed 50 feet (15 m) of developed length.

## ASSE International

# Performance Requirements for Push-Fit Fittings

### Changes to ASSE 1061-2015

#### 1.2.1 Description

This standard applies to push-fit fittings that can be used with one or more of the following materials:

- 1) PEX tubing complying with ASTM F876 or CSA B137.5.
- 2) Copper tubing, hard drawn Type K, L and M and annealed Type M not to exceed 3/8 nominal, complying with ASTM B 88.
- 3) CPVC tubing complying with ASTM D2846 or CSA B137.6.
- 4) PE-RT tubing complying with ASTM F2769 or CSA B137.18.
- 5) PP-R/PP-RCT tubing complying with ASTM F2389 or CSA B137.11.
- 6) CPVC-AL-CPVC complying with ASTM F2855.

#### 1.3 Reference Standards

ASTM D2737 – 12a Standard Specification for Polyethylene (PE) Plastic Tubing

ASTM D3309 – 96a (R2002) (Withdrawn 2010), Standard Specification for Polybutylene (PB) Hot- and Cold-Water Distribution Systems.

ASTM F2389 – 17a Standard Specification for Pressure-rated Polypropylene (PP) Piping Systems

ASTM F2855 – 12 Standard Specification for Chlorinated Poly(Vinyl Chloride)/Aluminum/Chlorinated Poly(Vinyl Chloride) (CPVC-AL-CPVC) Composite Pressure Tubing

CSA B137.11 – 17 Polypropylene (PP-R) Pipe and Fittings for Pressure Applications

### 3.0 Performance Requirements and Compliance Testing

Fittings and tubing shall be joined in accordance with the manufacturer's installation instructions for all performance tests.

- a) Push-fit fittings intended for installation on PEX tubing shall comply with the testing requirements of ASTM F877, Hydrostatic Burst test and Hydrostatic Sustained Pressure Strength test. Testing shall include six (6) joints of each size coupled to PEX tubing.
- b) Push-fit fittings intended for installation on CPVC shall comply with the Pipe, Tube and Fittings Hydrostatic Sustained Pressure testing requirements of ASTM D2846, or shall comply with ASTM F877, Hydrostatic Burst test and Hydrostatic Sustained Pressure Strength test. Testing shall include six (6) joints of each size coupled to CPVC tubing.
- c) Push-fit fittings intended for installation on copper tubing shall comply with the Pipe, Tube and Fittings Hydrostatic Sustained Pressure testing requirements of ASTM D2846/D2846M, or Section 3.1 of this standard. Testing shall include six (6) joints of each size coupled to copper tubing.
- d) Push-fit fittings intended for installation on PE-RT tubing shall comply with the testing requirements of ASTM F2769, Sections 6.3 and 6.4, Burst Pressure test and Sustained Pressure

test, respectively. Testing shall include six (6) joints of each size coupled to PE-RT tubing. Test shall be performed to the hydrostatic design basis as specified by the manufacturer.

- e) Push-fit fittings intended for installation on PP-R/PP-RCT tubing shall comply with the testing requirements of ASTM F2389, Section 9.1, Hydrostatic Tests. Testing shall include six (6) joints of each size coupled to PP-R/PP-RCT tubing. Test shall be performed to the hydrostatic design basis as specified by the manufacturer
- f) Push-fit fittings intended for installation on CPVC-AL-CPVC tubing shall comply with the Hydrostatic Sustained Pressure testing requirements of ASTM D2846, or shall comply with ASTM F877, Hydrostatic Burst test and Hydrostatic Sustained Pressure Strength test. Testing shall include six (6) joints of each size coupled to CPVC-AL-CPVC tubing.
- eg) All push-fit fittings shall be tested in accordance with the thermocyclic test requirements of ASTM F877 using each type of tube for which the fitting is designed to be used. Testing shall include six (6) joints of each size for each type of tubing.

Table 1 Forces for Mechanical Separation test

Nominal Size (CTS)	Diameter Nominal (DN)	Longitudinal Test Load	
		Lbf ( $\pm 5.0$ )	N ( $\pm 22.2$ )
$\frac{3}{8}$ or smaller	<u>9</u>	80.0	(356)
$\frac{1}{2}$	<u>12</u>	120.0	(533.8)
$\frac{5}{8}$	<u>16</u>	170.0	(756.2)
$\frac{3}{4}$	<u>20</u>	215.0	(956.3)
1	<u>25</u>	375.0	(1668)
1 $\frac{1}{4}$	<u>32</u>	550.0	(2446)
1 $\frac{1}{2}$	<u>41</u>	785.0	(3492)
2	<u>51</u>	1320.0	(5871.7)

### 3.5 Bending Test with Rigid Tubing

Nominal Size (CTS)	Diameter Nominal (DN)	Copper Fittings				CPVC, PP-R, PP-RCT, or CPVC-AL-CPVC Fittings				PEX or PE-RT Fittings			
		Static Load (+10%, -0%)		Test Length		Static Load (+10%, -0%)		Test Length		Static Load (+10%, -0%)		Test Length	
		Lbf	N	Feet	Meters	Lbf	N	Feet	Meters	Lbf	N	Feet	Meters
$\frac{3}{8}$ or smaller	<u>9</u>	1.0	(4.4)	3.0	(0.91)	1.0	(4.4)	1.5	(0.46)	---	---	---	---
$\frac{1}{2}$	<u>12</u>	1.5	(6.7)	3.0	(0.91)	1.0	(4.4)	1.5	(0.46)	---	---	---	---
$\frac{5}{8}$	<u>16</u>	2.0	(8.9)	3.0	(0.91)	1.5	(6.7)	1.5	(0.46)	---	---	---	---
$\frac{3}{4}$	<u>20</u>	2.5	(11)	3.0	(0.91)	2.0	(8.9)	1.5	(0.46)	---	---	---	---
1	<u>25</u>	5.0	(22)	3.0	(0.91)	4.5	(20)	1.5	(0.46)	---	---	---	---
1 $\frac{1}{4}$	<u>32</u>	10.0	(44.5)	3.0	(0.91)	7.0	(31)	2.0	(0.61)	7.0	(31)	2.0	(0.61)
1 $\frac{1}{2}$	<u>41</u>	12.5	(55.6)	5.0	(1.5)	9.0	(40)	2.0	(0.61)	9.0	(40)	2.0	(0.61)
2	<u>51</u>	15.0	(66.7)	5.0	(1.5)	15.0	(66.7)	2.0	(0.61)	15.0	(66.7)	2.0	(0.61)

## 4.2 Adapter/Transition Fitting Connections

**4.21** Taper pipe threads, except dryseal, shall be in compliance with ANSI/ASME B1.20.1 or ASTM F1498.

**4.22** Dryseal threads shall be in compliance with ANSI/ASME B1.20.3.

**4.23** CPVC solvent weld connections shall comply with ASTM D2846/D2846M or CSA B137.6.

**4.24** Cast copper alloy, wrought copper alloy and copper alloy solder joint connections shall comply with the dimensional requirements of ASME B16.18 or B16.22.

**4.24.25** Transition fittings used for Polybutylene (PB) piping systems are to be used on piping constructed to ASTM D3309 and installed per the fitting manufacturer's instructions. Performance testing shall only be done on the non-PB side of the fitting.

**4.25.26** Other types of connections shall comply with the applicable ANSI or CSA standards.

## 4.3 Marking Instructions

### 4.3.1 Marking of Fittings

Each fitting shall have the following information marked on it where it will be visible after it has been installed:

- (a) Name of manufacturer or trademark
- (b) When a fitting is not suitable for all ~~four (4)~~ materials listed in Section 1.2, it shall be marked ~~as follows~~ for the materials for which they are suitable.

~~— Copper (Cu)~~  
~~— CPVC~~  
~~— PEX~~  
~~— PE-RT~~

When push-fit connectors are used on plumbing devices, the markings are permitted to be on the plumbing device.

## 5.0 Definitions

### **PE-RT**

Acronym for polyethylene of raised temperature resistance. Refers to a type of tubing material defined in ASTM F2769 and CSA B137.18.

### **PP-R**

Acronym for polypropylene random copolymer. Refers to a type of tubing material defined in ASTM F2389 and CSA B137.11

### **PP-RCT**

Acronym for polypropylene random copolymer with modified crystallinity and temperature resistance. Refers to a type of tubing material defined in ASTM F2389 and CSA B137.11

### **Push-Fit Fitting**

A mechanical fitting that joins pipes or tubes and achieves a seal by pushing the mating pipe or tube into the fitting ~~by hand~~.

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Issue 15, Revision 1 (August 2019)

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NSF/ANSI Standard  
for Good Manufacturing Practices –

**Good Manufacturing Practices  
for Cosmetics**

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- 4 Audit requirements**

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- 4.4 Support**

**4.4.1** A master site plan or facility diagram / floor plan shall be on file reflecting the current layout of the building.

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**Good manufacturing practices  
for over-the-counter drugs**

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**5 Audit process**

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**5.4.3 Preparation by the company**

It is expected that the site be prepared for the certification audit, have ready access to appropriate documentation, and provide appropriate staff during the on-site visit.

The site shall ensure that the operations for each product type and product category will be operational for the intended scope of certification. The auditor(s) have the discretion to continue the audit until satisfied the intended scope has been assessed. Where a significant process is conducted seasonally or only occasionally, either 1) the audit should be scheduled for that time, or 2) the general audit is conducted as scheduled and a separate audit is required to assess that process.

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### Good Manufacturing Practices for Cosmetics

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#### 4 Audit requirements

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**4.1.6** Procedures have been established for use of impermeable gloves, hairnets, caps, beard covers, etc. in areas where product contamination could occur. Procedures have been established to prevent contamination from extraneous sources and unhygienic practices. [ISO 22716:2007 3.5.1.3]

**4.1.7** Procedures have been established to prevent eating, drinking, chewing, smoking or the storage of food, drink, or smoking materials or personal medication in the production, control, and storage areas. [ISO 22716:2007 3.5.1.4]

~~**4.1.8** Procedures have been established to prevent eating, drinking, chewing, smoking or the storage of food, drink, or smoking materials or personal medication in the production, control, and storage areas.~~  
Procedures have been established to ensure medical conditions, open lesions, or infected wounds are reported to a supervisor and ensure that personnel does not pose a threat of contamination in manufacturing, processing, packaging, and storage of raw materials, in-process materials, finished product, and packaging. [ISO 22716:2007 3.5.1.4]

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## NSF/ANSI Standard for Good Manufacturing Practices –

### Good Manufacturing Practices for Cosmetics

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#### 5 Audit process

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##### 5.4.3 Preparation by the company

It is expected that the site be prepared for the certification audit, have ready access to appropriate documentation, and provide appropriate staff during the on-site visit.

The site shall ensure that the operations for each product type and product category will be operational for the intended scope of certification. The auditor(s) have the discretion to continue the audit until satisfied the intended scope has been assessed. Where a significant process is conducted seasonally or only occasionally, either 1) the audit should be scheduled for that time, or 2) the general audit is conducted as scheduled and a separate audit is required to assess that process.

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**4 Audit requirements**

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~~4.5.41 On-line control equipment is checked, verified or calibrated, or both, according to a defined program.~~ Procedures and program shall be established maintaining and calibrating equipment to include online controls. [ISO 22716:2007 7.3.5]

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**5 Audit process**

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**5.4.3 Preparation by the company**

It is expected that the site be prepared for the certification audit, have ready access to appropriate documentation, and provide appropriate staff during the on-site visit.

The site shall ensure that the operations for each product type and product category will be operational for the intended scope of certification. The auditor(s) have the discretion to continue the audit until satisfied the intended scope has been assessed. Where a significant process is conducted seasonally or only occasionally, either 1) the audit should be scheduled for that time, or 2) the general audit is conducted as scheduled and a separate audit is required to assess that process.

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### Good manufacturing practices for cosmetics

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#### 4 Audit requirements

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~~4.6.10 Procedures have been established for the cleaning and sanitization of all utensils and equipment. Cleaning validation studies have been completed for product contact parts and equipment. [21 CFR § 211.67]~~ Procedures have been established for cleaning and sanitization, including verification and documentation thereof, of all utensils and equipment. [ISO 22716:2007 5.3.1]

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for Good Manufacturing Practices –

## Good manufacturing practices for cosmetics

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### 4 Audit requirements

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4.6.19 Procedures established for QC laboratory operations shall include OOS procedures. requirements.  
[ISO 22716:2007 9.3]

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## BSR/UL 144, Standard for Safety for LP-Gas Regulators

### 1. Revision of requirement to allow hoses on either the inlet or outlet of the regulator.

13.1 An integral hose assembly on ~~the outlet of~~ a regulator shall comply with the applicable construction and performance requirements in the Standard for Pigtails and Flexible Hose Connectors for LP-Gas, [UL 569](#).

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**BSR/UL 854, Standard for Safety for Service-Entrance Cable****PROPOSALS****Clarification of Requirements, Revised Table 18.1**

Note from the STP Project Manager: For brevity only the affected portions of Table 18.1 are shown, the table title and the column headers.

**Table 18.1**

**Smallest size of ~~bare copper~~ grounded conductor, ~~or insulated copper or aluminum or copper-clad aluminum~~ grounding conductor in coverless multiple-conductor Type USE-2 and USE cables**

Size of each insulated conductor		Size of grounded conductor	
Copper	Aluminum or copper-clad aluminum	Round cable with 1 insulated conductor <del>consisting of a single-conductor Type USE or USE-2 cable</del> over which a bare copper grounded conductor is distributed helically (bare <u>grounded</u> conductor is not to be used parallel to or cabled with the insulated conductor)	Flat cable with 2 insulated conductors <del>consisting of single-conductor Type USE or USE-2 cables</del> laid parallel with or without a bare <u>or</u> metal-coated copper grounded conductor that is distributed helically (bare <u>grounded</u> conductor is not to be used in valley or valleys) or Round cable with 2 or more insulated conductors <del>consisting of single-conductor Type USE or USE-2 Cables</del> that are cabled with or without a bare <u>or</u> metal-coated copper grounded conductor <del>or insulated copper or aluminum or copper-clad aluminum grounding conductor</del> that is cabled in one or several sections or is distributed helically; <u>or insulated copper or insulated aluminum grounded conductor that is cabled in on or several sections.</u>

**Sunlight Resistance Requirements, Revised 30.1.2 and 30.3**

30.1.2 The insulation of all ~~unjacketed~~ ~~jacketed~~ cables shall comply with the Sunlight Resistant test described in 30.3.1 after 300 hours of xenon-arc exposure, unless the cable is marked "Sunlight Resistant" in accordance with 40.7, in which case the insulation shall comply with the Sunlight Resistant test described in 30.3.1 after 720 hours of xenon-arc exposure.

**30.3 Test method**

30.3.1 The Sunlight Resistance tests shall be conducted in accordance with the test Sunlight Resistance, as described in the Standard for Wire and Cable Test Methods, UL 2556. The average tensile strength and ultimate elongation retained after 300 h of xenon-arc exposure shall not be less than 85 percent of the average tensile strength and ultimate elongation of unconditioned specimens. The average tensile strength and ultimate elongation retained after 720 h of xenon-arc exposure shall not be less than 80 percent of the average tensile strength and ultimate elongation of unconditioned specimens. ~~The ratio of the average tensile strength and ultimate elongation of five conditioned specimens to the average tensile strength and ultimate elongation of five unconditioned specimens of the same individual jacket or~~



~~insulation shall be 0.85 or more for those samples subjected to a 300-hour exposure. The ratio of the average tensile strength and ultimate elongation of five conditioned specimens to the average tensile strength and ultimate elongation of five unconditioned specimens of the same individual jacket or insulation shall be 0.80 or more for those samples subjected to a 720-hour exposure.~~

30.3.2 Cable that does not comply with the requirement in 30.3.1 for 85 percent or better retention of tensile strength and ultimate elongation after 300 h of xenon-arc exposure is eligible to have its performance reevaluated on the basis of the results of testing after 100, 300, and 500 h of xenon-arc exposure. Five specimens are to be conditioned for each of the three indicated lengths of time. The cable is appropriate for use when the results of this testing comply with each of the following requirements:

- a) The average tensile strength and ultimate elongation retained after 100 h of xenon-arc exposure shall not be less than 65 percent of the average tensile strength and ultimate elongation of unconditioned specimens.
- b) The rate of decrease of the percent retention of average tensile strength and ultimate elongation from 100 h to 300 h of xenon-arc exposure shall not exceed 15.
- c) The rate of decrease of the percent retention of average tensile strength and ultimate elongation from 300 to 500 h of xenon-arc exposure shall not exceed 5.

30.2.2 With the exception of submersible pump cable, the jacket on all cables marked sunlight resistant in accordance with ~~40.8~~ 40.7 shall comply with the sunlight resistance test described in 30.3.1 after 300 hours of xenon-arc exposure.

~~30.4 Cable that does not comply with the requirements in 30.3.2 for 85 percent or better retention of tensile strength and ultimate elongation after 300 h of xenon-arc exposure is eligible to have its performance reevaluated on the basis of the results of testing after 100, 300, and 500 h of carbon-arc exposure and xenon-arc exposure. Five specimens are to be conditioned for each of the three indicated lengths of time. The cable is appropriate for use when the results of this testing comply with each of the following requirements:~~

- a) ~~The average tensile strength and ultimate elongation retained after 100 h of carbon-arc exposure or xenon-arc exposure shall not be less than 65 percent of the average tensile strength and ultimate elongation of unconditioned specimens.~~
- b) ~~The rate of decrease of the percent retention of average tensile strength and ultimate elongation from 100 h to 300 h of carbon-arc exposure or xenon-arc exposure shall not exceed 15.~~
- c) ~~The rate of decrease of the percent retention of average tensile strength and ultimate elongation from 300 to 500 h of carbon-arc exposure or xenon-arc exposure shall not exceed 5.~~

#### **Editorial Correction to Cross-References in 14.1**

14.1 The insulation in Type USE and USE-2 cables shall be thermoset, except for the HDPE portion of HDPE-over-XL insulation in some single-conductor Type USE cable. See 14.3 regarding materials. The insulation and jacket in single-conductor Type USE and USE-2 cables shall comply with Tables 14.1 and 14.2 (see 14.3 regarding materials). Each insulated conductor in the submersible-pump cables that are described in Section 19, and in the coverless multiple-conductor Type USE and USE-2 cables that are described in Section 18, shall be a single-conductor Type USE or USE-2 cable. Except for the horizontal flame test in some cases (see 40.1), and the sunlight-resistance tests required in 30.1 and 30.3.1, the insulated conductors in a Type SE cable shall be Type THHN, Type THWN, or Type THWN-2 as described in the Standard for Thermoplastic-Insulated Wires and Cables, UL 83, or Type XHHW, Type

XHHW-2, Type RHW, Type RHW-2, Type RHH OR RHW, or Type RHH OR RHW-2 as described in the Standard for Thermoset-Insulated Wires and Cables, UL 44; the insulated conductors in a jacketed multiple-conductor Type USE cable shall be Type XHHW, Type XHHW-2, Type RHW, Type RHW-2, Type RHH OR RHW, or Type RHH OR RHW-2 as described in the Standard for Thermoset-Insulated Wires and Cables, UL 44; and the insulated conductors in a jacketed multiple-conductor Type USE-2 cable shall be Type XHHW-2, Type RHW-2, or Type RHH OR RHW-2 as described in the Standard for Thermoset-Insulated Wires and Cables, UL 44. "USE" shall not be surface

## BSR/UL 1238, Standard for Safety for Control Equipment for Use with Flammable Liquid Dispensing Devices

### 1. Addition of reference to UL 62368-1 as an alternative to UL 60950-1

#### PROPOSAL

21.3 A fuse or circuit protective device used to limit the power as specified in 21.2 shall be rated or set at not more than 3.2 amperes for a circuit operating between 15 and 30 volts and at not more than 5.0 amperes for a 0 - 15 volt circuit. When an impedance or regulating network is used to limit the current, it shall be such value or construction as to limit the current under short-circuit conditions to not more than 8.0 amperes measured after 1 minute.

*Exception: A power supply that complies with any of the following is considered to comply with this requirement without test:*

- a) *Power supplies evaluated to the Standard for Information Technology Equipment - Safety - Part 1: General Requirements, UL 60950-1, or the Standard for Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements, UL 62368-1, that are SELV, Non-energy hazardous and provided with a fused output in accordance with the fuse values given in 21.3;*
- b) *Power supplies evaluated to the Standard for Class 2 Power Units, UL 1310, that are marked as Class 2, Limited Power Source, or LPS, are considered to comply without test.*
- c) *Power supplies evaluated to the Standard for Electrical Equipment for Measurement, Control, and Laboratory Use; Part 1: General Requirements, UL 61010-1.*

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## APPENDIX A

### Standards for Components

Standards under which components of the products covered by this standard are evaluated include the following:

Title of Standard - UL Standard Designation

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Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements, UL 62368-1

Ballasts, Fluorescent-Lamp - UL 935

Cable and Cable Fittings for Use in Hazardous (Classified) Locations - UL 2225

Electric Heaters for Use in Hazardous (Classified) Locations - UL 823

Electric Signs - UL 48

Electrical Motors and Generators for Use in Hazardous (Classified) Locations - UL 674

Electrical Resistance Heat Tracing for Commercial and Industrial Applications - UL 515

Electrically Operated Valves - UL 429

Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Petroleum Products and LP-Gas - UL 567

Enclosures for Electrical Equipment, Non-Environmental Considerations - UL 50

Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations - UL 1203

Information Technology Equipment - Safety - Part 1: General Requirements - UL 60950-1

Intrinsically Safe and Associated Apparatus and Associated Apparatus for Use in Class I, II, and III, Div.1, Hazardous (Classified) Locations - UL 913

Luminaires for Use in Hazardous (Classified) Locations - UL 844

Meters for Flammable and Combustible Liquids and LP-Gas - UL 25

Organic Coatings for Steel Enclosures for Outdoor Use Electrical Equipment - UL 1332

Power-Operated Dispensing Devices for Petroleum Products - UL 87

Power-Operated Pumps for Petroleum Dispensing Devices - UL 79

Software in Programmable Components - UL 1998

Tests for Safety-Related Controls Employing Solid-State Devices - UL 991

Valves for Flammable Liquids - UL 842

Wire Connectors - UL 486A-486B

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## BSR/UL 1558, Standard for Safety for Metal-Enclosed Low-Voltage Power Circuit Breaker Switchgear

### 1. Addition of Requirements to Section 19.6 for the Allowance for Emergency Use Switchgear

19.6.2 A switchgear section may be marked "Emergency Transfer Switch Section," or equivalent when it contains an automatic transfer switch marked for use in emergency systems, under the following conditions:

- a) The transfer switch shall be located in a section having dimensions no smaller than those specified in the installation instructions of the transfer switch.
- b) Overcurrent protection shall be provided for control wiring that is intended to leave the switchgear section to supply a remote test switch or pilot light.
- c) The transfer switch and emergency circuits are located in a separate vertical switchgear section that does not contain any wiring associated with non-emergency loads other than the normal source connection to the transfer switch. This separate vertical section may share a common bus with other vertical sections when the switchgear complies with one of the following:
  - 1) The switchgear does not contain overcurrent protection between the emergency source and the common bus or
  - 2) The switchgear contains overcurrent protection between the emergency source and the common bus, ~~and this overcurrent protection is~~ can be selectively coordinated with all overcurrent devices located within the switchgear and connected on the load side of the emergency source overcurrent device that serve emergency loads, and the switchgear is marked "Emergency system overcurrent devices must be selectively coordinated in accordance with Article 700 of the NEC".

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