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## American National Standards

### Call for comment on proposals listed

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

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

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

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

\* Standard for consumer products

## Comment Deadline: July 19, 2020

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

1791 Tullie Circle NE, Atlanta, GA 30329 ph: (678) 539-2114 [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE Addendum c to BSR/ASHRAE Standard 15-202x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2019)

This addendum proposes changes to allow the use of equipment using small amounts of non-A1 refrigerants, only if they are listed to appropriate product safety standards. The proposal is consistent with research findings, and the published requirements of product safety standards such as UL 484 and UL 60335-2-40. One clarifying change from comments received on the first publication public review draft is proposed by the committee.

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

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

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 ph: (678) 539-1125 [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum b to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

Demand Controlled Ventilation (DCV) should be required when cost-effective for occupied spaces considering the required outside air for ventilation required based on number of people in the space, varying space sizes, use of energy recovery equipment, and climate zone. Based on comments to the first public review, climate zones 0A and 0B were analyzed and the climate zone grouping of requirements was reviewed. Based on this review and additional analysis, Climate Zone 0A was moved to a more stringent requirement associated with climate zones 0B and 1B. Climate Zone 1A was separated from Climate Zones 3B and 4B to provide more appropriate floor area thresholds.

[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 <http://www.ashrae.org/standards-research--technology/public-review-drafts>

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 ph: (678) 539-1125 [www.ashrae.org](http://www.ashrae.org)

#### **Addenda**

BSR/ASHRAE/IES Addendum d to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This addendum revises garage fan ventilation requirements in Standard 90.1.

[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 <http://www.ashrae.org/standards-research--technology/public-review-drafts>

## Comment Deadline: July 19, 2020

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 ph: (678) 539-1125 [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE/IES Addendum i to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This addendum proposes a change to Section G3.1.2.10 Exhaust Air Heat Recovery to correct a mistake that was made when ASHRAE 90.1-2013 addendum bm was published. ASHRAE Standard 90.1 does not require systems serving laboratories to comply with prescriptive energy recovery requirements when laboratory exhaust is variable volume. This requirement was in 90.1-2004 and remains relatively unchanged in the current version of the Standard. Prior to the publication of addendum bm, Appendix G rules followed this requirement. The current wording in Appendix G would require a proposed laboratory design with variable flow exhaust and energy recovery to model both heat recovery and variable exhaust in the baseline HVAC system. The proposed change aligns the baseline requirements of Appendix G with the requirements of laboratory systems from the 2004 version of 90.1.

[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 <http://www.ashrae.org/standards-research--technology/public-review-drafts>

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 ph: (678) 539-1125 [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE/IES Addendum k to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2019)

This addendum adjusts the Section 11 budget building fan power to avoid a fan power credit for cases where the proposed building includes heat recovery and the budget building does not include heat recovery.

[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 <http://www.ashrae.org/standards-research--technology/public-review-drafts>

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### Revision

BSR/ASME B16.1-202x, Gray Iron Pipe Flanges and Flanged Fittings - Classes 25, 125, and 250 (revision of ANSI/ASME B16.1-2015)

This Standard covers Classes 25, 125, and 250 Gray Iron Pipe Flanges and Flanged Fittings. It includes (a) pressure-temperature ratings, (b) sizes and method of designating openings of reducing fittings, (c) marking, (d) materials, (e) dimensions and tolerances, (f) bolting and gaskets, and (g) pressure testing.

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

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

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 ph: (734) 827-5643 [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF/CAN 60-202x (i88r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2019)

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

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

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

## Comment Deadline: July 19, 2020

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062 ph: (847) 664-3198 <https://ul.org/>

#### **Revision**

BSR/UL 101-202x, Standard for Safety for Leakage Current for Utilization Equipment (revision of ANSI/UL 101-2019)

(1) Proposed revisions to Paragraph 1.1 to include foreseeable use and failure conditions.

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

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)

171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada ph: (613) 368-4437 <https://ul.org/>

#### **Revision**

BSR/UL 263-202x, Standard for Safety for Fire Tests of Building Construction and Materials (revision of ANSI/UL 263-2018)

Correction to relocate requirements inadvertently misplaced from the October 6, 2017 proposal bulletin, and to reinstate the requirements that were incorrectly replaced as a result.

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

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)

333 Pfingsten Road, Northbrook, IL 60062-2096 ph: (847) 664-2023 <https://ul.org/>

#### **Revision**

BSR/UL 1278-202x, Standard for Safety for Movable and Wall- or Ceiling-Hung Electric Room Heaters (revision of ANSI/UL 1278-2018)

This proposal for UL 1278 covers: (1) Smart enabled heater exceptions and (2) Withdrawal and replacement of 508C with UL 618005-1.

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

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)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 ph: (919) 549-0956 <https://ul.org/>

#### **Revision**

BSR/UL 1479-202x, Standard for Safety for Fire Tests of Penetration Firestops (revision of ANSI/UL 1479-2015)

(1) Environmental exposure tests for intumescent firestop device.

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

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: July 19, 2020

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 ph: (847) 664-2023 <https://ul.org/>

#### Revision

BSR/UL 8750-202x, Standard for Safety for Light Emitting Diode (LED) Equipment for Use in Lighting Products (revision of ANSI/UL 8750-2020)

This proposal for UL 8750 covers: (1) Add criteria for enclosure openings; (2) Add grounded conductor color options; (3) Correction to bonding conductor test set-up; and (4) Add supplement SK to facilitate evaluation of Double-Insulated LED equipment using current requirements of UL 2097.

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

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: August 3, 2020

### AIAA (American Institute of Aeronautics and Astronautics)

12700 Sunrise Valley Drive, Suite 200, Reston, VA 20191-5807 ph: (703) 264-7546 [www.aiaa.org](http://www.aiaa.org)

#### New Standard

BSR/AIAA S-141-202x, Standard for Code Verification in Computational Fluid Dynamics (new standard)

This Standard is written for developers and users of CFD codes, their managers, and those who make decisions based on results from CFD simulations. The intention of this Standard is to provide the relevant definitions, relevant theoretical background, relevant computational procedures, and recommended best practices for code verification.

Single copy price: Free (AIAA Members); \$65.00 (Non-members)

Obtain an electronic copy from: [hillaryw@aiaa.org](mailto:hillaryw@aiaa.org)

Order from: Hillary Woehrle, (703) 264-7546, [hillaryw@aiaa.org](mailto:hillaryw@aiaa.org)

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

### ASC X9 (Accredited Standards Committee X9, Incorporated)

275 West Street, Suite 107, Annapolis, MD 21401 ph: (410) 267-7707 [www.x9.org](http://www.x9.org)

#### Revision

BSR/X9.112-2-202x, Wireless Management and Published Security - Part 2: POS and ATM (revision of ANSI X9.112-2-2014)

Wireless technologies have rapidly emerged as significant components of networks. The ease and speed of deployment, as well as inexpensive transmission rates, makes them ideal for deploying new systems. Whereas installations used to be delayed several months because of complicated landline connections, a wireless deployment can happen the same day an ATM or POS terminal is ordered. Greater wireless coverage, greater reliability, higher transfer speeds, and improved equipment quality has only increased the likelihood that ATMs with wireless are a preferred option.

Single copy price: \$100.00

Obtain an electronic copy from: [ambria.frazier@x9.org](mailto:ambria.frazier@x9.org)

Order from: Ambria Frazier, (410) 267-7707, [ambria.frazier@x9.org](mailto:ambria.frazier@x9.org)

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

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### Revision

BSR/ASME B31.8-202x, Gas Transmission and Distribution Piping Systems (revision of ANSI/ASME B31.8-2018)

This Code covers the design, fabrication, installation, inspection, and testing of pipeline facilities used for the transportation of gas. This Code also covers safety aspects of the operation and maintenance of those facilities. This Code is concerned only with certain safety aspects of liquefied petroleum gases when they are vaporized and used as gaseous fuels. All of the requirements of NFPA 58 and NFPA 59 and of this Code concerning design, construction, and operation and maintenance of piping facilities shall apply to piping systems handling butane, propane, or mixtures of these gases.

Single copy price: Free

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Paul Stumpf, (212) 591-8536, [stumpfp@asme.org](mailto:stumpfp@asme.org)

## Comment Deadline: August 3, 2020

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### Revision

BSR/ASME B31.8S-202x, Managing System Integrity of Gas Pipelines (revision of ANSI/ASME B31.8S-2018)

This Code applies to onshore pipeline systems constructed with ferrous materials and that transport gas. The principles and processes embodied in integrity management are applicable to all pipeline systems. This Code is specifically designed to provide the operator with the information necessary to develop and implement an effective integrity management program utilizing proven industry practices and processes. The processes and approaches described within this Code are applicable to the entire pipeline.

Single copy price: Free

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Paul Stumpf, (212) 591-8536, [stumpfp@asme.org](mailto:stumpfp@asme.org)

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### Revision

BSR/ASME NOG-1-202x, Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder) (revision of ANSI/ASME NOG-1-2015)

This Standard covers electric overhead and gantry multiple girder cranes with top running bridge and trolley used at nuclear facilities and components of cranes at nuclear facilities.

Single copy price: Free

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Jihoon Oh, (212) 591-8544, [ohj@asme.org](mailto:ohj@asme.org)

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

520 N. Northwest Highway, Park Ridge, IL 60068 ph: (847) 768-3411 [www.assp.org](http://www.assp.org)

#### Revision

BSR/ASSP A10.33-202x, Safety & Health Program Requirements for Multi-Employer Projects (revision and redesignation of ANSI/ASSE A10.33-2011 (R2016))

This standard sets forth the minimum elements and activities of a program that defines the duties and responsibilities of construction employers working on a construction project where multiple employers are engaged in the common undertaking to complete a construction project.

Single copy price: \$100.00

Obtain an electronic copy from: Tim Fisher at [TFisher@ASSP.Org](mailto:TFisher@ASSP.Org)

Order from: Tim Fisher, (847) 768-3411, [tfisher@assp.org](mailto:tfisher@assp.org)

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

### ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 ph: (610) 832-9744 [www.astm.org](http://www.astm.org)

#### New Standard

BSR/ASTM F1533-202x, Specification for Deformed Polyethylene (PE) Liner (new standard)

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

Single copy price: \$45.00

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

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

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

## Comment Deadline: August 3, 2020

### **ASTM (ASTM International)**

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 ph: (610) 832-9744 [www.astm.org](http://www.astm.org)

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

BSR/ASTM F2720-202x, Specification for Glass Fiber Reinforced Polyethylene (PE-GF) Spiral Wound Large Diameter Pipe (new standard)

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

Single copy price: \$45.00

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

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

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

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

7900 Turin Rd., Bldg. 3, Rome, NY 13440 ph: (315) 339-6937 [www.esda.org](http://www.esda.org)

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

BSR/ESD SP3.5-202x, ESD Association Standard Practice for the Protection of Electrostatic Discharge Susceptible Items - Test Methods for Air Assist Bar Ionizers, Soft X-Ray (Photon) Ionizers, Room Ionization Alternatives, and Non-Airflow Alpha Ionizers (new standard)

This document provides measurement techniques, under specified conditions, to determine offset voltage and discharge time for ionizers for qualification and periodic verification tests in production locations. This document does not include measurements of electromagnetic interference (EMI) or uses of ionizers in connection with ammunition, flammables, explosive items, or electrically initiated explosive devices.

Single copy price: \$105.00 (List)/\$75.00 (EOS/ESD Members) [Hard Cover]; \$130.00 (List)/\$100.00 (EOS/ESD Members) [Soft Cover]

Obtain an electronic copy from: [cearl@esda.org](mailto:cearl@esda.org)

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

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

### **ESTA (Entertainment Services and Technology Association)**

630 Ninth Avenue, Suite 609, New York, NY 10036-3748 ph: (212) 244-1505 [www.esta.org](http://www.esta.org)

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

BSR/E1.69-202x, Reporting the Low-End Dimming Performance of Entertainment Luminaires Using LED Sources (new standard)

The standard shall describe a way of showing the end-user or equipment specifier the low-end dimming performance of LED luminaires, when the luminaire output level is set by a control signal varying over the low-end range from 10% to 0%. Right now, there is no way for an equipment specifier to assess the low-end dimming of a luminaire without actually looking at the unit, and then there is no way to tell another person what the specifier saw without using subjective terms. Marketing terms, such as "theatrical quality dimming" or "dims smoothly to black," seem to say something, but have no objective meaning.

Single copy price: Free

Obtain an electronic copy from: [https://tsp.esta.org/tsp/documents/public\\_review\\_docs.php](https://tsp.esta.org/tsp/documents/public_review_docs.php)

Order from: Karl Ruling, (212) 244-1505, [standards@esta.org](mailto:standards@esta.org)

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

## Comment Deadline: August 3, 2020

### FM (FM Approvals)

1151 Boston-Providence Turnpike, Norwood, MA 02062 ph: (781) 255-4813 [www.fmglobal.com](http://www.fmglobal.com)

#### Revision

BSR/FM 4474-202x, Evaluation of Simulated Wind Uplift Resistance of Roof Assemblies Using Static Positive and/or Negative Differential Pressures (revision of ANSI FM 4474-2004 (R2010))

This standard presents a test method for determining and categorizing wind uplift resistance of roof assemblies including the structural deck. The objective of this test is to evaluate the comparative resistance of roof assemblies to positive and/or positive and negative pressures. The test evaluates the deck and roof covers including all components for their method of attachment to each other and to their supports.

Single copy price: Free

Obtain an electronic copy from: [josephine.mahnken@fmaprovals.com](mailto:josephine.mahnken@fmaprovals.com)

Order from: Josephine Mahnken, (781) 255-4813, [josephine.mahnken@fmaprovals.com](mailto:josephine.mahnken@fmaprovals.com)

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

### HI (Hydraulic Institute)

300 Interpace Parkway, Bldg A – 3rd Floor, Parsippany, NJ 07054 ph: (862) 242-5339 [www.pumps.org](http://www.pumps.org)

#### Revision

BSR/HI 3.1-3.5-202x, Rotary Pumps for Nomenclature, Definitions, Application, and Operation (revision of ANSI/HI 3.1-3.5-2015)

This standard applies to industrial/commercial rotary positive-displacement pumps. It includes types and nomenclature; definitions; design and application; and installation, operation, and maintenance. It does not include standards on magnetic drives for sealless pumps nor rotary pumps primarily used for fluid power applications.

Single copy price: \$110.00 (non-members)/\$82.50 (HI Members)

Obtain an electronic copy from: [sdebel@pumps.org](mailto:sdebel@pumps.org)

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

### HI (Hydraulic Institute)

300 Interpace Parkway, Bldg A – 3rd Floor, Parsippany, NJ 07054 ph: (862) 242-5339 [www.pumps.org](http://www.pumps.org)

#### Revision

BSR/HI 9.6.2-202x, Rotodynamic Pumps for Assessment of Applied Nozzle Loads (revision of ANSI/HI 9.6.2-2015)

Pumps designed and constructed in accordance with ASME B73.1, Specification for Horizontal End Suction Centrifugal Pumps for Chemical Process. Magnetic drive pumps designed and constructed in accordance with ASME B73.3, Specification for Sealless Horizontal End Suction Metallic Centrifugal Pumps for Chemical Process, with Class 150 and 300 flanges.

Single copy price: \$80.00 (non-members)/\$60.00 (HI Members)

Obtain an electronic copy from: [sdebel@pumps.org](mailto:sdebel@pumps.org)

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

### HL7 (Health Level Seven)

3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI 48104 ph: (313) 550-2073 [www.hl7.org](http://www.hl7.org)

#### New Standard

BSR/HL7 V26 IG EHD, R1-202x, HL7 Version 2.6 Implementation Guide: Early Hearing Detection and Intervention (EHD), Release 1 (new standard)

This guide will focus on standardizing how newborn hearing screening information is transmitted from a point-of-care device to an interested consumer such as public health.

Single copy price: Free to members and non-members

Obtain an electronic copy from: [Karenvan@HL7.org](mailto:Karenvan@HL7.org)

Order from: Karen Van Hentenryck, (313) 550-2073, [Karenvan@HL7.org](mailto:Karenvan@HL7.org)

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

## Comment Deadline: August 3, 2020

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

5001 East Philadelphia Street, Ontario, CA 91761 ph: (909) 230-5534 <https://www.iapmostandards.org>

#### **Reaffirmation**

BSR/IAPMO S1001.4-2015 (R202x), Energy Production Rating of Solar Heating Collectors (reaffirmation of ANSI/IAPMO S1001.4-2015)

This Standard specifies the procedures used to determine the energy production rating of solar heating collectors. NOTES: (1) The purpose of energy production ratings is to (a) provide a basis for comparing the relative thermal performance of various solar collector technologies when evaluated under the same rating conditions; and (b) help users of solar heating collectors make an informed decision regarding the choice of technology with respect to thermal performance. (2) In this Standard, "solar heating collectors" are referred to as "collectors".

Single copy price: Free

Obtain an electronic copy from: [https://iapmomembership.org/index.php?page=shop.product\\_details&flypage=flypage\\_iapmo.tpl&product\\_id=1551&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=1551&category_id=71&option=com_virtuemart&Itemid=3&redirected=1&Itemid=3)

Order from: Kyle Thompson, (909) 230-5534, [standards@iapmostandards.org](mailto:standards@iapmostandards.org)

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

### ICC (International Code Council)

4051 Flossmoor Road, Country Club Hills, IL 60478 ph: (888) 422-7233 [www.iccsafe.org](http://www.iccsafe.org)

#### **Revision**

BSR/ICC 900-202x, Standard for Solar Water Heating Systems (revision and redesignation of ANSI/ICC 900/SRCC 300-2015)

The objective of this Standard is to establish minimum requirements for the system design, performance evaluation, and installation instructions of solar water heating systems. This Standard establishes a methodology for rating the performance of solar water heating systems based on performance projections and solar collector test data. This Standard is applicable to residential and commercial solar water heating systems intended for use within swimming pool heating, building space heating, and building space cooling and/or water heating systems. It is applicable to both direct and indirect solar water heating systems.

Single copy price: Free

Obtain an electronic copy from: <https://www.iccsafe.org/products-and-services/standards-development/is-stsc/>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [smartin@solar-rating.org](mailto:smartin@solar-rating.org)

### ICC (International Code Council)

4051 Flossmoor Road, Country Club Hills, IL 60478 ph: (888) 422-7233 [www.iccsafe.org](http://www.iccsafe.org)

#### **Revision**

BSR/ICC 901-202x, Standard for Solar Thermal Collectors (revision of ANSI/ICC 901/SRCC 100-2015)

The objective of this Standard is to establish minimum requirements for the system design, construction, performance and testing of liquid and air heating solar thermal collectors, including those containing distributed assembly and integral concentrating components and integral storage and non-separable thermosiphon units. This Standard is applicable to solar collectors intended for use within swimming pool and spa heating, building space heating and cooling, water heating systems, industrial/commercial process heating, and thermal input to electrical power production systems.

Single copy price: Free

Obtain an electronic copy from: <https://www.iccsafe.org/products-and-services/standards-development/is-stsc/>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [smartin@solar-rating.org](mailto:smartin@solar-rating.org)

## Comment Deadline: August 3, 2020

### NECA (National Electrical Contractors Association)

3 Bethesda Metro Center, Suite 1100, Bethesda, MD 20814 ph: (240) 800-5003 [www.neca-neis.org](http://www.neca-neis.org)

#### **New Standard**

BSR/NECA/IESNA 500-202X, Standard for Installing and Maintaining Indoor Commercial Lighting Systems (new standard)

This Standard describes installation and maintenance procedures for permanently installed incandescent, halogen, fluorescent, LED, and high-intensity discharge (HID) lighting systems operating at 1000 Volts or less installed indoors and commonly used in commercial and retail buildings, including, but not necessarily limited to, the following: (1) Recessed lighting systems, such as troffers, downlights, wallwashers, valance lights, and accent lights; (2) Surface-mounted lighting systems, such as surface troffers, wraparounds, surface downlights, monopoints, and decorative fixtures; (3) Suspended lighting systems, such as pendant luminaires, direct, indirect, and uplight systems, and decorative luminaires; (4) Wall-mounted lighting systems, such as sconces or wallpacks; and (5) Track lighting systems. In addition to luminaires, this Standard includes construction materials related to luminaires, including, but not necessarily limited to, lamps, conductors, wiring methods, various special screws and clips, and structural suspension components.

Single copy price: \$25.00 (NECA Members)/\$55.00 (Non-members)

Obtain an electronic copy from: [neis@necanet.org](mailto:neis@necanet.org)

Order from: Lina Jariri, (240) 800-5003, [lina.jariri@necanet.org](mailto:lina.jariri@necanet.org)

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

### NECA (National Electrical Contractors Association)

3 Bethesda Metro Center, Suite 1100, Bethesda, MD 20814 ph: (240) 800-5003 [www.neca-neis.org](http://www.neca-neis.org)

#### **Revision**

BSR/NECA 412-202X, Standard for Installing and Maintaining Photovoltaic (PV) Powers Systems (revision of ANSI/NECA 412-2012)

This Standard describes the application procedures for installing and maintaining photovoltaic (PV) power systems and components.

Single copy price: \$25.00 (NECA Members)/\$55.00 (Non-members)

Obtain an electronic copy from: [neis@necanet.org](mailto:neis@necanet.org)

Order from: Lina Jariri, (240) 800-5003, [lina.jariri@necanet.org](mailto:lina.jariri@necanet.org)

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

### NEMA (ASC C137) (National Electrical Manufacturers Association)

1300 N 17th St Suite 900, Rosslyn, VA 22209 ph: (703) 841-3262 [www.nema.org](http://www.nema.org)

#### **New Standard**

BSR C137.7-202X, Standard for Lighting Systems - Networked Parking Lot Lighting Systems (new standard)

This standard sets forth a minimum set of functionalities required in networked open parking-lot lighting systems. This standard does not apply to covered parking garages. This standard does not apply to system parameters covered by standards developed by other accredited bodies. Such parameters include lighting levels, spectral quality, pole spacing and height, and component efficiency. This standard does not place limitations on lighting or networking technologies. It does not seek to provide component-level interchangeability or interoperability. However, compliance to this standard is likely to ensure the basic functional needs of a user are met for a system within the scope.

Single copy price: \$100.00

Obtain an electronic copy from: [michael.erbesfeld@nema.org](mailto:michael.erbesfeld@nema.org)

Order from: Michael Erbesfeld, (703) 841-3262, [Michael.Erbesfeld@nema.org](mailto:Michael.Erbesfeld@nema.org)

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

## Comment Deadline: August 3, 2020

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

140 Philips Rd, Exton, PA 19341 ph: (800) 542-5040 [www.scte.org](http://www.scte.org)

#### **Revision**

BSR/SCTE 110-202x, Hybrid Fiber Coax Outside Plant Status Monitoring: Alternative Power Supply to Transponder Interface Bus (PSTIB) for HMS Transponders (revision of ANSI/SCTE 110-2011)

The Power Supply to Transponder Interface Bus (PSTIB) was defined by ANSI/SCTE 25-3. Some applications have been identified that may have under certain conditions a powering requirement which exceeds those defined by HMS 022. This specification will not delete or replace the ANSI/SCTE 25-3 specification but will be a supplement to and will coexist with that document.

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)

## Comment Deadline: August 18, 2020

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### **Reaffirmation**

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

BSR/ASME Y14.43-2011 (R202x), Dimensioning and Tolerancing Principles for Gages and Fixtures (reaffirmation of ANSI/ASME Y14.43-2011)

This Standard presents the design practices for dimensioning and tolerancing of gages and fixtures used for the verification of maximum material condition (MMC) size envelopes and virtual condition boundaries generated by geometric tolerances controlled at MMC, and datum features controlled at maximum material boundary (MMB).

Single copy price: \$110.00

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

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Fredric Constantino, (212) 591-8684, [constantinof@asme.org](mailto:constantinof@asme.org)

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### **Revision**

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

BSR/ASME B31.9-202x, Building Services Piping (revision of ANSI/ASME B31.9-2017)

This Code Section has rules for the piping in industrial, institutional, commercial, and public buildings; and multi-unit residences, which does not require the range of sizes, pressures, and temperatures covered in B31.1. This Code prescribes requirements for the design, materials, fabrication, installation, inspection, examination, and testing of piping systems for building services.

Single copy price: Free

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

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ray Rahaman, [rahamanr@asme.org](mailto:rahamanr@asme.org)

## Comment Deadline: August 18, 2020

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 ph: (212) 591-8489 [www.asme.org](http://www.asme.org)

#### **Withdrawal**

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

ANSI/ASME B32.100-2016, Preferred Metric Sizes for Flat, Round, Square, Rectangular, and Hexagonal Metal Products (withdrawal of ANSI/ASME B32.100-2016)

This Standard established a preferred series of metric thicknesses, widths, and lengths for flat metal products of rectangular cross-section. The thicknesses and widths shown in this Standard are also applicable to base metals that may be coated in later operations. This Standard also establishes a preferred series of metric sizes for round, square, rectangular, and hexagonal metal products.

Single copy price: \$35.00

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

Order from: <https://cstools.asme.org/csconnect/PublicReviewPage.cfm>

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)

### CGA (Compressed Gas Association)

14501 George Carter Way, Suite 103, Chantilly, VA 20151 ph: (703) 788-2728 [www.cganet.com](http://www.cganet.com)

#### **Revision**

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

BSR/CGA P-18-202x, Standard for Bulk Inert Gas Systems (revision of ANSI/CGA P-18-2013)

This standard contains minimum requirements for locating/siting, selecting equipment, installing, starting up, maintaining, and removing bulk inert gas supply systems. Two types of bulk inert gas supply systems are covered in this standard: liquid and gaseous. This standard applies to inert gas supply systems containing any of the following equipment. Not all inert gas systems include all the equipment listed. Inert gas supply systems include: cryogenic storage tank; gas storage vessels (receivers); vaporizers; valves including manual and automatic shutoff valves and check valves; pressure control equipment including regulators and control valves; piping (pipe and tubing); cryogenic pumps; snubbers and pulsation dampeners; and monitoring and control systems including electrical and instrumentation. The bulk inert supply system terminates at the source valve where the gas or liquid supply first enters the supply line.

Single copy price: Free

Obtain an electronic copy from: [kmastromichalis@cganet.com](mailto:kmastromichalis@cganet.com)

Order from: [kmastromichalis@cganet.com](mailto:kmastromichalis@cganet.com)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Kristy Mastromichalis, [kmastromichalis@cganet.com](mailto:kmastromichalis@cganet.com)

### UL (Underwriters Laboratories)

171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada ph: (613) 368-4417 <https://ul.org/>

#### **Revision**

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

BSR/UL 144-202x, Standard for Safety for LP-Gas Regulators (revision of ANSI/UL 144-2019)

The following is being proposed: Joint Standard for Safety for LP-Gas Regulators, Bi-National Standard UL 144, using ANSI/UL 144:2019 and ULC/ORD-C144.

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>

## Comment Deadline: August 18, 2020

### UL (Underwriters Laboratories)

171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada ph: (613) 368-4417 <https://ul.org/>

#### Revision

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

BSR/UL 567-202x, Standard for Emergency Breakaway Fittings, Swivel Connectors, and Pipe-Connection Fittings for Petroleum Products and LP-Gas (revision of ANSI/UL 567-2017)

The following is being proposed: Joint Standard for Emergency Breakaway Fittings, Swivel Connectors, and Pipe-Connection Fittings for Petroleum Products and LP-Gas, Bi-National standard UL/ULC 567, using ANSI/UL 567:2017, CAN/ULC-S634:2016, CAN/ULC-S644:2016, and ULC/ORD-C567.

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>

## 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:

### DSI (Dental Standards Institute, Inc.)

109 Bushaway Road, Suite 100, Wayzata, MN 55391 ph: (762) 290-0004 <https://dentalstandardsinstitute.com/>

BSR/DSI RST1.1-202x, Documentation of the Written and Electronic External Referral of the Dental Patient (new standard)

Inquiries may be directed to Bryan Laskin, (762) 290-0004, [bryan@operadds.com](mailto:bryan@operadds.com)

## Correction

### Duplicate Call-for-Comment Announcement

#### BSR/ABMA 11-2014 (R202x)

A duplicate Call for Comment notice for BSR/ABMA 11-2014 (R202x), Load Ratings and Fatigue Life for Ball Bearings was mistakenly listed in the May 29, 2020 Standards Action.

The initial Call for Comment Deadline of May 22, 2020 stands as the official closing date.

# 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.

---

## **AIAA (American Institute of Aeronautics and Astronautics)**

**Contact:** Hillary Woehrle  
12700 Sunrise Valley Drive, Suite 200  
Reston, VA 20191-5807  
p: (703) 264-7546  
e: hillaryw@aiaa.org

BSR/AIAA S-141-202x, Standard for Code Verification in Computational Fluid Dynamics (new standard)

## **AMCA (Air Movement and Control Association)**

**Contact:** Shruti Kohli-Bhargava  
30 West University Drive  
Arlington Heights, IL 60004-1893  
p: (847) 704-6285  
e: shrutik@amca.org

BSR/AMCA 240-202x, Laboratory Methods of Testing Positive Pressure Ventilators for Aerodynamic Performance Rating (revision of ANSI/AMCA 240-2015)

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

**Contact:** Terrell Henry  
Two Park Avenue, M/S 6-2B  
New York, NY 10016-5990  
p: (212) 591-8489  
e: ansibox@asme.org

BSR/ASME B16.1-202x, Gray Iron Pipe Flanges and Flanged Fittings - Classes 25, 125, and 250 (revision of ANSI/ASME B16.1-2015)

BSR/ASME B31.9-202x, Building Services Piping (revision of ANSI/ASME B31.9-2017)

BSR/ASME NOG-1-202x, Rules for Construction of Overhead and Gantry Cranes (Top Running Bridge, Multiple Girder) (revision of ANSI/ASME NOG-1-2015)

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

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

BSR/ASSP A10.33-202x, Safety & Health Program Requirements for Multi-Employer Projects (revision and redesignation of ANSI/ASSE A10.33-2011 (R2016))

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

**Contact:** Christina Earl  
7900 Turin Rd., Bldg. 3  
Rome, NY 13440  
p: (315) 339-6937  
e: cearl@esda.org

BSR/ESD SP3.5-202x, ESD Association Standard Practice for the Protection of Electrostatic Discharge Susceptible Items - Test Methods for Air Assist Bar Ionizers, Soft X-Ray (Photon) Ionizers, Room Ionization Alternatives, and Non-Airflow Alpha Ionizers (new standard)

## **HI (Hydraulic Institute)**

**Contact:** Susie deBel  
300 Interpace Parkway, Bldg A – 3rd Floor  
Parsippany, NJ 07054  
p: (862) 242-5339  
e: sdebel@pumps.org

BSR/HI 3.1-3.5-202x, Rotary Pumps for Nomenclature, Definitions, Application, and Operation (revision of ANSI/HI 3.1-3.5-2015)

BSR/HI 9.6.2-202x, Rotodynamic Pumps for Assessment of Applied Nozzle Loads (revision of ANSI/HI 9.6.2-2015)

# 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.

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

**Contact:** Lina Jariri  
 3 Bethesda Metro Center, Suite 1100  
 Bethesda, MD 20814  
 p: (240) 800-5003  
 e: [lina.jariri@necanet.org](mailto:lina.jariri@necanet.org)

BSR/NECA 412-202X, Standard for Installing and Maintaining  
 Photovoltaic (PV) Powers Systems (revision of ANSI/NECA 412  
 -2012)

BSR/NECA/IESNA 500-202X, Standard for Installing and  
 Maintaining Indoor Commercial Lighting Systems (new  
 standard)

## **NENA (National Emergency Number Association)**

**Contact:** Delaine Arnold  
 16603 Meadow Cove Street  
 Tampa, FL 33624-1283  
 p: (727) 312-3230  
 e: [darnold@nena.org](mailto:darnold@nena.org)

BSR/NENA STA-041.1-202X, NENA Standard for  
 Telecommunicator Cardiopulmonary Resuscitation (T-CPR)  
 (new standard)

## **NSF (NSF International)**

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

BSR/NSF/CAN 60-202x (i88r1), Drinking Water Treatment  
 Chemicals - Health Effects (revision of ANSI/NSF/CAN 60  
 -2019)

# Call for Members (ANS Consensus Bodies)

## Call for Members

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

#### U.S. Adoption of AAMI/IEC 60601-1-16-2018

AAMI ([www.aami.org](http://www.aami.org)) is actively seeking participation in the following standards development work and in the interest categories specified:

US adoption of **AAMI/IEC 60601-2-16-2018**, Medical electrical equipment - Part 2-16: Particular requirements for basic safety and essential performance of haemodialysis, haemodiafiltration and haemofiltration equipment. Specifies the minimum safety requirements for HAEMODIALYSIS EQUIPMENT. This HAEMODIALYSIS EQUIPMENT is intended for use either by medical staff or for use by the PATIENT or other trained personnel under medical supervision. Includes all ME EQUIPMENT that is intended to deliver a HAEMODIALYSIS, HAEMODIAFILTRATION and HAEMOFILTRATION treatment to a PATIENT, independent of the treatment duration and location. If applicable, applies to the relevant parts of ME EQUIPMENT intended for other extracorporeal blood purification treatments. **Contact:** Cliff Bernier, (703) 253-8263, [cbernier@aami.org](mailto:cbernier@aami.org).

#### U.S. Adoption of AAMI/IEC 60601-2-39-2018

AAMI ([www.aami.org](http://www.aami.org)) is actively seeking participation in the following standards development work and in the interest categories specified:

US adoption of **AAMI/IEC 60601-2-39:2018**, Medical electrical equipment - Part 2-39: Particular requirements for basic safety and essential performance of peritoneal dialysis equipment. Applies to the basic safety and essential performance of peritoneal dialysis ME equipment. Applies to PD equipment intended for use either by medical staff or under the supervision of medical experts, including PD equipment operated by the patient, regardless of whether the PD equipment is used in a hospital or domestic environment. **Contact:** Cliff Bernier, (703) 253-8263, [cbernier@aami.org](mailto:cbernier@aami.org).

## **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 B31.1-2020, Power Piping (revision of ANSI/ASME B31.1-2018):  
6/10/2020

## NSF (NSF International)

### *Revision*

ANSI/NSF 350-2020 (i42r2), Onsite Residential and Commercial Water Reuse  
Treatment Systems (revision of ANSI/NSF 350-2019): 6/8/2020

## TAPPI (Technical Association of the Pulp and Paper Industry)

### *New Standard*

ANSI/TAPPI T 843 om-2020, Fluted edge crush of corrugating medium (rigid  
support method) (new standard): 6/9/2020

### *Reaffirmation*

ANSI/TAPPI T 455 sp-2014 (R2020), Identification of wire side of paper  
(reaffirmation of ANSI/TAPPI T 455 sp-2014): 6/9/2020

ANSI/TAPPI T 845 om-2014 (R2020), Wet pin adhesion of corrugated board  
by selective separation (reaffirmation of ANSI/TAPPI T 845 om-2014):  
6/9/2020

ANSI/TAPPI T 1205 sp-2014 (R2020), Dealing with suspect (outlying) test  
determinations (reaffirmation of ANSI/TAPPI T 1205 sp-2014): 6/9/2020

### *Revision*

ANSI/TAPPI T 804 om-2020, Compression test of fiberboard shipping  
containers (revision of ANSI/TAPPI T 804 om-20102): 6/9/2020

## UL (Underwriters Laboratories)

### *New National Adoption*

ANSI/UL 80079-20-1-2020, Standard for Safety for Explosive Atmospheres -  
Part 20-1: Material Characteristics for Gas and Vapour Classification - Test  
Methods and Data (national adoption with modifications of ISO/IEC 80079  
-20-1): 6/2/2020

### *New Standard*

ANSI/UL 2525-2020, Standard for Two-Way Emergency Communications  
Systems for Rescue Assistance (new standard): 6/10/2020

### *Revision*

ANSI/UL 231-2020, Standard for Safety for Power Outlets (revision of  
ANSI/UL 231-2019): 6/9/2020

# 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.

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## **AISI (American Iron and Steel Institute)**

Contact: Jay Larson, (610) 691-6334, [jl Larson@steel.org](mailto:jl Larson@steel.org)  
3425 Dighton Court, Bethlehem, PA 18020-1335 [www.steel.org](http://www.steel.org)

### ***New Standard***

BSR/AISI S924-202x, Test Standard for Determining the Effective Flexural Stiffness of Composite Members (new standard)

Stakeholders: Cold-Formed Steel industry.

Project Need: This test standard is used by manufacturers and researchers in cold-formed steel design and analysis. This test standard provides the test procedure for determining the effective flexural stiffness of composite members made with cold-formed steel and conventional normalweight or lightweight concrete.

## **AMCA (Air Movement and Control Association)**

Contact: Shruti Kohli-Bhargava, (847) 704-6285, [shrutik@amca.org](mailto:shrutik@amca.org)  
30 West University Drive, Arlington Heights, IL 60004-1893 [www.amca.org](http://www.amca.org)

### ***Revision***

BSR/AMCA 240-202x, Laboratory Methods of Testing Positive Pressure Ventilators for Aerodynamic Performance Rating (revision of ANSI/AMCA 240-2015)

Stakeholders: Manufacturers, fire-fighting industry, fan testing labs, product consumers, regulatory bodies.

Project Need: This project is needed to complete the review of the Standard in accordance with our procedures. This standard establishes a uniform method of laboratory testing for the determination of the aerodynamic performance of a positive pressure ventilator (PPV) in terms of airflow rate, pressure, air density, and rotational speed, for performance rating or guarantee purposes.

**HL7 (Health Level Seven)**

Contact: Karen Van Hentenryck, (313) 550-2073, Karenvan@HL7.org  
 3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI 48104 www.hl7.org

**New Standard**

BSR/HL7 STD TERM KB, R1-202x, HL7 Guidance: Standardized Terminology Knowledgebase, Release 1 (new standard)

Stakeholders: Quality reporting agencies, regulatory agency, Standards Development Organizations (SDOs).

Project Need: This model is needed to represent machine-processable semantics for standard terminology and local content/concepts. More specifically, the guidance is needed to describe how a 'sanctioned standard terminology knowledge base' can allow integration of standard content (e.g., currently LOINC can't be modeled in a SCT model or published in SCT format).

This project is intended to create a logical model to represent HL7 Codesets, SNOMED, LOINC, RxNorm, and other clinical terminologies.

**NENA (National Emergency Number Association)**

Contact: Delaine Arnold, (727) 312-3230, darnold@nena.org  
 16603 Meadow Cove Street, Tampa, FL 33624-1283 www.nena.org

**New Standard**

BSR/NENA STA-041.1-202X, NENA Standard for Telecommunicator Cardiopulmonary Resuscitation (T-CPR) (new standard)

Stakeholders: Public safety communications users, producers, and general interest.

Project Need: Develop a Standard for Telecommunicator-CPR (T-CPR) training for telecommunicators that includes practical skill assessment directly related to identifying victims experiencing a cardiac event and initiating cardiopulmonary resuscitation instructions to callers within the 9-1-1 center environment. Commensurate with this is the need to recommend that all EMD providers accept a T-CPR certification or a traditional CPR certification as a pre-requisite.

Agencies who provide Emergency Medical Dispatch (EMD) instructions to emergency callers are required to become CPR certified. This certification and training is geared for field (hands-on) CPR and is great knowledge for anyone. However, it does not directly translate to how CPR instructions are given over the telephone. Telecommunicators must extrapolate the knowledge they get from traditional CPR classes and apply that to their job and the way CPR instructions are given in a 9-1-1 center. There is a new trend in the industry to provide a Telecommunicator-CPR (T-CPR) certification for telecommunicators. T-CPR includes training and practical examination of CPR skills that directly relate to providing these instructions remotely (typically via phone). The need is for a standard that identifies the need for training and practical skill assessment needed by telecommunicators performing CPR remotely.

## **OPEI (Outdoor Power Equipment Institute)**

Contact: Brandon Martin, (703) 549-7600, [bmartin@opei.org](mailto:bmartin@opei.org)  
1605 King Street, 3rd Floor, Alexandria, VA 22314 [www.opei.org](http://www.opei.org)

### **Addenda**

BSR/OPEI 60335-2-107-202x Amd.1, Standard for Outdoor Power Equipment - Household and similar electrical appliances - Safety - Part 2-107: Particular requirements for robotic battery powered electrical lawnmowers (addenda to ANSI/OPEI 60335-2-107-2020)

Stakeholders: General interest, users, producers.

Project Need: The principal objective is to align Figure 109 with IEC 60335-2-107, Amd.1 Ed. 2.0, and address any editorial corrections.

This is the first proposed amendment to the ANSI/OPEI 60335-2-107-2020 standard particular requirements for robotic battery powered electrical lawnmowers that aligns the standard to IEC 60335-2-107 Amd.1 Ed. 2.0. This ANSI/OPEI standard specifies safety requirements and their verification for the design and construction of robotic battery powered electrical rotary lawnmowers and their peripherals with the rated voltage of the battery being not more than 75V d.c. This standard deals with all the significant hazards presented by battery powered robotic lawnmowers and their peripherals when they are used as intended and under conditions of misuse which are reasonably foreseeable. This standard also provides requirements for the safety of mains powered charging stations and signal sources for perimeter delimiters.

## **UL (Underwriters Laboratories)**

Contact: Megan Monsen, (847) 664-1292, [megan.monsen@ul.org](mailto:megan.monsen@ul.org)  
333 Pfingsten Road, Northbrook, IL 60062 <https://ul.org/>

### **New National Adoption**

BSR/UL 62986-202x, Standard for Safety for Plugs, Socket-Outlets and Couplers with Arcuate Contacts (national adoption with modifications of IEC 62986)

Stakeholders: Manufacturers of plugs, socket-outlets and couplers with arcuate contacts; Component producers and supply chain of plugs, socket-outlets and couplers with arcuate contacts; Retailers; Consumers Trade Associations; Government; AHJs.

Project Need: The UL 498 standards are being reorganized to improve efficiencies in standards maintenance and support the foundation of adopting IEC 62986 with U.S. deviations. As part of the reorganization approach overall, UL received a request from industry to harmonize with IEC 62986, the Standard for Plugs, Socket-Outlets and Couplers with Arcuate Contacts. Plugs are currently covered under UL 498. Once UL 62986 is adopted, UL will revise the scope of UL 498. This will support regional and international certification programs.

This document sets the general and dimensional interchangeability requirements for plugs, socket-outlets, connectors, and appliance inlets with arcuate contacts of standardized configurations (hereinafter referred to as accessories), with a rated operating voltage not exceeding 600 V AC at a frequency of 50 Hz and 60 Hz and with rated currents of 20 A and 30 A, primarily intended for commercial use indoors, in conditions where the presence of water is negligible. This document applies to accessories for use when the ambient temperature is normally within the range of -25°C to +40°C. These accessories are intended to be connected to cables of copper or copper alloy only. Interchangeability requirements are defined for IP20 accessories. Socket-outlets or appliance inlets incorporated in or fixed to electrical equipment are within the scope of this document.

## UL (Underwriters Laboratories)

Contact: Vickie Hinton, (919) 549-1851, [Vickie.T.Hinton@ul.org](mailto:Vickie.T.Hinton@ul.org)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 <https://ul.org/>

### **New Standard**

BSR/UL 120003-202X, Standard for Safety for Mobile Information and Communication Technology Equipment for Use in Hazardous (Classified) Locations (new standard)

Stakeholders: Manufacturers, supply chain, trade associations, regulators, retailers and consumers for mobile information and communication technology (ICT) equipment (e.g., tablets and smart phones) and related accessories.

Project Need: To obtain national recognition of a standard covering mobile information and communication technology (ICT) equipment (e.g., tablets and smart phones), along with related accessories, for use in Class I and II, Division 1; Class I and II, Division 2; and Class III hazardous (classified) locations. Digitalization in the industrial workplace creates the need for mobile information and communication technology (ICT) equipment (e.g., tablets and smart phones) to be used in all phases of industrial processes including applications in flammable atmospheres in all industries including the oil and gas industry/petrochemical industries within all operations in plants and manufacturing facilities with hazardous (classified) areas. To enable safe operation of mobile information and communication technology (ICT) equipment (e.g., tablets and smart phones) in hazardous classified locations, a standard similar to that which exists for intrinsically safe mobile radios is needed for mobile devices (phones, tablets, and accessories).

This standard covers the particular requirements for construction, testing, markings, and instructions for mobile information and communication technology (ICT) equipment (e.g., tablets and smart phones), along with related accessories, for use in Class I and II, Division 1, Class I and II, Division 2 and Class III hazardous (classified) locations as defined by the National Electrical Code (NEC), ANSI/NFPA 70. This mobile ICT equipment, used within the intended operational parameters specified by the manufacturer, ensures the necessary level of protection for the intended area classification application. For Division 1 applications, the evaluation anticipates faults occurring during operation, and for Division 2 applications, the evaluation anticipates normal operating conditions. Intended operation for this mobile ICT equipment includes indoor and outdoor use.

# 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 (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)**

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 "American National Standards Maintained Under Continuous Maintenance." Questions? [psa@ansi.org](mailto:psa@ansi.org).

# 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).

## AIAA

American Institute of Aeronautics  
and Astronautics  
12700 Sunrise Valley Drive, Suite  
200  
Reston, VA 20191-5807  
Phone: (703) 264-7546  
Web: [www.aiaa.org](http://www.aiaa.org)

## AISI

American Iron and Steel Institute  
3425 Drighton Court  
Bethlehem, PA 18020-1335  
Phone: (610) 691-6334  
Web: [www.steel.org](http://www.steel.org)

## AMCA

Air Movement and Control  
Association  
30 West University Drive  
Arlington Heights, IL 60004-1893  
Phone: (847) 704-6285  
Web: [www.amca.org](http://www.amca.org)

## ASC X9

Accredited Standards Committee  
X9, Incorporated  
275 West Street  
Suite 107  
Annapolis, MD 21401  
Phone: (410) 267-7707  
Web: [www.x9.org](http://www.x9.org)

## ASHRAE

American Society of Heating,  
Refrigerating and Air-  
Conditioning Engineers, Inc.  
1791 Tullie Circle NE  
Atlanta, GA 30329  
Phone: (678) 539-2114  
Web: [www.ashrae.org](http://www.ashrae.org)

## ASME

American Society of Mechanical  
Engineers  
Two Park Avenue  
M/S 6-2B  
New York, NY 10016-5990  
Phone: (212) 591-8489  
Web: [www.asme.org](http://www.asme.org)

## ASSP (Safety)

American Society of Safety  
Professionals  
520 N. Northwest Highway  
Park Ridge, IL 60068  
Phone: (847) 768-3411  
Web: [www.assp.org](http://www.assp.org)

## ASTM

ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428  
-2959  
Phone: (610) 832-9744  
Web: [www.astm.org](http://www.astm.org)

## CGA

Compressed Gas Association  
14501 George Carter Way  
Suite 103  
Chantilly, VA 20151  
Phone: (703) 788-2728  
Web: [www.cganet.com](http://www.cganet.com)

## EOS/ESD

ESD Association, Inc.  
7900 Turin Rd., Bldg. 3  
Rome, NY 13440  
Phone: (315) 339-6937  
Web: [www.esda.org](http://www.esda.org)

## ESTA

Entertainment Services and  
Technology Association  
630 Ninth Avenue  
Suite 609  
New York, NY 10036-3748  
Phone: (212) 244-1505  
Web: [www.esta.org](http://www.esta.org)

## FM

FM Approvals  
1151 Boston-Providence Turnpike  
Norwood, MA 02062  
Phone: (781) 255-4813  
Web: [www.fmglobal.com](http://www.fmglobal.com)

## HI

Hydraulic Institute  
300 Interpace Parkway  
Bldg A – 3rd Floor  
Parsippany, NJ 07054  
Phone: (862) 242-5339  
Web: [www.pumps.org](http://www.pumps.org)

## HL7

Health Level Seven  
3300 Washtenaw Avenue  
Suite 227  
Ann Arbor, MI 48104  
Phone: (313) 550-2073  
Web: [www.hl7.org](http://www.hl7.org)

## IAPMO (Z)

International Association of  
Plumbing & Mechanical Officials  
5001 East Philadelphia Street  
Ontario, CA 91761  
Phone: (909) 230-5534  
Web: <https://www.iapmostandards.org>

**ICC**

International Code Council  
4051 Flossmoor Road  
Country Club Hills, IL 60478  
Phone: (888) 422-7233  
Web: [www.iccsafe.org](http://www.iccsafe.org)

**NECA**

National Electrical Contractors  
Association  
3 Bethesda Metro Center  
Suite 1100  
Bethesda, MD 20814  
Phone: (240) 800-5003  
Web: [www.neca-neis.org](http://www.neca-neis.org)

**NEMA (ASC C137)**

National Electrical Manufacturers  
Association  
1300 N 17th St Suite 900  
Rosslyn, VA 22209  
Phone: (703) 841-3262  
Web: [www.nema.org](http://www.nema.org)

**NENA**

National Emergency Number  
Association  
16603 Meadow Cove Street  
Tampa, FL 33624-1283  
Phone: (727) 312-3230  
Web: [www.nena.org](http://www.nena.org)

**NSF**

NSF International  
789 N. Dixboro Road  
Ann Arbor, MI 48105-9723  
Phone: (734) 827-5643  
Web: [www.nsf.org](http://www.nsf.org)

**OPEI**

Outdoor Power Equipment  
Institute  
1605 King Street  
3rd Floor  
Alexandria, VA 22314  
Phone: (703) 549-7600  
Web: [www.opei.org](http://www.opei.org)

**SCTE**

Society of Cable  
Telecommunications Engineers  
140 Philips Rd  
Exton, PA 19341  
Phone: (800) 542-5040  
Web: [www.scte.org](http://www.scte.org)

**TAPPI**

Technical Association of the Pulp  
and Paper Industry  
15 Technology Parkway South  
Suite 115  
Peachtree Corners, GA 30092  
Phone: (770) 209-7278  
Web: [www.tappi.org](http://www.tappi.org)

**UL**

Underwriters Laboratories  
333 Pfingsten Road  
Northbrook, IL 60062  
Phone: (847) 664-1292  
Web: <https://ul.org/>

**ExSC\_066\_2020**  
**June 19, 2020 Standards Action**

**Proposed Revision to the *ANSI Essential Requirements***  
**([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements))**

The following proposed revision to section 3.2 *Commercial terms and conditions* of the *ANSI Essential Requirements* ([www.ansi.org/essentialrequirements](http://www.ansi.org/essentialrequirements)) is an updated proposal that replaces two previous proposals (ExSC\_033\_2019 and ExSC\_096\_2019) which were announced for public comment in 2019. It addresses public comments raised in connection with the prior 2019 proposed revisions and is intended to clarify what is and is not allowable within the context of commercial terms and conditions, within an American National Standard (ANS).

The strike-through-underline version below is based on the current text of the 2020 edition of the *ANSI Essential Requirements*.

Public comments received in connection with this proposed revision will be made available to the public, with attribution, in the [ANSI Online public library](#) within a reasonable time of the close of the public comment deadline. The ANSI Executive Standards Council (ExSC) will consider the comments received and provide a written response to commenters.

**Public Comments are due to [psa@ansi.org](mailto:psa@ansi.org) by July 20, 2020**

### **3.2 Commercial terms and conditions**

~~*Provisions involving business relations between buyer and seller such as guarantees, warranties, and other commercial terms and conditions*~~ Except as otherwise permitted by these Essential Requirements, ANS shall not ~~*be included in an American National Standard. The appearance that a standard endorses any particular products, services or companies must be avoided. Therefore, it generally is not acceptable to*~~ include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical, engineering or scientific in nature. Thus, an ANS shall not include contractual requirements (3.2.1); endorse or require the use of proprietary products or services (3.2.2); or endorse or require the use of particular conformity-assessment bodies, testing facilities or training organizations (3.2.3).

#### **3.2.1 Contractual Requirements**

Except as provided below, ANS shall not contain contractual requirements such as those relating to particular products or services, guarantees, warranties, reworks, indemnities, buybacks, price-related terms and other conditions of sale or use.

### **3.2.2 Endorsements of Proprietary Products or Services**

ANS shall not endorse or require the purchase or use of proprietary products or service providers as a condition of implementing the standard. Proprietary in this context means products or services that are the property of an owner and cannot be obtained or recreated without the consent of the owner. For example, an ANS may not endorse or require the purchase or use of brand-name tools or components, licenses, manufacturer lists, service provider lists, or similar material in the text of a standard or in an annex (or the equivalent). Where a sole source exists for essential equipment, or copyrighted materials.<sup>1</sup>

However, for informational purposes, where known sources exist for products or services necessary to comply with or to determine compliance with the standard, ANS, it is permissible, but not obligatory, to supply identify the name and address of the sources in a footnote, an appendix, or informative annex as long as reference to a website. The referenced products or services shall be reasonably available from the referenced sources, the words "'or the equivalent' are" shall be added to the reference, and the reference shall also expressly state that identification of products or services is not an endorsement of those products or services or their suppliers.

### **3.2.3 Conformity Assessment, Testing and Training**

In connection with standards ANS that relate to the determination of whether products or services conform to one or more standards, the process or criteria for determining conformity ~~can~~ may be standardized as long as the description of the process or criteria is limited to technical and engineering or scientific concerns and does not include what would otherwise be a contractual or commercial ~~term~~ terms.

It is permissible for health, safety or environmental protection reasons to include a generic requirement for third-party, i.e., independent, conformity assessment, testing or training. ANS shall not dictate the use or non-use of a particular conformity-assessment body, testing facility or training organization.

However, for informational purposes, where known sources exist for products or services necessary to determine compliance with the ANS, it is permissible, but not obligatory, to identify the name and address of the sources in a footnote, an appendix, or reference to a website. The referenced products or services shall be reasonably available from the referenced sources, the words "or the equivalent" shall be added to the reference, and the reference shall also expressly state that identification of sources is not an endorsement of those sources.

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<sup>1</sup> The term "copyrighted materials" is not intended to include: (a) manufacturers' instruction/safety manuals; or (b) third-party standards, when such documents are incorporated by reference into the text of an ANS for non-commercial technical, or safety-related purposes, as long as such references do not otherwise violate other provisions of the Commercial Terms and Conditions Policy (e.g., they cannot also contain warranties, guarantees and like commercial clauses).



# 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

### CRANES (TC 96)

ISO/DIS 13200, Cranes - Safety signs and hazard pictorials - General principles - 9/4/2020, \$125.00

### DOCUMENT IMAGING APPLICATIONS (TC 171)

ISO/DIS 16684-3, Graphic technology - Extensible metadata platform (XMP) specification - Part 3: JSON-LD serialization of XMP - 9/4/2020, \$62.00

### FINE CERAMICS (TC 206)

ISO/DIS 23737, Fine ceramics (advanced ceramics, advanced technical ceramics) - Wear test methods of fine ceramic thin films under dry and humid conditions - 9/5/2020, \$93.00

ISO/DIS 23738, Fine ceramics (advanced ceramics, advanced technical ceramics) - Measurement method of spectral reflectance of fine ceramics thin films under humid condition - 9/5/2020, \$58.00

### FLUID POWER SYSTEMS (TC 131)

ISO/DIS 6195, Fluid power systems and components - Cylinder-rod wiper-ring housings in reciprocating applications - Dimensions and tolerances - 8/27/2020, \$67.00

### INNOVATION MANAGEMENT (TC 279)

ISO/DIS 56006, Innovation management - Tools and methods for strategic intelligence management - Guidance - 9/3/2020, \$53.00

### MINING (TC 82)

ISO/DIS 21795-1, Mine closure and reclamation planning - Part 1: Requirements - 9/3/2020, \$67.00

ISO/DIS 21795-2, Mine closure and reclamation planning - Part 2: Guidance - 9/3/2020, \$134.00

### OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS (TC 283)

ISO/DIS 45003, Occupational health and safety management - Psychological health and safety at work: Managing psychosocial risks - Guidelines - 9/4/2020, \$82.00

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

ISO/DIS 7432, Glass-reinforced thermosetting plastics (GRP) pipes and fittings - Test methods to prove the design of locked socket-and-spigot joints, including double-socket joints, with elastomeric seals - 8/28/2020, \$67.00

### REFRIGERATION (TC 86)

ISO 817/DAm2.2, Refrigerants - Designation and safety classification - Amendment 2 - 8/2/2020, \$40.00

### ROAD VEHICLES (TC 22)

ISO/DIS 22735, Road vehicles - Test method to evaluate the performance of lane-keeping assistance systems - 8/31/2020, \$82.00

### SOIL QUALITY (TC 190)

ISO/DIS 23646, Soil quality - Determination of organochlorine pesticides by gas chromatography with mass selective detection (GC-MS) and gas chromatography with electron-capture detection (GC-ECD) - 9/4/2020, \$98.00

### SOLID BIOFUELS (TC 238)

ISO/DIS 23343-1, Solid biofuels - Determination of water sorption and its effect on durability of thermally treated biomass fuels - Part 1: Pellets - 8/29/2020, \$53.00

### SOLID MINERAL FUELS (TC 27)

ISO/DIS 728, Coke - Size analysis by sieving - 9/6/2020, FREE

### STEEL (TC 17)

ISO/DIS 14737, Carbon and low alloy cast steels for general applications - 8/31/2020, \$40.00

### TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO/DIS 22867, Forestry and gardening machinery - Vibration test code for portable hand-held machines with internal combustion engine - Vibration at the handles - 9/3/2020, \$98.00

### TRADITIONAL CHINESE MEDICINE (TC 249)

ISO/DIS 23962, Traditional Chinese Medicine - Processed Aconitum camichaelii lateral root - 10/1/2020, \$71.00

**TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)**

ISO/DIS 22741-1, Intelligent transport systems - Roadside modules  
AP-DATEX data interface - Part 1: Overview - 9/3/2020, \$46.00

**TYRES, RIMS AND VALVES (TC 31)**

ISO/DIS 18804, Rims for agricultural, forestry and construction  
machines - 8/30/2020, \$93.00

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

ISO/IEC DIS 39794-16, Information technology - Extensible biometric  
data interchange formats - Part 16: Full body image data -  
8/31/2020, \$185.00

**IEC Standards**

2/2006/CD, IEC 60034-1 ED14: Rotating electrical machines - Part 1:  
Rating and performance, 020/9/4/

17C/752/CDV, IEC 62271-215 Ed. 1: Phase comparator, 020/9/4/

17C/751/CDV, IEC 62271-213 ED1: High-voltage switchgear and  
controlgear - Part 213: Voltage detecting and indicating system,  
020/9/4/

23/907/CD, IEC TR 63044-2 ED1: General requirements for Home and  
Building Electronic Systems (HBES) and Building Automation and  
Control Systems (BACS),

34A/2194/DPAS, IEC PAS 63324 ED1: Zhaga interface specification  
Book 1 and Book 10, 020/8/7/

34A/2196/DPAS, IEC PAS 63329 ED1: Zhaga interface specification  
Book 1 and Book 14, 020/8/7/

34A/2195/DPAS, IEC PAS 63328 ED1: Zhaga interface specification  
Book 1 and Book 12, 020/8/7/

34A/2193/FDIS, IEC 62868-2-2 ED1: Organic Light Emitting Diode  
(OLED) light sources for general lighting - Safety - Part 2-2:  
Particular requirements - Integrated OLED modules, 2020/7/24

34A/2192/FDIS, IEC 62868-2-1 ED1: Organic light emitting diode  
(OLED) light sources for general lighting - Safety - Part 2-1:  
Particular requirements - Semi-integrated OLED modules,  
2020/7/24

34D/1553/CD, IEC 60598-1/FRAG5 ED10: Fragment 5 - Luminaires -  
Part 1: General requirements and tests, 020/9/4/

45A/1340/CD, IEC/IEEE 63160 ED1: Nuclear facilities -  
Instrumentation, control and electrical power systems important to  
safety - Common cause failure, system analysis and diversity,  
020/8/7/

55/1871/CD, IEC 60851-1 ED3: Winding wires - Test methods - Part 1:  
General, 020/8/7/

57/2235/NP, PNW TS 57-2235: IIoT applications in power distribution  
systems management: Architecture and functional requirements,  
020/9/4/

57/2234/FDIS, IEC 62351-6 ED1: Power systems management and  
associated information exchange - Data and communications  
security - Part 6: Security for IEC 61850, 2020/7/24

59F/399(F)/FDIS, 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 dry vacuum  
cleaners, 2020/7/10

65B/1178/FDIS, IEC 62828-4 ED1: Reference conditions and  
procedures for testing industrial and process measurement  
transmitters - Part 4: Specific procedures for level transmitters,  
2020/7/24

65B/1179/FDIS, IEC 62828-5 ED1: Reference conditions and  
procedures for testing industrial and process measurement  
transmitters - Part 5: Specific procedures for flow transmitters,  
2020/7/24

72/1245/NP, PNW 72-1245: Automatic electrical controls - Part 2-XX:  
Particular requirements for current sensing controls, 020/9/4/

82/1755/DTS, IEC TS 63156 ED1: Photovoltaic systems - Power  
conditioners - Energy evaluation method, 020/9/4/

86A/2015/CD, IEC 60794-1-31 ED2: Optical fibre cables - Part 1-31:  
Generic specification - Optical cable elements - Optical fibre ribbon,  
020/9/4/

86B/4311/CD, IEC 61753-131-3 ED2: Fibre optic interconnecting  
devices and passive components - Performance standard - Part 131  
-3: Single-mode mechanical fibre splice for category OP - Outdoor  
Protected environment, 020/9/4/

86B/4312/CD, IEC 62134-1 ED3: Fibre optic interconnecting devices  
and passive components - Fibre optic protective housings - Part 1:  
Generic specification, 020/9/4/

86B/4310/CD, IEC 61753-101-3 ED2: Fibre optic interconnecting  
devices and passive components performance standard - Part 101  
-3: Fibre management systems for Category OP - Outdoor  
Protected environment, 020/9/4/

86B/4309/CD, IEC 61753-051-02 ED1: Fibre optic interconnecting  
devices and passive components - Performance standard - Part 051  
-02: Plug-receptacle style single-mode fibre fixed optical attenuators  
for category C - Controlled environments, 020/9/4/

86C/1673/FDIS, IEC 61290-1-1 ED4: Optical amplifiers - Test methods  
- Part 1-1: Power and gain parameters - Optical spectrum analyzer  
method, 2020/7/24

100/3445A/CD, IEC 61937-11/AMD2 ED1: Amendment 2 - Digital  
audio - Interface for non-linear PCM encoded audio bitstreams  
applying IEC 60958 - Part 11: MPEG-4 AAC and its extensions in  
LATM/LOAS (TA 20), 2020/7/31

105/803/CD, IEC 62282-3-201/AMD1 ED2: Amendment 1 - Fuel cell  
technologies - Part 3-201: Stationary fuel cell power systems -  
Performance test methods for small fuel cell power systems,  
020/9/4/

110/1201/CDV, IEC 62595-2-5 ED1: Display lighting unit - Part 2-5:  
Measurement method for optical quantities of non-planar light  
sources, 020/9/4/

110/1211/CD, IEC 62629-1-2 ED2: 3D display devices - Part 1-2:  
Generic - Terminology and letter symbols, 020/9/4/

116/458/CDV, IEC 62841-2-1/AMD1 ED1: Amendment 1 - Electric  
motor-operated hand-held tools, transportable tools and lawn and  
garden machinery - Safety - Part 2-1: Particular requirements for  
hand-held drills and impact drills, 020/9/4/

127/23/NP, PNW TS 127-23: Low-voltage auxiliary power systems -  
Part 2-3: Design criteria - Low-voltage a.c. auxiliary power systems  
for substations, 020/9/4/

127/21/NP, PNW TS 127-21: Low-voltage auxiliary power systems -  
Part 2-1: Design criteria - General requirements, 020/9/4/

127/20/NP, PNW TS 127-20: Low-voltage auxiliary power systems -  
Part 1-1: Terminology, 020/9/4/

127/22/NP, PNW TS 127-22: Low-voltage auxiliary power systems -  
Part 2-2: Design criteria - Low-voltage d.c. auxiliary power systems  
for substations, 020/9/4/

JTC1-SC41/168/CD, ISO/IEC 30162 ED1: Internet of Things (IoT) -  
Compatibility requirements and model for devices within industrial  
IoT systems, 020/8/7/



# Newly Published ISO & IEC Standards

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

## ISO Standards

### ISO/IEC JTC 1 Technical Reports

[ISO/IEC TR 22981:2020](#), Information technology - Office equipment - Guidelines for the development of an ontology (vocabulary, components and relationships) for office equipment, \$68.00

#### BUILDING CONSTRUCTION (TC 59)

[ISO 19650-5:2020](#), Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling - Part 5: Security-minded approach to information management, \$162.00

#### DENTISTRY (TC 106)

[ISO 22569:2020](#), Dentistry - Multifunction handpieces, \$103.00

#### FINE CERAMICS (TC 206)

[ISO 22459:2020](#), Fine ceramics (advanced ceramics, advanced technical ceramics) - Reinforcement of ceramic composites - Determination of distribution of tensile strength and tensile strain to failure of filaments within a multifilament tow at ambient temperature, \$103.00

#### FLOOR COVERINGS (TC 219)

[ISO 8543:2020](#), Textile floor coverings - Methods for determination of mass, \$68.00

#### FLUID POWER SYSTEMS (TC 131)

[ISO 10100:2020](#), Hydraulic fluid power - Cylinders - Acceptance tests, \$68.00

#### GEOSYNTHETICS (TC 221)

[ISO 22182:2020](#), Geotextiles and geotextile-related products - Determination of index abrasion resistance characteristics under wet conditions for hydraulic applications, \$68.00

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

[ISO 8000-2:2020](#), Data quality - Part 2: Vocabulary, \$45.00

#### LIFTS, ESCALATORS, PASSENGER CONVEYORS (TC 178)

[ISO 8100-32:2020](#), Lifts for the transportation of persons and goods - Part 32: Planning and selection of passenger lifts to be installed in office, hotel and residential buildings, \$185.00

#### MECHANICAL VIBRATION AND SHOCK (TC 108)

[ISO 13373-5:2020](#), Condition monitoring and diagnostics of machines - Vibration condition monitoring - Part 5: Diagnostic techniques for fans and blowers, \$138.00

#### MINING (TC 82)

[ISO 22932-1:2020](#), Mining - Vocabulary - Part 1: Planning and surveying, \$45.00

[ISO 22932-2:2020](#), Mining - Vocabulary - Part 2: Geology, \$45.00

#### NUCLEAR ENERGY (TC 85)

[ISO 20890-1:2020](#), Guidelines for in-service inspections for primary coolant circuit components of light water reactors - Part 1: Mechanized ultrasonic testing, \$162.00

[ISO 20890-2:2020](#), Guidelines for in-service inspections for primary coolant circuit components of light water reactors - Part 2: Magnetic particle and penetrant testing, \$103.00

[ISO 20890-3:2020](#), Guidelines for in-service inspections for primary coolant circuit components of light water reactors - Part 3: Hydrostatic testing, \$68.00

[ISO 20890-4:2020](#), Guidelines for in-service inspections for primary coolant circuit components of light water reactors - Part 4: Visual testing, \$103.00

[ISO 20890-5:2020](#), Guidelines for in-service inspections for primary coolant circuit components of light water reactors - Part 5: Eddy current testing of steam generator heating tubes, \$138.00

#### PAINTS AND VARNISHES (TC 35)

[ISO 22553-8:2020](#), Paints and varnishes - Electro-deposition coatings - Part 8: Electric charge density, \$68.00

#### PLAIN BEARINGS (TC 123)

[ISO 7902-1:2020](#), Hydrodynamic plain journal bearings under steady-state conditions - Circular cylindrical bearings - Part 1: Calculation procedure, \$162.00

[ISO 7902-3:2020](#), Hydrodynamic plain journal bearings under steady-state conditions - Circular cylindrical bearings - Part 3: Permissible operational parameters, \$68.00

[ISO 11687-1:2020](#), Plain bearings - Pedestal plain bearings - Part 1: Pillow blocks, \$103.00

[ISO 11687-2:2020](#), Plain bearings - Pedestal plain bearings - Part 2: Side flange bearings, \$68.00

#### PULLEYS AND BELTS (INCLUDING VEEBELTS) (TC 41)

[ISO 2790:2020](#), Belt drives - V-belts for the automotive industry and corresponding pulleys - Dimensions, \$68.00

[ISO 9981:2020](#), Belt drives - Pulleys and V-ribbed belts for the automotive industry - PK profile: Dimensions, \$68.00

**RUBBER AND RUBBER PRODUCTS (TC 45)**

[ISO 1436:2020](#), Rubber hoses and hose assemblies - Wire-braid-reinforced hydraulic types for oil-based or water-based fluids - Specification, \$103.00

[ISO 6805:2020](#), Rubber hoses and hose assemblies for underground mining - Wire-reinforced hydraulic types for coal mining - Specification, \$45.00

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

[ISO 22987:2020](#), Ships and marine technology - Laboratory test method for skin friction of antifouling paints by rotating drum, \$68.00

**SOIL QUALITY (TC 190)**

[ISO 23266:2020](#), Soil quality - Test for measuring the inhibition of reproduction in oribatid mites (*Oppia nitens*) exposed to contaminants in soil, \$162.00

**STEEL (TC 17)**

[ISO 10893-10/Amd1:2020](#), 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 of ultrasonic test frequency; change of acceptance criteria, \$19.00

[ISO 10893-11/Amd1:2020](#), 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 of ultrasonic test frequency; change of acceptance criteria, \$19.00

**THERMAL INSULATION (TC 163)**

[ISO 16546:2020](#), Thermal insulating products for building applications - Determination of freeze-thaw resistance, \$68.00

**ISO Technical Specifications****PLAIN BEARINGS (TC 123)**

[ISO/TS 31657-2:2020](#), Plain bearings - Hydrodynamic plain journal bearings under steady-state conditions - Part 2: Functions for calculation of multi-lobed journal bearings, \$209.00

[ISO/TS 31657-4:2020](#), Plain bearings - Hydrodynamic plain journal bearings under steady-state conditions - Part 4: Permissible operational parameters for calculation of multi-lobed and tilting pad journal bearings, \$45.00

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

[ISO/IEC 23643:2020](#), Software and systems engineering - Capabilities of software safety and security verification tools, \$162.00

[ISO/IEC 21122-4:2020](#), Information technology - JPEG XS low-latency lightweight image coding system - Part 4: Conformance testing, \$103.00

[ISO/IEC 23008-6:2020](#), Information technology - High efficiency coding and media delivery in heterogeneous environments - Part 6: 3D audio reference software, \$45.00

[ISO/IEC 30107-4:2020](#), Information technology - Biometric presentation attack detection - Part 4: Profile for testing of mobile devices, \$68.00

**IEC Standards****AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT (TC 100)**

[IEC 63181-2 Ed. 1.0 b:2020](#), LCD multi-screen display terminals - Part 2: Measuring methods, \$82.00

**CABLES, WIRES, WAVEGUIDES, R.F. CONNECTORS, AND ACCESSORIES FOR COMMUNICATION AND SIGNALLING (TC 46)**

[IEC 61196-6-5 Ed. 1.0 en:2020](#), Coaxial communication cables - Part 6-5: Detail specification for Type A quad-shield CATV drop cables with screening class A++, \$82.00

**ELECTRIC WELDING (TC 26)**

[IEC 60974-14 Ed. 1.0 b:2018](#), Arc welding equipment - Part 14: Calibration, validation and consistency testing, \$199.00

**ELECTROMECHANICAL COMPONENTS AND MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENTS (TC 48)**

[IEC 60352-4 Ed. 2.0 b:2020](#), Solderless connections - Part 4: Non-accessible insulation displacement (ID) connections - General requirements, test methods and practical guidance, \$281.00

[IEC 61076-3-122 Ed. 1.0 b:2017](#), Connectors for electrical and electronic equipment - Product requirements - Part 3-122: Detail specification for 8-way, shielded, free and fixed connectors for I/O and Gigabit Ethernet applications in harsh environments, \$235.00

**FIBRE OPTICS (TC 86)**

[IEC 62614-1 Ed. 1.0 en:2020](#), Fibre optics - Multimode launch conditions - Part 1: Launch condition requirements for measuring multimode attenuation, \$82.00

**FLAT PANEL DISPLAY DEVICES (TC 110)**

[IEC 60100 Amd.1 Ed. 2.0 b:1969](#), Amendment 1 - Methods for the measurement of direct interelectrode capacitances of electronic tubes and valves, \$12.00

**INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL (TC 65)**

[IEC 62541-13 Ed. 2.0 b:2020](#), OPC Unified Architecture - Part 13: Aggregates, \$375.00

[S+ IEC 62541-13 Ed. 2.0 en:2020 \(Redline version\)](#), OPC Unified Architecture - Part 13: Aggregates, \$488.00

**NUCLEAR INSTRUMENTATION (TC 45)**

[IEC 62963 Ed. 1.0 b:2020](#), Radiation protection instrumentation - X-ray computed tomography (CT) inspection systems of bottled/canned liquids, \$199.00

**OTHER**

[CISPR 16-1-4 Ed. 4.1 b:2020](#), Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements, \$645.00

[CISPR 16-1-4 Amd.1 Ed. 4.0 b:2020](#), Amendment 1 - Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements, \$117.00

## **SAFETY OF HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS (TC 116)**

[IEC 62841-3-7 Ed. 1.0 b:2020](#), Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-7: Particular requirements for transportable wall saws, \$199.00

## **SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)**

[IEC 61701 Ed. 3.0 b:2020](#), Photovoltaic (PV) modules - Salt mist corrosion testing, \$82.00

## **SUPERCONDUCTIVITY (TC 90)**

[IEC 61788-26 Ed. 1.0 b:2020](#), Superconductivity - Part 26: Critical current measurement - DC critical current of RE-Ba-Cu-O composite superconductors, \$199.00

## **WINDING WIRES (TC 55)**

[IEC 60317-0-2 Ed. 4.0 b:2020](#), Specifications for particular types of winding wires - Part 0-2: General requirements - Enamelled rectangular copper wire, \$199.00

[IEC 60317-62 Ed. 2.0 b:2020](#), Specifications for particular types of winding wires - Part 62: Polyester glass-fibre wound, silicone resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 200, \$47.00

[IEC 60317-82 Ed. 1.0 b:2020](#), Specifications for particular types of winding wires - Part 82: Polyesterimide enamelled rectangular copper wire, class 200, \$47.00

[IEC 60317-27-2 Ed. 1.0 b:2020](#), Specifications for particular types of winding wires - Part 27-2: Paper tape covered round aluminium wire, \$47.00

[S+ IEC 60317-0-2 Ed. 4.0 en:2020 \(Redline version\)](#), Specifications for particular types of winding wires - Part 0-2: General requirements - Enamelled rectangular copper wire, \$259.00

[S+ IEC 60317-62 Ed. 2.0 en:2020 \(Redline version\)](#), Specifications for particular types of winding wires - Part 62: Polyester glass-fibre wound, silicone resin or varnish impregnated, bare or enamelled rectangular copper wire, temperature index 200, \$61.00

## **IEC Technical Reports**

### **ELECTROSTATICS (TC 101)**

[IEC/TR 61340-1 Amd.1 Ed. 1.0 en:2020](#), Amendment 1 - Electrostatics - Part 1: Electrostatic phenomena - Principles and measurements, \$12.00

[IEC/TR 61340-1 Ed. 1.1 en:2020](#), Electrostatics - Part 1: Electrostatic phenomena - Principles and measurements, \$410.00

## **IEC Technical Specifications**

### **SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)**

[IEC/TS 62257-9-8 Ed. 1.0 en:2020](#), Renewable energy and hybrid systems for rural electrification - Part 9-8: Integrated systems - Requirements for stand-alone renewable energy products with power ratings less than or equal to 350 W, \$352.00

# Registration of Organization Names in the United States

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

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

## PUBLIC REVIEW

Southern California Edison (SCE)

Public Review Ends: August 28, 2020

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

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge. A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

# Proposed Foreign Government Regulations

## Call for Comment

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

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

To register for Notify U.S., please visit

<http://www.nist.gov/notifyus/>.

The USA WTO TBT Inquiry Point is the official channel for distributing U.S. comments to the network of WTO TBT Enquiry Points around the world. U.S. business contacts interested in commenting on the notifications are asked to review the comment guidance available on Notify U.S. at

<https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> prior to submitting comments.

For further information about the USA TBT Inquiry Point, please visit:

<https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point>

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

# Information Concerning

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## American National Standards

### Call for Members

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

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

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

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

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

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

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

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

SCTE is currently seeking to broaden the membership base of its 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

#### International Kitchen Exhaust Cleaning Association (IKECA)

The reaccreditation of the International Kitchen Exhaust Cleaning Association (IKECA), an ANSI member and Accredited Standards Developer (ASD), has been approved at the direction of ANSI's Executive Standards Council under its recently revised operating procedures for documenting consensus on IKECA-sponsored American National Standards, effective June 17, 2020. For additional information, please contact: Ms. Sara Duginske, Director of Certification & Standards, International Kitchen Exhaust Cleaning Association, 2331 Rock Spring Road, Forest Hill, MD 21050; phone: 410.417.5234, ext. 1253; e-mail: [Sara@ikeca.org](mailto:Sara@ikeca.org).

### Reaccreditation

#### Health Level Seven International (HL7)

##### Comment Deadline: July 20, 2020

Health Level Seven International (HL7), an ANSI member and Accredited Standards Developer, has submitted revisions to its currently accredited operating procedures for documenting consensus on HL7-sponsored American National Standards, under which it was last reaccredited in 2015. As the current 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. Karen Van Hentenryck, Associate Executive Director, Health Level Seven, International, 3300 Washtenaw Avenue, Suite 227, Ann Arbor, MI 48104; phone: 734.677.7777, ext. 104; e-mail: [Karenvan@hl7.org](mailto:Karenvan@hl7.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 HL7 by July 20, 2020, with a copy to the ExSC Recording Secretary in ANSI's New York Office ([jthompso@ANSI.org](mailto:jthompso@ANSI.org)).

## Meeting Notices

### American Society of Safety Professionals (ASSP) – ANSI Z16 Committee

The American Society of Safety Professionals (ASSP) is the secretariat for ANSI Z16 Committee for Safety and Health Metrics and Performance Measures. The next Z16 meeting will take place virtually on July 15th – July 16th, 2020. Those interested in participating can contact ASSP for additional information at [L.Bauerschmidt@assp.org](mailto:L.Bauerschmidt@assp.org).



## **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 c  
to ANSI/ASHRAE Standard 15-2019**

**Public Review Draft**

**Proposed Addendum c to  
Standard 15-2019, Safety Standard  
for Refrigeration Systems**

**Second Public Review (June 2020)  
(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).

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).

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

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

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

## FOREWORD

*This addendum proposes changes to allow the use of equipment using small amounts of non-A1 refrigerants, only if they are listed to appropriate product safety standards. The proposal is consistent with research findings, and the published requirements of product safety standards such as UL 484 and UL 60335-2-40.*

*One clarifying change from comments received on the first publication public review draft is proposed by the committee.*

**Note:** The draft of Addendum c that was used for the First Publication Public Review is replaced in its entirety by this Second Independent Substantive Changes Public Review Draft. Substantive changes to the First Public Review Draft and related changes to Standard 15-2019 are indicated by blue-colored text with underlining (for additions) and strikethrough (for deletions). Only these changes in blue are open to comment. Editorial comments are not open for comment. Other sections of Standard 15-2019 that are unchanged are also not open for comment.

### Addendum c to Standard 15-2019

**Modify Section 7 as follows. The remainder of Section 7 remains unchanged.**

## 7. RESTRICTIONS ON REFRIGERANT USE

[ ... ]

### 7.2 Refrigerant Concentration Limits

[ ... ]

#### Exceptions to 7.2:

1. Listed equipment in locations other than public corridors and lobbies containing not more than 6.6 lb (3 kg) of *refrigerant*, regardless of its *refrigerant* safety classification, is exempt from Section 7.2, provided the equipment is installed in accordance with the listing and with the *manufacturer's* installation instructions.

### 7.5 Additional Restrictions

[ ... ]

#### 7.5.1.2 ~~Corridors and Lobbies. Refrigerating~~ Refrigeration systems installed in a public corridor or lobby shall comply with the following:

1. Refrigeration systems shall be limited to *unit systems*.
2. The refrigerant charge shall be limited based on the RCL, as specified in Section 7.2. ~~Section 7.2, Exception 1 for 6.6 lb (3 kg) of refrigerant in listed equipment shall not apply to refrigeration systems in a public corridor or lobby.~~
3. Refrigeration systems containing Class 2L, 2, or 3 refrigerants *shall be listed*, and the *refrigerant charge shall be limited for each unit system, calculated in accordance with the following equation:*

$$m_{\max} = 0.106 \times LFL \quad (\text{I-P})$$

$$m_{\max} = 3 \times LFL \quad (\text{SI})$$

where

$$m_{\max} \quad \equiv \quad \text{maximum charge quantity, lb (kg)}$$

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 15-2019, *Safety Standard for Refrigeration Systems*

Second Public Review Draft (ISC)

LFL      $\equiv$    lower flammability limit per ASHRAE Standard 34, pounds per 1000 ft<sup>3</sup> (kg per m<sup>3</sup>)

0.106      $\equiv$    a constant with units of “1000 ft<sup>3</sup>”

3          $\equiv$    a constant with units of “m<sup>3</sup>”

~~containing not more than the quantities of Group A1 or B1 refrigerant indicated in ASHRAE Standard 34<sup>2</sup>, Table 4.1 or 4.2.~~



**BSR/ASHRAE/IES Addendum b  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum b to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**Second Public Review (June 2020)  
(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/IES Addendum b to ANSI/ASHRAE Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings*  
 Second Public Review Draft – Independent Substantive Changes

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## FOREWORD

*Demand Controlled Ventilation (DCV) should be required when cost-effective for occupied spaces considering the required outside air for ventilation required based on number of people in the space, varying space sizes, use of energy recovery equipment, and climate zone.*

*The addendum in the first public review replaced single threshold parameters with a table where the floor area threshold requirement is based on climate zone and occupant outside airflow rates per 1,000 sq. ft. determined through ASHRAE Standard 62.1. The requirements are grouped by **occupant outside air flow component** ranges (cfm/1000 square feet) based on default parameters in 62.1. While the exact value for a particular space type varies, the three groups in the table generally correspond to (1) retail sales, break rooms, or bank lobbies, (2) classrooms or conference rooms, and (3) lecture halls, theatre or assembly.*

*Based on comments to the first public review, climate zones 0A and 0B were analyzed and the climate zone grouping of requirements was reviewed. Based on this review and additional analysis, Climate Zone 0A was moved to a more stringent requirement associated with climate zones 0B and 1B. Climate Zone 1A was separated from Climate Zones 3B and 4B to provide more appropriate floor area thresholds.*

*In addition, an exception for spaces that are not allowed to reduce outside airflow per the requirements in ASHRAE Standard 170, other applicable codes, or accreditation standards was added.*

*Cost Impact: The net effect of the proposal will increase the cost of construction. Since an economizer or motorized dampers are already required as part of the charging language of this section, the cost to add a sensor and wiring is expected to be \$300 or less per unit. A present value allowance of \$63 is added to the cost to allow for replacement of up to 50% of sensor elements halfway through the measure life. The square footage thresholds in the table result in cost effectiveness for a 15 year life control measure, based on being less than a discounted payback of 11.8 years.*

*[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 ~~striketrough~~ (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 b to 90.1-2019

*Modify the standard as follows (I-P Units)*

### 6.4.3.8 Ventilation Controls for High-Occupancy Areas

*Demand control ventilation (DCV)* is required for *spaces* larger the floor area shown in Table 6.4.3.8 based on an occupant outside airflow component in cfm per 1000 square feet and served by *systems* with one or more of the following:

- Air economizer.
- Automatic modulating control of outdoor air damper.
- Design outdoor airflow greater than 3000 cfm.

#### Exceptions to 6.4.3.8

- Multiple-zone *systems* without *DDC* of individual zones communicating with a central *control* panel.
- Spaces* where >75% of the *space* design outdoor airflow is required for *makeup air* that is exhausted from the space or transfer air that is required for makeup air that is exhausted from other spaces.
- Spaces* with one of the following occupancy categories as defined in ASHRAE Standard 62.1: correctional cells, daycare sickrooms, science labs, barbers, beauty and nail salons, and bowling alley seating.
- Spaces* where the requirements of ASHRAE Standard 170, applicable codes, or applicable accreditation standards do not allow the reduction of outdoor airflow.

**Table 6.4.3.8 Demand Controlled Ventilation (DCV) Floor Area Thresholds**

Climate Zone	Occupant outside air flow component (cfm/1000 square feet) <sup>a</sup>					
	100 to 199	200 to 399	≥400	100 to 199	200 to 399	≥400
	Minimum space floor area in square feet where DCV is required					
	Areas without exhaust air energy recovery			Areas with exhaust air energy recovery <sup>b</sup>		
7, 8	400	200	150	800	400	250
5A, 6A, 6B	600	250	150	1,400	900	400
<del>0A, 0B, 1B, 3A, 4A, 5B, 5C</del>	800	400	250	2,000	1,000	500
2A, 2B, 4C	1,100	600	300	2,300	1,100	600
<del>3B, 4B</del>	<del>1,500</del>	<del>700</del>	<del>400</del>	<del>5,200</del>	<del>2,350</del>	<del>1,250</del>
<del>0A, 1A, 3B, 4B</del>	2,400	1,100	600	5,800	2,600	1,400
3C	7,000	3,000	1,700	12,000	6,000	3,000

<sup>a</sup> Occupant outside airflow component in cfm per 1000 square feet shall be calculated as the product of default occupant density and outdoor airflow rate per occupant ( $R_p$ ) as shown in table 6.2.2.1 of ASHRAE Standard 62.1

<sup>b</sup> Where exhaust air energy recovery is required by ~~ASHRAE Standard 90.1~~ Section 6.5.6.1.

*Modify the standard as follows (SI Units)*

BSR/ASHRAE/IES Addendum b to ANSI/ASHRAE Standard 90.1-2019, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

Second Public Review Draft – Independent Substantive Changes

### 6.4.3.8 Ventilation Controls for High-Occupancy Areas

*Demand control ventilation (DCV)* is required for *spaces* larger the floor area shown in Table 6.4.3.8 based on an occupant outside airflow component in L/s per 100 m<sup>2</sup> and served by *systems* with one or more of the following:

- Air economizer.
- Automatic modulating control of outdoor air damper.
- Design outdoor airflow greater than 1500 L/s.

#### Exceptions to 6.4.3.8

- Multiple-zone *systems* without *DDC* of individual zones communicating with a central *control* panel.
- Spaces* where >75% of the *space* design outdoor airflow is required for *makeup air* that is exhausted from the space or transfer air that is required for makeup air that is exhausted from other spaces.
- Spaces* with one of the following occupancy categories as defined in ASHRAE Standard 62.1: correctional cells, daycare sickrooms, science labs, barbers, beauty and nail salons, and bowling alley seating.
- Spaces* where the requirements of ASHRAE Standard 170, applicable codes, or applicable accreditation standards do not allow the reduction of outdoor airflow.

**Table 6.4.3.8 Demand Controlled Ventilation (DCV) Floor Area Thresholds**

Climate Zone	Occupant outside air flow component ((L/s)/100 square meters) <sup>a</sup>					
	50 to 99	100 to 199	≥200	50 to 99	100 to 199	≥200
	Minimum space floor area in square meters where DCV is required					
	Areas without exhaust air energy recovery			Areas with exhaust air energy recovery <sup>b</sup>		
7, 8	40	20	15	80	40	25
5A, 6A, 6B	60	25	15	140	90	40
<u>0A, 0B, 1B, 3A, 4A, 5B, 5C</u>	80	40	25	200	100	50
2A, 2B, 4C	110	60	30	230	110	60
<u>3B, 4B</u>	<u>150</u>	<u>70</u>	<u>40</u>	<u>520</u>	<u>235</u>	<u>125</u>
<del>0A, 1A, 3B, 4B</del>	240	110	60	580	260	140
3C	700	300	170	1,200	600	300

<sup>a</sup> Occupant outside airflow component in L/s per 100 square meters shall be calculated as the product of default occupant density and outdoor airflow rate per occupant ( $R_p$ ) as shown in table 6.2.2.1 of ASHRAE Standard 62.1

<sup>b</sup> Where exhaust air energy recovery is required by ~~ASHRAE Standard 90.1~~ Section 6.5.6.1.



**BSR/ASHRAE/IES Addendum d  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum d to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**Second Public Review (June 2020)  
(Draft Shows Proposed Changes to Current Standard)**

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## FOREWORD

*The current requirements for garage ventilation are fairly lax:*

- *Fan systems are only required to reduce exhaust rates down to 50%. Thus a large garage could meet the requirement with two fans, on one 2-speed fan. Currently Standard 62.1 (and model codes based on this Standard) require 0.75 cfm/ft<sup>2</sup> which is much higher than is needed to meet ventilation requirements even under peak conditions for modern garages with a typical mix of gasoline, hybrid, and electric vehicles. Moreover these peak conditions seldom if ever occur, generally only when many vehicles simultaneously experience cold starts, e.g. at around 6pm for an office building garage. So improved low capacity operation is readily justified.*
- *Provided the system does not have mechanical cooling or heating capability, the exceptions exempt garages smaller than 30000 ft<sup>2</sup>, which would require a 22,500 cfm exhaust system, a relatively large system to run constant volume for the long periods a garage may be open and operational.*
- *Similarly, systems with more than 1500 ft<sup>2</sup>/HP is exempted. This roughly equates to a static pressure of 2.5" which is very high for garage exhaust systems. This exception exempts also all garage exhaust systems.*

*This addendum proposes the following changes:*

- *Garages that have separate sections separated by solid walls must have separate exhaust systems and controls. This is so that vehicle activity in one section does not result in unnecessary exhaust in other sections, and it improves safety by ensuring controls are provided in each section. There is no limit to the size of a section; many very large garages have only one section, e.g. all floors of a multi-story garage are often open to one another. Mandating separate systems and controls for each floor or for a certain maximum floor area may not be justified depending on the ventilation system design. For example unducted "Sweep Garage Exhaust Systems" per Taylor, ASHRAE Journal July 2016 can very efficiently serve a large garage. With "sweep" systems, ventilation in one section also ventilates the upstream sections at no added cost. Requiring small sections would disallow the system and essentially mandate much less efficient ducted systems.*
- *Controls must be able to reduce airflow down to 20% or less, reduced from 50% in the current standard. This minimum is readily provided by multiple stage fans or fans with variable speed drives. The 20% value matches the requirements of California's Title 24 requirement of 0.15 cfm/ft<sup>2</sup> (20% of the 0.75 cfm/ft<sup>2</sup> design airflow requirement).*
- *The system must include variable speed drives or equivalent to reduce power as airflow is reduced. The language "30% of design wattage at 50% of the design airflow" is used throughout the standard to infer this performance. The 50% value may appear to conflict with the 20% value in the previous bullet but it does not; it is simply a rating point. Note that systems that include some low power constant volume destratification (aka "jet") fans can still meet this requirement provided the main*

*exhaust fans are variable speed. These fans can also be readily made to be variable speed, e.g. with electronically commutated motors.*

- *The first exception is revised to address motor size, not garage size, since the cost of variable speed drives is directly a function of motor size. The size of the garage is indirectly addressed because motor size is tied to airflow rate which in turn is tied to garage size. The 5 HP limit is the same as that used for fan power in other sections and previously shown to be life cycle cost effective.*
- *The second exception is eliminated because, as noted above, it exempts too many systems and not relevant given the 5 HP limit is included.*
- *The last exception is eliminated because safety codes and authorities having jurisdiction always supercede Standard 90.1 requirements per Section 2.4 and need not be repeated here.*

*Note that, consistent with the current Standard 90.1 requirements for demand-control ventilation in garages (as well as densely occupied spaces and kitchen exhaust hoods), the contaminants required to be monitored and their setpoints are not addressed. These must be addressed by the designer based on their application (e.g. vehicle engine type) and health codes and standards.*

*Cost Impact: Costs will increase for pollutant sensors and fan variable speed drives. Cost effectiveness is assured by the LCCA done for VAV systems, variable flow chilled water pumps, and cooling tower fans which have the same 5 hp threshold yet operate fewer hours and/or much less turndown than garage ventilation fans.*

*[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 d to 90.1-2019

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*Modify the standard as follows (IP and SI Units)*

### 3.2 Definitions

...

**parking garage section:** a part of a parking garage where airflow is restricted from other parts of the garage by solid walls.

...

#### 6.4.3.4.5 Enclosed Parking Garage Ventilation Systems

Enclosed parking garage ventilation systems shall meet all of the following:

- a. Separate ventilation systems and control systems shall be provided for each parking garage section.
- b. Control systems for each parking garage section shall automatically detect and control contaminant levels and stage fans or modulate shall be capable of and configured to reduce fan airflow rates to 50% 20% or less of design capacity, provided acceptable contaminant levels are maintained.
- c. The ventilation system for each parking garage section shall have controls and devices that result in fan motor demand of no more than 30% of design wattage at 50% of the design airflow.

---

#### Exceptions to 6.4.3.4.5

1. ~~Garages ventilation systems serving a single parking garage section having a total ventilation system motor nameplate horsepower [kilowatts] not exceeding 5 hp [3.7 kW] at fan system design conditions less than 30,000 ft<sup>2</sup> with ventilation systems and where the parking garage section has no mechanical cooling or mechanical heating.~~
2. ~~Garages that have a garage area to ventilation system motor nameplate horsepower ratio that exceeds 1500 ft<sup>2</sup>/hp and do not utilize mechanical cooling or mechanical heating.~~
3. ~~Where not permitted by the authority having jurisdiction.~~



**BSR/ASHRAE/IES Addendum i  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum i to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**First Public Review (June 2020)  
(Draft Shows Proposed Changes to Current Standard)**

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## FOREWORD

*Foreword:*

*This addendum proposes a change to Section G3.1.2.10 Exhaust Air Heat Recovery to correct a mistake that was made when ASHRAE 90.1-2013 addendum bm was published. ASHRAE Standard 90.1 does not require systems serving laboratories to comply with prescriptive energy recovery requirements when laboratory exhaust is variable volume. This requirement was in 90.1-2004 and remains relatively unchanged in the current version of the Standard. Prior to the publication of addendum bm, Appendix G rules followed this requirement. The current wording in Appendix G would require a proposed laboratory design with variable flow exhaust and energy recovery to model both heat recovery and variable exhaust in the baseline HVAC system.*

*The proposed change aligns the baseline requirements of Appendix G with the requirements of laboratory systems from the 2004 version of 90.1.*

*This change does not change the cost-effectiveness of the standard.*

## Addendum i to 90.1-2019

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*Modify the standard as follows (IP and SI Units)*

### G3.1.2.10 Exhaust Air Energy Recovery

Individual fan systems that have both a design supply air capacity of 5000 cfm (2400 L/s) or greater and have a minimum design outdoor air supply of 70% or greater shall have an energy recovery system with at least 50% enthalpy recovery ratio. Fifty percent enthalpy recovery ratio shall mean a change in the enthalpy of the outdoor air supply equal to 50% of the difference between the outdoor air and return air at design conditions. Provision shall be made to bypass or control the heat recovery system to permit air economizer operation, where applicable.

---

#### Exceptions to G3.1.2.10

If any of these exceptions apply, exhaust air energy recovery shall not be included in the baseline building design:

1. Systems serving spaces that are not cooled and that are heated to less than 60°F (16°C).
2. Systems exhausting toxic, flammable, or corrosive fumes or paint or dust. This exception shall only be used if exhaust air energy recovery is not used in the proposed design.
3. Commercial kitchen hoods (grease) classified as Type 1 by NFPA 96. This exception shall only be used if exhaust air energy recovery is not used in the proposed design.
4. Heating systems in Climate Zones 0 through 3.
5. Cooling systems in Climate Zones 3C, 4C, 5B, 5C, 6B, 7, and 8.
6. Where the largest exhaust source is less than 75% of the design outdoor airflow. This exception shall only be used if exhaust air energy recovery is not used in the proposed design.
7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil. This exception shall only be used if exhaust air energy recovery and series-style energy recovery coils are not

used in the *proposed design*.

8. Systems serving laboratory HVAC zones with a total laboratory exhaust volume greater than 15000 cfm (2400 L/s).
- 
-



**BSR/ASHRAE/IES Addendum k  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum k to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**First Public Review (June 2020)  
(Draft Shows Proposed Changes to Current Standard)**

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FOREWORD

*This addendum adjusts the Section 11 budget building fan power to avoid a fan power credit for cases where the proposed building includes heat recovery and the budget building does not include heat recovery.*

*This addendum impacts an alternative compliance path and as result not subject to cost effectiveness.*

*[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 k to 90.1-2016

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11.5.2 HVAC Systems

The HVAC system type and related performance parameters for the budget building design shall be determined from Figure 11.5.2, the system descriptions in Table 11.5.2-1 and accompanying notes, and the following rules:

- a. **Budget Building Systems Not Listed.** Components and parameters not listed in Figure 11.5.2 and Table 11.5.2-1 or otherwise specifically addressed in this subsection shall be identical to those in the proposed design.

.....

- h. **Fan System Efficiency.** Fan system efficiency (bhp per cfm (input kW per L/s) of supply air, including the effect of belt losses but excluding motor and motor drive losses) shall be the same as the proposed design or up to the limit prescribed in Section 6.5.3.1, whichever is smaller. If this limit is reached, each fan shall be proportionally reduced in brake horsepower (input kW) until the limit is met. Fan electrical power shall then be determined by adjusting the calculated fan hp (kW) by the minimum motor efficiency prescribed by Section 10.4.1 for the appropriate motor size for each fan.

---

**Exception to 11.5.2(h)**

- 1. When a proposed design includes energy recovery but it is not required in the budget building design per Section 11.5.2.d, the fan power of those baseline systems shall be equal to either the proposed design system or the fan power limit in 6.5.3.1 calculated without fan power credit for energy recovery, whichever is less.

**ASME B16.1-2015** 20XX  
(Revision of ASME B16.1-2010) 2015

Proposed Revision of:

# **Gray Iron Pipe Flanges and Flanged Fittings**

## **Classes 25, 125, and 250**

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**Draft Date 06/2020**

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Table 9 Class 125 Flange and Bolting Dimensions

NPS 10 and Smaller  
Blind Flange

NPS 12 and Larger  
Blind Flange

Flanges		Hub		Blind Flanges		Bolt Holes		Bolting					
		Minimum Diameter of Flange, O	Minimum Thickness of Flange, Q [Note (1)]	Minimum Diameter, X	Minimum Length of Hub and Threads, Y [Note (2)]	Diameter of Port, I [Note (3)]	Wall Thickness, V [Note (4)]	Diameter of Bolt Holes [Notes (5) and (6)]	Diameter of Bolt Circle	Number of Bolts	Diameter of Bolts	Length of Bolts [Notes (7) and (8)]	Length of Bolt Stud With Two Nuts [Note (7)]
NPS													
1		110	11.1	49	18	25	9.6	79	5/8	4	1/2	45	---
1 1/4		115	12.7	59	21	32	11.1	89	5/8	4	1/2	51	---
1 1/2		125	14.3	65	22	38	12.7	98	5/8	4	1/2	51	---
2		150	15.9	78	25	51	14.3	121	3/4	4	5/8	57	---
2 1/2		180	18.5	91	29	64	15.9	140	3/4	4	5/8	64	---
3		190	19.0	108	30	76	17.5	152	3/4	4	5/8	64	---
3 1/2		215	20.6	122	32	89	19.0	178	3/4	8	5/8	70	---
4		230	23.8	135	33	102	22.2	191	3/4	8	5/8	76	---
5		255	23.8	164	37	127	22.2	216	7/8	8	3/4	76	---
6		280	25.4	192	40	152	23.8	241	7/8	8	3/4	83	---
8		345	28.6	246	45	203	27.0	299	7/8	8	3/4	89	---
10		405	30.2	303	49	254	28.6	362	1	12	7/8	95	---
12		485	31.8	357	56	305	20.6	432	1	12	7/8	95	---
14		535	35.1	391	57	356	22.2	476	1 1/8	12	1	108	---
16		595	36.5	445	64	406	25.4	540	1 1/8	16	1	114	---
18		635	39.7	499	68	457	27.0	578	1 1/4	16	1 1/8	121	---
20		700	42.9	553	73	508	28.6	635	1 1/4	20	1 1/8	127	---
24		815	47.6	660	83	610	31.8	749	1 3/8	20	1 1/4	140	---
30		985	54.0	---	---	762	36.6	914	1 3/8	28	1 1/4	159	---
36		1170	60.3	---	---	914	41.3	1086	1 5/8	32	1 1/2	178	222
42		1345	66.7	---	---	1066	46.0	1257	1 5/8	36	1 1/2	191	235
48		1510	69.9	---	---	1219	50.8	1422	1 5/8	44	1 1/2	197	242
54 (9)		1685	76.2	---	---	---	---	1594	2	44	1 3/4	216	267
60 (9)		1885	79.4	---	---	---	---	1759	2	52	1 3/4	222	273
66 (9)		2032	85.7	---	---	---	---	1930	2	52	1 3/4	241	292
72 (9)		2195	88.9	---	---	---	---	2096	2	60	1 3/4	241	292
78 (9)		2365	95.3	---	---	---	---	2261	2 1/4	64	2	267	318
84 (9)		2535	98.4	---	---	---	---	2426	2 1/4	64	2	267	324
90 (9)		2720	104.6	---	---	---	---	2591	2 1/2	68	2 1/4	292	357
96 (9)		2875	108.0	---	---	---	---	2756	2 1/2	68	2 1/4	292	356

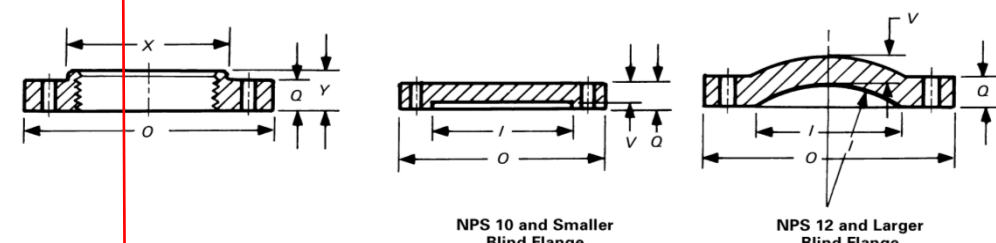
GENERAL NOTE: Dimensions are in millimeters.

NOTES:

- (1) For facing, see para. 7.2.(a)
- (2) For thread of threaded flanges, see paras. 7.5.1 and 7.5.2.
- (3) All blind flange NPS 12 and larger must be dished with inside radius equal to the port diameter.
- (4) For wall thickness tolerance, see para. 7.1.
- (5) For flange bolt holes, see para. 7.6.
- (6) For spot facing, see para. 7.7.
- (7) For bolts and nuts, see para. 8.1.1.
- (8) Bolt lengths to be compensated for when bolting steel to gray iron flanges.
- (9) NPS 54 through 96 are included for convenience. Pressure-temperature ratings are the user's responsibility.

Updates are shown  
in highlighted red  
text

Table I-9 Class 125 Flange and Bolting Dimensions

												
Flanges			Hub		Blind Flanges		Bolt Holes		Bolting			
NPS	Diameter of Flange, O	Minimum Thickness of Flange, Q [Note (1)]	Minimum Diameter, X	Minimum Length of Hub and Threads, Y [Note (2)]	Diameter of Port, I [Note (3)]	Wall Thickness, V [Note (4)]	Diameter of Bolt Circle	Diameter of Bolt Holes [Notes (5) and (6)]	Number of Bolts	Diameter of Bolts	Length of Bolts [Notes (7) and (8)]	Length of Bolt Stud With Two Nuts [Note (7)]
1	4.25	0.44	1.94	0.69	1.00	0.38	3.12	5/8	4	1/2	2.00	---
1 1/4	4.62	0.50	2.31	0.81	1.25	0.44	3.50	5/8	4	1/2	2.00	---
1 1/2	5.00	0.56	2.56	0.88	1.50	0.50	3.88	5/8	4	1/2	2.00	---
2	6.00	0.62	3.06	1.00	2.00	0.56	4.75	3/4	4	5/8	2.50	---
2 1/2	7.00	0.69	3.56	1.12	2.50	0.63	5.50	3/4	4	5/8	2.50	---
3	7.50	0.75	4.25	1.19	3.00	0.69	6.00	3/4	4	5/8	2.50	---
3 1/2	8.50	0.81	4.81	1.25	3.50	0.75	7.00	3/4	8	5/8	3.00	---
4	9.00	0.94	5.31	1.31	4.00	0.88	7.50	3/4	8	5/8	3.00	---
5	10.00	0.94	6.44	1.44	5.00	0.88	8.50	7/8	8	3/4	3.00	---
6	11.00	1.00	7.56	1.56	6.00	0.94	9.50	7/8	8	3/4	3.50	---
8	13.50	1.12	9.69	1.75	8.00	1.06	11.75	7/8	8	3/4	3.50	---
10	16.00	1.19	11.94	1.94	10.00	1.12	14.25	1	12	7/8	4.00	---
12	19.00	1.25	14.06	2.19	12.00	0.81	17.00	1	12	7/8	4.00	---
14	21.00	1.38	15.38	2.25	14.00	0.88	18.75	1 1/8	12	1	4.50	---
16	23.50	1.44	17.50	2.50	16.00	1.00	21.25	1 1/8	16	1	4.50	---
18	25.00	1.56	19.62	2.69	18.00	1.06	22.75	1 1/4	16	1 1/8	5.00	---
20	27.50	1.69	21.75	2.88	20.00	1.12	25.00	1 1/4	20	1 1/8	5.00	---
24	32.00	1.88	26.00	3.25	24.00	1.25	29.50	1 3/8	20	1 1/4	5.50	---
30	38.75	2.12	---	---	30.00	1.44	36.00	1 3/8	28	1 1/4	6.50	---
36	46.00	2.38	---	---	36.00	1.62	42.75	1 5/8	32	1 1/2	7.00	9.00
42	53.00	2.62	---	---	42.00	1.81	49.50	1 5/8	36	1 1/2	7.50	9.50
48	59.50	2.75	---	---	48.00	2.00	56.00	1 5/8	44	1 1/2	8.00	9.50
54 (9)	66.25	3.00	---	---	---	---	62.75	2	44	1 3/4	8.50	10.50
60 (9)	73.00	3.12	---	---	---	---	69.25	2	52	1 3/4	9.00	11.00
66 (9)	80.00	3.38	---	---	---	---	76.00	2	52	1 3/4	9.50	11.50
72 (9)	86.50	3.50	---	---	---	---	82.50	2	60	1 3/4	9.50	11.50
78 (9)	93.00	3.75	---	---	---	---	89.00	2 1/4	64	2	10.50	12.50
84 (9)	99.75	3.88	---	---	---	---	95.50	2 1/4	64	2	10.50	13.00
90 (9)	106.50	4.12	---	---	---	---	102.00	2 1/2	68	2 1/4	11.50	14.00
96 (9)	113.25	4.25	---	---	---	---	108.50	2 1/2	68	2 1/4	11.50	14.00

GENERAL NOTE: Dimensions are in inches.

NOTES:

- (1) For facing, see para. 7.2(a).
- (2) For thread of threaded flanges, see paras. 7.5.1 and 7.5.2.
- (3) All blind flanges NPS 12 and larger must be dished with inside radius equal to the port diameter.
- (4) For wall thickness tolerance, see para. 7.1.
- (5) For flange bolt holes, see para. 7.6.
- (6) For spot facing, see para. 7.7.
- (7) For bolts and nuts, see para. 8.1.
- (8) Bolt lengths to be compensated for when bolting steel to cast iron flanges.
- (9) NPS 54 through 96 are included for convenience. Pressure-temperature ratings are the user's responsibility.

Updates are shown in  
underlined red and blue  
text

## MANDATORY APPENDIX II REFERENCES

The following is a list of publications referenced in this Standard. Unless otherwise specified, the latest edition shall apply:

ASME B1.1, Unified Inch Screw Threads (UN and UNR Thread Form)

ASME B1.20.1, Pipe Threads, General Purpose (Inch)

ASME B16.5, Pipe Flanges and Flanged Fittings: NPS ½ Through NPS 24 Metric/Inch Standard

ASME B16.21, Nonmetallic Flat Gaskets for Pipe Flanges

ASME B18.2.1, Square and Hex Bolts and Screws (Inch Series)

ASME B18.2.2, Square and Hex Nuts (Inch Series)

ASME PCC-1, Guidelines for Pressure Boundary Bolted Flange Joint Assembly

Publisher: The American Society of Mechanical Engineers (ASME), Two Park Avenue, New York, NY 10016-5990 ([www.asme.org](http://www.asme.org))

ASTM A 126-04 (~~2014~~19), Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings

ASTM A 307-14~~e1~~, Specification for Carbon Steel Bolts, ~~and Studs,~~ and Threaded Rod 60,000 psi Tensile Strength

ASTM E 29-13 (2019) Standard Practice for Using Significant Digits in Test Data to Determine Conformance With Specifications

Publisher: American Society for Testing and Materials (ASTM International), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 ([www.astm.org](http://www.astm.org))

ISO 9001: 2008~~15~~, Quality management systems – Requirements<sup>1</sup>

Publisher: International Organization for Standardization (ISO), Central Secretariat, Chemin de Blandonnet 8, Case Postale 401, 1214 Vernier, Geneva, Switzerland ([www.iso.org](http://www.iso.org))

MSS SP-6-2012~~17~~, Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings

MSS SP-9-2013~~18~~, Spot Facing for Bronze, Iron, and Steel Flanges

MSS SP-45-200~~3~~20 (~~R2008~~), Bypass and Drain Connections

Publisher: Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS), 127 Park Street, NE, Vienna, VA 22180 ([www.mss-hq.org](http://www.mss-hq.org))

<sup>1</sup> May also be obtained from American National Standards Institute (ANSI), 25 West 43rd Street, New York, NY 10036.

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Revision to NSF/ANSI/CAN 60-2019  
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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by **gray highlighting**. Rationale statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard  
for Drinking Water Additives –

## Drinking Water Treatment Chemicals – Health Effects

.  
.  
.

### 6 Disinfection and oxidation chemicals

.  
.  
.

#### 6.3.3 Required labeling for sodium hypochlorite products (production dates and repackage dates)

##### ~~6.3.3.1 Manufacturer's use instructions~~

Because aged solutions of sodium hypochlorite may contain elevated levels of chlorate and perchlorate, certification listings, ~~and the manufacturer's use instructions, or documentation supplied with the product that reference this Standard,~~ shall reference the recommended handling and storage practices contained in AWWA B300 – Hypochlorites.

##### ~~6.3.3.2 Production dates and repackaging dates~~

For sodium hypochlorite products, the manufacturing date, and if applicable the repackaging date, for the product shall be included on the documentation supplied with any shipment. This alerts the end user of the bleach product age, as aged solutions of sodium hypochlorite may contain elevated levels of chlorate and perchlorate. Reference the AWWA B300 Standard Appendix: *Recommendations for the Handling and Storage of Hypochlorite Solutions* for additional information.

***Rationale: Revised per discussion at 2019 DWA-TC JC meeting (December 4, 2019). As AWWA B300 is primarily used by water utilities (end users of Standard 60 compliant bleach), it is proposed that the current reference to B300 be changed from being a Standard 60 product literature requirement to an informational reference in Standard 60, as well as a requirement for Certification Listings. This change will help to clarify the requirements for bleach manufacturers/ distributors versus the guidelines for water utilities/end users in controlling the formation of chlorate and perchlorate in sodium hypochlorite bleach during handling and storage.***

## BSR/UL 101, Standard for Safety for Leakage Current for Utilization Equipment

### 1. Proposed Revisions To Paragraph 1.1 To Include Foreseeable Use And Failure Conditions

#### 1. Purpose

1.1 To minimize the risks of physical reaction to electrical shock or inability to let go a live part of the user, or burns to the user, from exposure to leakage currents from utilization equipment under foreseeable use and failure conditions, this standard provides:

- a) Leakage current limits under normal, abnormal, and fault conditions,
- b) Methods, specifications for measuring equipment, and test conditions for measurement of leakage currents.

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## BSR/UL 263, Standard for Safety for Fire Tests of Building Construction and Materials

### 1. Correction to relocate requirements inadvertently misplaced from the October 6, 2017 proposal bulletin, and to reinstate the requirements that were incorrectly replaced as a result.

#### 3.2 Furnace temperatures

3.2.1 The measured temperature to be compared with the standard time-temperature curve is to be the average temperature obtained from the readings of not fewer than nine thermocouples for a floor, roof, wall or partition and not fewer than eight thermocouples for a structural beam or column, symmetrically disposed and distributed to indicate the temperature near all parts of the specimen.

3.2.2 The thermocouples are to be enclosed in sealed porcelain tubes, 3/4 inch (19.1 mm) in outside diameter and 1/8 inch (3.2 mm) in wall thickness or, as an alternative in the case of base metal thermocouples, enclosed in sealed, standard-weight 1/2-in [0.84-in (21.3 mm) outside diameter] black wrought steel or black wrought iron pipe. See the Standard for Welded and Seamless Wrought Steel Pipe, ASME B36.10M. The exposed length of the pyrometer tube and thermocouple in the furnace chamber is to be not less than 12 in (305 mm). Other types of protecting tubes or pyrometers may be used that, under test conditions, give the same indications as those specified within the limit of accuracy that applies for furnace temperature measurements.

3.2.3 For floors, roofs, beams and columns, the junction of each thermocouple is to be placed 12 in (305 mm) away from the exposed face of the specimen at the beginning of the test and is not to touch the specimen during the test, as a result of specimen deflection.

3.2.4 For walls and partitions, the thermocouples are to be placed 6 in (152 mm) away from the exposed face of the specimen at the beginning of the test and are not to touch the specimen during the test as a result of specimen deflection.

3.2.5 ~~A minimum of two pressure sensors shall be used when testing vertical specimens. The pressure sensors shall be separated by a vertical distance of at least 3 ft (0.91 m).~~ The temperatures are to be read at intervals not exceeding 5 minutes during the first 2 hours; the intervals thereafter may be increased to not more than 10 minutes.

3.2.6 ~~A minimum of two pressure sensors shall be used when testing horizontal specimens. The pressure sensors shall be in the same horizontal plane but in different positions relative to the perimeter of the test specimen. The temperature of the furnace is to be controlled so that the area under the measured time-temperature curve, obtained by averaging the results from the pyrometer readings, is within:~~

- a) 10 percent of the corresponding area under the standard time-temperature curve shown in Figure 3.1 for fire tests of 1 hour or less duration.
- b) 7.5 percent for tests longer than 1 hour but not longer than 2 hours, and
- c) 5 percent for tests exceeding 2 hours in duration.

#### 3.4 Furnace pressure

3.4.1 The furnace pressure shall be measured and recorded at least once every minute and shall be included in test reports.

3.4.2 The pressure sensors shall be located where they will not be subject to direct impingement of convection currents from flames or in the path of the exhaust gases. Tubing

connected to the pressure sensors shall be horizontal both in the furnace and as they exit through the furnace wall, such that the pressure is relative to the same positional height from the inside to the outside of the furnace.

3.4.3 The furnace pressure is to be measured by means of a manometer or equivalent transducer capable of reading pressure within an accuracy of 0.01 in of water (2.5 Pa) increments.

3.4.4 The pressure measuring probe tips are to be as illustrated in Figures 3.2 and 3.3 and are to be manufactured from stainless steel or equivalent material.

3.4.5 A minimum of two pressure sensors shall be used when testing vertical specimens. The pressure sensors shall be separated by a vertical distance of at least 3 ft (0.91 m).

3.4.6 A minimum of two pressure sensors shall be used when testing horizontal specimens. The pressure sensors shall be in the same horizontal plane but in different positions relative to the perimeter of the test specimen.

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## BSR/UL 1278, Standard for Safety for Movable and Wall- or Ceiling-Hung Electric Room Heaters

### 1. Smart Enabled Heater Exceptions

SE2.2 Controls of Table SE2.1 shall be incorporated at the appliance. See Table SE2.1.

Exception: The controls of Table SE2.1 need not be incorporated, except SE2.9(c) if, with protective controls bypassed, a heater does not become a risk of fire, electric shock or injury to person when operated continuously under the abnormal operation tests specified in 42.2 – 42.7 and 42.9 – 42.12 under the following conditions:-

- a) Unless otherwise specified, abnormal operation tests are to be conducted with the heater operating continuously until the ultimate result has been determined. In most cases, continuous operation for 7 to 8 hours will be necessary in order to prove that the ultimate result has been observed.
- b) The applied voltage and method of hanging or location shall be in accordance with Normal Temperature Tests, Section 40
- c) When subject to an abnormal operation test, a heater is considered to involve a risk of fire if there is any emission of embers, flame or molten metal, if there is ignition (see 3.14) of the materials described in 42.1.8 – 42.1.13 or if there is glowing or flaming of the combustible material adjacent to or upon which the heater is placed, including, in the case of the vertical wall test, 42.5, charring with crosschecking of the plywood (see 3.6).

### 2. Withdrawal and replacement of 508C with UL 618005-1

4.3.4.1 A control used to start, stop, regulate or control the speed of a motor shall comply with one of the following:

- a) The Standard for Solid-State Controls for Appliances, UL 244A;
- b) The Standard for Temperature-Indicating and -Regulating Equipment, UL 873;
- c) The Standard for Industrial Control Equipment, UL 508;
- d) ~~The Standard for Power Conversion Equipment, UL 508C; or~~
- e) The Standard for Automatic Electrical Controls - Part 1: General Requirements, UL 60730-1; ~~or-~~
- f) The Standard for Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy, UL 61800-5-1.

26.4 Except as indicated in 26.3, electronically protected motor circuits shall comply with one of the following. See 4.3.4 for basic control requirements:

- a) The Standard for Tests for Safety-Related Controls Employing Solid-State Devices, UL 991. When the protective electronic circuit is relying upon software as a protective component, it shall comply with the requirements in the Standard for Software in Programmable Components, UL 1998. If software is relied upon to perform a safety function, it shall be considered software Class 1;
- b) The Standard for Automatic Electrical Controls - Part 1: General Requirements, UL 60730-1. If software is relied upon to perform a safety function, it shall be considered software Class B; or
- c) ~~The Standard for Power Conversion Equipment, UL 508C~~ Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy, UL 61800-5-1.

*Exception: Compliance with the above standards is not required for an electronically protected motor circuit if there is no risk of fire, electric shock, or injury to persons during abnormal testing with the motor electronic circuit rendered ineffective; compliance with the applicable requirements of this end product standard is then required.*

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**BSR/UL 1479-202x, Standard For Safety For Fire Tests of Penetration Firestops****1. Environmental Exposure Tests for Intumescent Firestop Device****PROPOSAL****9.1 General**

9.1.1 Intumescent fill, void or cavity material, and intumescent firestop device shall comply with the Expansion pressure test, 9.4, and with the Expansion factor test, 9.5, following exposure to the required environmental exposures specified in 9.2 and, as applicable, to the supplemental environmental exposures specified in 9.3.

**9.2 Required environmental exposures**

9.2.1 Intumescent fill, void or cavity material, and intumescent firestop device is to be exposed to the following conditions:

- a) Accelerated Aging - Samples of the material are to be placed in a circulating air-oven at  $158 \pm 5^{\circ}\text{F}$  ( $70 \pm 2.7^{\circ}\text{C}$ ) for 270 days.
- b) High Humidity - Samples of the material are to be placed in a controlled humidity of 97 - 100% at  $95 \pm 3^{\circ}\text{F}$  ( $35 \pm 1.5^{\circ}\text{C}$ ) for 180 days.

9.2.2 Following exposure to specified conditions in 9.2.1, the material is to be subjected to the Expansion pressure test, 9.4, and to the Expansion factor test, 9.5.

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## BSR/UL 8750, Standard for Safety for Light Emitting Diode (LED) Equipment For Use In Lighting Products

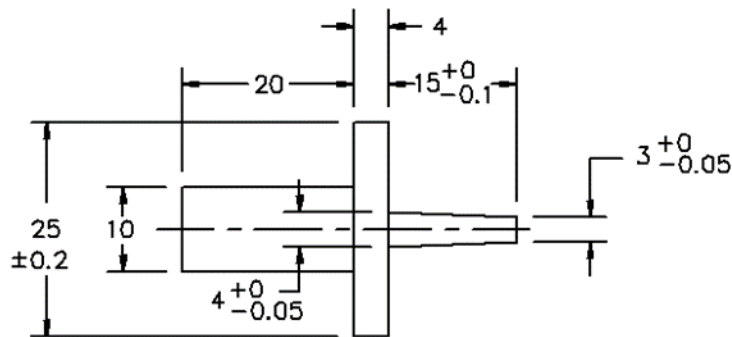
### 1. Add criteria for enclosure openings

6.4.1.1 Direct plug-in or through-cord units may have openings, if circuits posing a risk of shock cannot be contacted due to the test instruments noted below being inserted through the openings applying a force not exceeding 4.45 N (1 lbf).

- a) Test pin illustrated in Figure 6.1. and
- b) Articulate probe illustrated in Figure 7.1.

Figure 6.1

Test pin



S2962

Dimensions in millimeters

6.4.2 Open holes are permitted for LED equipment types not described in 6.4.1 and 6.4.1.1, subject to the accessibility criteria described in 7.2. Line of sight to open core and coil components shall be louvered or baffled.

### 2. Add grounded conductor color options

7.4.2.2.3 The insulation of a lead intended for the connection of a grounded conductor (common or neutral) shall, ~~be white or gray throughout its length.~~

- a) Be colored white or grey.
- b) Be of any color except green, with a continuous white tracer throughout its length.
- c) Be identified at the point where connected to the branch circuit by white paint, tape, ink, or permanent tag, or
- d) Be provided with one or more raised longitudinal ridges, if a parallel conductor flexible cord.

### 3. ***Correction to bonding conductor test set up***

8.23.2 The unit shall be prepared per 8.7.1.1 items (b) to (d) and (g).

### 4. ***Add supplement to facilitate evaluation of Double Insulated LED equipment using current requirements of UL 2097***

#### **Supplement SK – Requirements for Double Insulated LED equipment**

##### **SK1 Scope**

SK1.1 These requirements apply to LED equipment that are to marked or identified as Double Insulated based on manufacturer request.

##### **SK2 General**

SK2.1 In this supplement, 'this standard' refers to 'UL 8750' and 'device' refers to the 'device under test'.

SK2.2 Double Insulated LED equipment shall be evaluated per the Reference Standard for Double Insulated Systems for Use in Electronic Equipment, UL 2097- 4<sup>th</sup> Edition in conjunction with the requirements in this Supplement. This evaluation shall include consideration to UL 2097 appendices A & B for background and guidance information regarding Double Insulation Systems.

SK2.3 This Supplement has requirements to provide Double Insulation using only methods 'b' & 'c' under the heading 'Level of Protection Provided by Double Insulation' in Appendix A of UL 2097 (i.e. Double Insulation & Reinforced Insulation).

##### **SK3 Organization**

SK3.1 UL 2097 Appendix A identifies factors that may necessitate differences when the requirements are applied for specific product types. Table SK4.1 constitutes UL 8750 differences from the text of UL 2097. See '2097 Reference' column.

SK3.2 Table SK4.1 identifies 3 types of differences as identified under the 'Differences' column and the footnotes to the table.

SK3.3 When a section or clause of UL 2097 is not referenced in Table SK4.1, the text from UL 2097 applies verbatim (e.g. since paragraph 1.3.1 is not noted in the table, it is to be applied as specified in UL 2097 as part of the evaluation per this Supplement).

SK3.4 Section, table and clause numbers under the 'Requirement' column of Table SK4.1 are reference to other parts of UL 8750.

SK3.5 In Table SK4.1 notes are normative.

**SK4 Requirements**

Table SK4.1  
UL 2097 Differences

<u>UL 2097 Reference</u>	<u>Difference<sup>1</sup></u>	<u>Requirement</u>
<u>1 Introduction</u>		
<u>1.1.2</u>	<u>NA</u>	<u>Devices with means for grounding or functional grounding are not permitted.</u>
<u>1.3 Glossary</u>		
<u>1.3.7</u>	<u>MR</u>	<u>ELV circuits are isolated circuits that may present a risk of shock (see 3.24) only during a single fault condition.</u>  <u>Note- This definition is provided to establish the level of insulation equivalency. Such circuits should not be identified or marked as ELV circuits in UL 8750 compliant products.</u>
<u>1.3.12</u>	<u>MR</u>	<u>Other power sources such as generators, fuel cells, solar cells, and the like are also permitted- see 1.2.</u>
<u>1.3.13</u>	<u>NA</u>	<u>Protective impedance is not permitted between live parts (or parts that may become live in case of a fault) and accessible conductive parts.</u>
<u>1.3.18.</u>	<u>MR</u>	<u>SELV circuits are isolated circuits that do not present a risk of shock under normal operation or during a single fault condition.</u>  <u>Note 1- For the purposes of this Standard, this definition applies to the maximum permissible voltage component of the criteria for Class 2 and LVLE circuits.</u>  <u>Note 2- This definition is provided to establish the level of insulation equivalency. Such circuits should not be identified or marked as SELV circuits in UL 8750 compliant products.</u>
<u>1.4 General requirements</u>		
<u>1.4.4</u>	<u>MR</u>	<u>Components described in 7.9.2 meet this criteria.</u>
<u>1.6 Markings</u>		
<u>1.6.1</u>	<u>MR</u>	<u>'shall' is replaced with 'may' in the requirement to allow marking of devices that comply based on manufacturer preference.</u>
<u>2.2.1 General</u>		
<u>2.2.1.2</u>	<u>MR</u>	<u>When an insulating barrier is used, the criteria described in 7.2.3-7.2.6 shall be applied.</u>
<u>2.2.2 Reinforced insulation</u>		
<u>2.2.2.2</u>	<u>MR</u>	<u>When Reinforced Insulation is provided by one layer of insulation barrier, the criteria described in 7.2.3- 7.2.6 and 7.6.1- 7.6.2 shall be applied.</u>
<u>2.2.2.2</u>	<u>MR</u>	<u>In evaluation of multiple layer Reinforced Insulation, abuse or damage to individual layers during manufacturing is not considered likely, since these materials are not expected to be handled when LED equipment is used as intended. Further, such abuse or damage is not considered likely to occur during factory installation of components (building-in).</u>

<u>UL 2097 Reference</u>	<u>Difference<sup>1</sup></u>	<u>Requirement</u>
<u>2.2.2.4</u>	<u>MR</u>	<u>Other design options described in Section 7.11 also meet this criteria. The minimum Insulation thicknesses and DVW test values noted in Section 7.11 shall be considered equivalent to the required values for Reinforced insulation.</u>
<u>2.2.3 Basic insulation</u>		
<u>2.2.3.1</u>	<u>MR</u>	<u>The minimum spacings specified in Section 7.8 apply.</u>
<u>2.3 SELV circuits and dead metal parts</u>		
<u>2.3.1</u>	<u>NA</u>	<u>Item 'a) Earth Ground' is deleted as devices with means for grounding or functional grounding are not permitted (see difference for 1.1.2 in this table).</u>
<u>2.4 Spacings (creepage distances and clearances)</u>		
<u>2.4.1</u>	<u>MR</u>	<u>See Section 7.8 for required values for Basic Insulation (see difference for 2.2.3.1 in this table).</u>
<u>2.5 Safety isolating transformers</u>		
<u>2.5.1</u>	<u>MR</u>	<u>All design options described in Section 7.11 meet this criteria. <i>Exception- 7.11.2.3 where insulating tape is used to form a bent up edge for a concentrically-wound bobbin transformer.</i></u>
<u>3.2 Power supply cords</u>		
<u>3.2.1.</u>	<u>AR</u>	<u>Supply cords shall be jacketed 2 conductor type.</u>
<u>3.2.1.</u>	<u>NA</u>	<u>The exception to this clause does not apply as devices with means for grounding or functional grounding are not permitted (see SL1.1.2.NA).</u>
<u>5.2 Dielectric voltage-withstand tests</u>		
<u>5.2.2</u>	<u>MR</u>	<u>See section 8.6. When a test in other parts of this standard requires a follow-on DVW test, the values required by this clause apply. <i>Exception- DVW test requirements in Section 7.11.</i></u>
<u>5.3 Overload conditioning on safety isolating transformer insulation</u>		
<u>5.3.3</u>	<u>MR</u>	<u>The alternate output loading test method described in 8.7.4 is permitted.</u>
<u>5.3.5</u>	<u>MR</u>	<u>This test may be performed on one sample.</u>
<sup>1</sup> Difference: <b>AR</b> (additional requirements)- indicates additional requirements that are not specified in UL 2097 <b>MR</b> (modified requirements)- indicates UL 2097 requirements that have been modified. <b>NA</b> (not applicable)- indicates UL 2097 requirements that do not apply.		