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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: March 11, 2018

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

Addenda

BSR/ASHRAE Addendum 90.4c-201x, Energy Standard for Data Centers (addenda to ANSI/ASHRAE 90.4-2016)

This addendum corrects the table title of 8.2.1.2 as suggested in a continuous maintenance proposal that was accepted as submitted by SSPC 90.4.

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

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

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

Addenda

BSR/ASHRAE Addendum a to BSR/ASHRAE Standard 15-201x, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2013)

This addendum modifies ASHRAE 15 by making necessary changes to defer regulation of ammonia refrigeration systems to ANSI/IIAR 2. ASHRAE 15 and ANSI/IIAR 2 have historically served as additive standards for regulation of ammonia systems, with ASHRAE addressing general design and IIAR addressing ammonia-specific topics. The arrangement has burdened ASHRAE 15 with a variety of ammonia-specific exceptions, and it challenges designers, engineers, operators, and regulators with the task of deciphering regulations from overlapping standards. These stakeholder groups, which include OSHA and EPA, have questioned the need for two independent standards for ammonia refrigeration systems and have encouraged the elimination of this unnecessary complexity.

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

Send comments (with copy to psa@ansi.org) to: <https://osr.ashrae.org/default.aspx>

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

Addenda

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1a-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This proposed addendum adds Climate Zones 4A and 4B to those required to meet heat island mitigation criteria in Section 5.3.5.3 for roofs. New research continues to demonstrate that heat islands exist and that they can be substantially mitigated with cool roofs.

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

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

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

Addenda

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1b-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This proposal would limit the use of the "Section 7.4.1.1.2, Alternate Renewables Approach: Reduced On-Site Renewable Energy Systems and Higher-Efficiency Equipment" to building projects that are less than 10,000 square feet or use the simplified mechanical system approach for compliance with ASHRAE 90.1. Larger buildings and buildings with complex mechanical systems will be able to comply with the standard by either complying prescriptively to the on-site renewables requirements in Section 7.4.1.1.1 or calculating trade-offs between energy efficiency and on-site renewables by using the performance approach in Section 7.5.

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

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

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

Addenda

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1c-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This proposal updates the existing requirements for the VOC content option of paints and coatings by (a) limiting the paint categories that can use the VOC content option; and (b) for paint categories using the VOC content option, requiring them to comply only with the requirements of the California Air Resources Board Suggested Control Measure for Architectural Coatings.

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

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

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

Addenda

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1d-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This addendum modifies the language of section 8.3.4 on Soil Gas Entry Control to reduce the possibility of confusion regarding where such controls are required. Please note that the content in sections 8.3.4.1 and 8.3.4.2 and their respective subsections are not open for comment at this time.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1ab-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum is intended to clarify the definitions and classifications of the 90.1 standard regarding doors and fenestration. The addendum clarifies when doors are classified as fenestration and when doors are classified as opaque doors.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1af-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum makes three changes to Appendix G in reference to lighting power, power limits for exterior lighting, and a baseline allowance for retail display lighting.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1ag-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum accounts for the inclusion of automatic receptacle controls in a proposed building design for spaces that are not required to have them by increasing the receptacle schedule in the baseline building.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1ah-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

The language in section 9.1.4 is currently dated and does not relate well to modern lighting equipment and installation methodology. This proposal updates the language and terminology.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1o-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This 2nd public review draft ISC to addendum o clarifies the labeling requirements for various types of building insulation. This addendum does not affect the energy use of the standard and has no economic impact.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1s-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

In response to comments from the first public review, we added language for an additional option for both Section 11 and Appendix G which renewable systems are eligible. This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost-effectiveness analysis.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1x-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum provides revisions to the description of the compliance path to clarify how the standard is intended to be used. These changes do not revise the previously intended path to compliance.

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

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1y-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

In response to comments from the first public review, we clarified how hourly values would be applied when sizing and added an exception for how equipment for residences are sized. This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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

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

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

Addenda

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1e-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This addendum corrects an error in Section 7.5 Performance Option relating to the target for CO₂e emissions by replacing the current wording in the standard with that intended by the project committee.

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

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

NSF (NSF International)

Revision

BSR/NSF 14-201x (i91r1), Plastics Piping System Components and Related Materials (revision of ANSI/NSF 14-2016)

This Standard establishes minimum physical, performance, and health effects requirements for plastic piping system components and related materials. These criteria were established for the protection of public health and the environment.

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

Send comments (with copy to psa@ansi.org) to: Jason Snider, (734) 418-6660, jsnider@nsf.org

NSF (NSF International)

Revision

BSR/NSF 49-201x (i92r5), Biosafety Cabinetry: Design, Construction, Performance and Field Certification (revision of ANSI/NSF 49-2016)

This Standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to biosafety levels 1, 2, 3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this Standard. This Standard includes basic requirements for the design, construction, and performance of biosafety cabinets that are intended to provide personnel, product, and environmental protection; reliable operation; durability and structural stability; cleanability; limitations on noise level; illumination; vibration; and motor/blower performance.

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

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

NSF (NSF International)

Revision

BSR/NSF 50-201x (i135r2), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016a)

This Standard covers materials, components, products, equipment and systems, related to public and residential recreational water facility operation.

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

Send comments (with copy to psa@ansi.org) to: Jason Snider, (734) 418-6660, jsnider@nsf.org

UL (Underwriters Laboratories, Inc.)

New National Adoption

BSR/UL 62841-3-13-201x, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 3-13 Particular Requirements for Transportable Drills (national adoption with modifications of IEC 62841-3-13)

This proposal for UL 62841-3-13 covers: (1) Proposed adoption of the first edition of IEC 62841-3-13, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 3-13: Particular Requirements for Transportable Drills, as the first edition of UL 62841-3-13.

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

Send comments (with copy to psa@ansi.org) to: Beth Northcott, (847) 664-3198, Elizabeth.Northcott@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 723-201x, Standard for Safety for Test for Surface Burning Characteristics of Building Materials (revision of ANSI/UL 723-2017)

The following changes in requirements to the Standard for Safety for Test for Surface Burning Characteristics of Building Materials, UL 723, is being proposed: (1) Addition of Heptane Representative Curve.

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

Send comments (with copy to psa@ansi.org) to: Mary Huras, (613) 368-4425, Mary.Huras@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1557-201x, Standard for Safety for Electrically Isolated Semiconductor Devices (revision of ANSI/UL 1557-2014)

(1) Adding dc production-line dielectric testing.

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

Send comments (with copy to psa@ansi.org) to: Mitchell Gold, (847) 664-2850, Mitchell.Gold@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2523-201X, Standard for Safety for Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters and Boilers (revision of ANSI/UL 2523-2013)

These requirements apply to factory-built manually and/or automatically fueled solid fuel-fired hydronic heating appliances, water heaters, and boilers, as defined in Section 5, Glossary, intended to be fixed non-moveable appliances. The appliances are intended to burn solid fuels, such as wood, coal, or any other biomass fuel, as specified by the manufacturer. The appliances are provided with an integral chimney and termination or intended for connection to chimneys for residential-type and building heating appliances or for building heating appliances in compliance with the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel Burning Appliances, NFPA 211, and intended for installation in compliance with the National Electrical Code, ANSI/NFPA 70; and the International Mechanical Code (ICC), International Residential Code (IRC), and the Uniform Mechanical Code (UPMC), as applicable.

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

Send comments (with copy to psa@ansi.org) to: Gillian Wintonic, (613) 368-4427, Gillian.Wintonic@ul.com

Comment Deadline: March 26, 2018

AAFS (American Academy of Forensic Sciences)

New Standard

BSR/ASB Std 011-201x, Scope of Expertise in Forensic Document Examination (new standard)

This document will describe the responsibilities and qualifications of individuals engaged in the practice of forensic document examination. This document can provide guidance to anyone encountering matters involving forensic document examination.

Single copy price: Free

Obtain an electronic copy from: <http://asb.aafs.org/>

Order from: Document will be provided electronically on AAFS Standards Board website free of charge.

Send comments (with copy to psa@ansi.org) to: asb@aafs.org

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI RD47-2008 (R201x), Reprocessing of hemodialyzers (reaffirmation of ANSI/AAMI RD47-2008 (R2013))

Describes the essential elements of good practice for reprocessing hemodialyzers to help ensure device safety and effectiveness. These practices embrace considerations of the device and the patient, as well as attention to equipment, facilities, cleaning and disinfection methods, labeling, preparation for multiple use, and quality control of the reuse process. This document does not endorse either single use or reuse of dialyzers.

Single copy price: \$125.00 (AAMI Members)/\$222.00 (List)

Obtain an electronic copy from: www.aami.org

Order from: AAMI Publications; (phone) 1-877-249-8226; (fax) 1-301-206-9789

Send comments (with copy to psa@ansi.org) to: Cliff Bernier, cbernier@aami.org

ABMA (ASC B3) (American Bearing Manufacturers Association)

Revision

BSR/ABMA 8.2-201x, Ball and Roller Bearing Mounting Accessories - Inch Design (revision of ANSI/ABMA 8.2-1999 (S2010))

This Standard establishes dimensions and minimum physical properties of mounting accessories used for locating or fixing inch design ball and roller bearings to the shaft of a machine or mechanism. All components covered by this Standard are designed to U.S. Customary (inch) dimensions. The equivalent S.I. (metric) dimensions are provided for the convenience of those using that system.

Single copy price: \$Draft standard available free of charge

Obtain an electronic copy from: info@abma.org

Send comments (with copy to psa@ansi.org) to: jconverse1@nc.rr.com

APT (ASC CGATS) (Association for Print Technologies)

Reaffirmation

BSR CGATS/ISO 12640-4-2012 (R201x), Graphic technology - Prepress digital data exchange - Part 4: Wide gamut display-referred standard colour image data [Adobe RGB (1998)/SCID] (reaffirmation of ANSI CGATS/ISO 12640-4-2012)

This part of ISO 12640 specifies a set of standard wide gamut display-referred color images [encoded as 16-bit Adobe RGB (1998) digital data] that can be used for the evaluation of changes in image quality during coding, image processing (including color re-rendering and color space transformations, compression and decompression), displaying on a color monitor and printing. These images can be used for research, testing, and assessing of output systems such as printers, color management systems, and color profiles.

Single copy price: \$96.00

Obtain an electronic copy from: dorf@aptech.org

Order from: Debra Orf, (703) 264-7200, dorf@aptech.org

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

APT (ASC CGATS) (Association for Print Technologies)

Reaffirmation

BSR CGATS/ISO 15930-4-2004 (R201x), Graphic technology - Prepress digital data exchange using PDF - Part 4: Complete exchange of CMYK and spot colour printing data using PDF 1.4 (PDF/X-1a) (reaffirmation of ANSI/CGATS/ISO 15930-4:2004)

This part of ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.4 for the dissemination of complete digital data, in a single exchange, that contains all elements ready for final print reproduction. CMYK and spot-colour data are supported in any combination.

Single copy price: \$69.00

Obtain an electronic copy from: dorf@aptech.org

Order from: Debra Orf, (703) 264-7200, dorf@aptech.org

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

APT (ASC CGATS) (Association for Print Technologies)

Reaffirmation

BSR CGATS/ISO 15930-6-2004 (R201x), Graphic technology - Prepress digital data exchange using PDF - Part 6: Complete exchange printing data suitable for colour-manage workflows using PDF 1.4 (PDF/X-3) (reaffirmation of ANSI CGATS/ISO 15930-6-2004 (R2009))

This part of CGATS/ISO 15930 specifies the use of the Portable Document Format (PDF) Version 1.4 for the dissemination of complete digital data, in a single exchange, that contains all elements ready for final print reproduction. Color-managed, CMYK, gray, RGB or spot color data are supported.

Single copy price: \$69.00

Obtain an electronic copy from: dorf@aptech.org

Order from: Debra Orf, (703) 264-7200, dorf@aptech.org

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

ASA (ASC S3) (Acoustical Society of America)***New Standard***

BSR ASA S3/SC1.6-201x, Procedure for Determining the Audiograms in Toothed Whales through Evoked Potential Methods (new standard)

Describes measurement procedures for obtaining audiograms in odontocete cetaceans (i.e., toothed whales) via evoked potential methods, specifically, by generation of the auditory steady-state response (ASSR). Methods are specified for the use of sinusoidal amplitude modulated (SAM) tones and trains of tone-bursts. It further establishes standards for reporting data-collection methods, analyses, and hearing thresholds.

Single copy price: \$120.00

Obtain an electronic copy from: asastds@acousticalsociety.org

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

Send comments (with copy to psa@ansi.org) to: asastds@acousticalsociety.org.

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

BSR/ASHRAE Addendum 90.4d-201x, Energy Standard for Data Centers (addenda to ANSI/ASHRAE 90.4-2016)

The intent of this addendum is to reduce inconsistencies between Standard 90.4, Energy Standard for Data Centers, and Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

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

BSR/ASHRAE/ICC/USGBC/IES Addendum 189.1bm-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2017)

This addendum adds the option of modeling district energy systems under the energy performance path in Standard 189.1 that are not wholly contained within the project site boundary.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

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

BSR/ASHRAE/IES Addendum 90.1ac-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum is a housekeeping measure to more clearly specify the application of particular definitions.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

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

BSR/ASHRAE/IES Addendum 90.1ad-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum clarifies the requirements for showing compliance using the methods in Sections 5-10, or Section 11, or Appendix G.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

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

BSR/ASHRAE/IES Addendum 90.1ai-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

As building energy-efficiency standards advance, there is greater reliance on the proper field assembly of materials, and the proper functioning of HVAC, service hot water, power, and lighting controls. This proposal focuses on a balance, with lower cost functional testing or verification for smaller buildings, and more comprehensive commissioning for larger buildings, based on system complexity.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

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

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

Addenda

BSR/ASHRAE/IES Addendum 90.1q-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2016)

This addendum provides revisions to the mandatory provisions of Sections 5.4.3, Air Leakage; 5.5, Prescriptive Requirements; 5.8, Product Information and Installation Requirements; and 5.9, Inspection and Verification to clarify how the standard is to be used, assign proper weight to continuous air barrier performance, and to revise the baseline line-air leakage performance.

Single copy price: \$35.00

Obtain an electronic copy from: standards.section@ashrae.org

Order from: standards.section@ashrae.org

Send comments (with copy to 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.)

Withdrawal

ANSI/ASHRAE Standard 149-2013, Laboratory Methods of Testing Fans Used to Exhaust Smoke in Smoke Management Systems (withdrawal of ANSI/ASHRAE Standard 149-2013)

This standard establishes uniform methods of laboratory testing and test documentation for fans used to exhaust smoke in smoke management systems. AMCA International developed a certification based on this standard and there appeared to be no interest. It is believed that this standard is no longer warranted as it has no reported use.

Single copy price: \$35.00

Obtain an electronic copy from: <http://www.ashrae.org/standards-research--technology/public-review-drafts>

Order from: standards.section@ashrae.org

Send comments (with copy to psa@ansi.org) to: <http://www.ashrae.org/standards-research--technology/public-review-drafts>

BHMA (Builders Hardware Manufacturers Association)

Revision

BSR/BHMA A156.24-201x, Delayed Egress Locking Systems (revision of ANSI/BHMA A156.24-2012)

This standard covers products used in connection with conventional exit devices or locks causing the doors to remain locked after releasing actuation for a predetermined length of time. Performance criteria are included for functional, cycle, operational, fail-safe and overload requirements.

Single copy price: \$36.00 (Nonmembers)/\$18.00 (BHMA Members)

Obtain an electronic copy from: mtierney@kellencompany.com

Order from: Mike Tierney

Send comments (with copy to psa@ansi.org) to: mtierney@kellencompany.com

ISEA (International Safety Equipment Association)

New Standard

BSR/ISEA 121-201x, Dropped Object Prevention Solutions (new standard)

This standard establishes minimum design, performance, testing, and labeling requirements for solutions that reduce dropped objects incidents in industrial and occupational settings. These solutions include anchor attachments, tool attachments, tool tethers and containers. Dropped objects include hand tools, instrumentation, small parts, structural components and other items that have to be transferred and used at heights. It does not address passive preventative solutions such as netting, barricades and toe boards, nor does it address protective solutions for dropped objects that minimize damage from falling objects

Single copy price: \$20.00

Obtain an electronic copy from: cfargo@safetysafetyequipment.org

Send comments (with copy to psa@ansi.org) to: cfargo@safetysafetyequipment.org

MHI (ASC MHC) (Material Handling Industry)

Reaffirmation

BSR MH10.8.12-2011 (R201x), Standard for Material Handling - Component Marking (reaffirmation of ANSI MH10.8.12-2011)

This standard specifies a transfer structure, syntax, and coding of messages and data formats when using high-capacity ADC media between trading partners, specifically between suppliers and recipients, and where applicable, in support of carrier applications, such as bills of lading and carrier sortation and tracking.

Single copy price: \$50.00

Obtain an electronic copy from: pdavison@mhi.org

Order from: Patrick Davison, (704) 676-1190, pdavison@mhi.org

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

MHI (ASC MHC) (Material Handling Industry)

Reaffirmation

BSR MH10.8.15-201X (R201x), Material Handling - Specification for XML Reader Output from ISO/IEC 15434-formatted AIDC Data (reaffirmation of ANSI MH10.8.15-2011)

This standard specifies, for an Automatic Identification and Data Capture (AIDC) reader manufacturer, the preferred output of an AIDC reader when processing of ISO/IEC 15434 formatted data. The standard is intended to cover the processing of all AIDC media. It specifies that the output be provided in an XML format suitable for display in Internet Explorer and usable in other applications. The specifications are intended to cover the output from processing of all current and future Format Indicators included in ISO/IEC 15434.

Single copy price: \$50.00

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

MHI (Material Handling Industry)**New Standard**

BSR/MHI ECMA 35-201X, Electrification Systems for Electric Overhead Traveling Cranes (new standard)

This standard provides minimum requirements and guidelines for alternating current (AC) and direct current (DC) electrification systems for electric overhead, monorail, and gantry traveling cranes. Electrification systems include: conductor bars; festoon systems; cable chains; spring-driven reels; and motor-driven wheels.

Single copy price: \$50.00

Obtain an electronic copy from: www.mhi.org

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

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

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

Single copy price: \$25.00 (NECA members)/\$50.00 (non-members)

Obtain an electronic copy from: neis@necanet.org

Order from: Aga Golriz, (301) 215-4549, Aga.golriz@necanet.org

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

NEMA (ASC C78) (National Electrical Manufacturers Association)**New Standard**

BSR C78.62612-201x, Standard for Electric Lamps - Self-ballasted LED Lamps - Performance Specifications (new standard)

This Standard specifies the performance requirements, together with the test methods and conditions, required to show compliance of LED lamps with integral means for stable operation, intended for domestic and similar general lighting purposes.

Single copy price: \$50.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

Order from: Michael Erbesfeld, 703-841-3262, Michael.Erbesfeld@nema.org

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

NEMA (ASC C78) (National Electrical Manufacturers Association)**New Standard**

BSR C78.62717-201x, Standard for Electric Lamps - LED modules for general lighting - Performance Requirements (new standard)

This Standard specifies the performance requirements for LED modules, together with the test methods and conditions, required to show compliance with this standard.

Single copy price: \$50.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

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

NEMA (ASC C78) (National Electrical Manufacturers Association)**Stabilized Maintenance**

BSR C78.LL4-2003 (S201x), Standard for Electric Lamps - Procedures for Incandescent Lamp Sample Preparation and the Toxicity Characteristic Leaching Procedure (stabilized maintenance of ANSI C78.LL4-2003 (R2011))

Procedures for preparation of incandescent lamps for Toxicity Characteristic Leaching Procedure (TCLP) are presented. These procedures are intended to supplement the TCLP by supplying specific instructions for size reduction and for other critical procedures specific to the testing of incandescent lamps. This standard specifically covers common incandescent lamp types. Additional standards have been prepared or are in preparation for fluorescent lamps, high-intensity discharge lamps, and other types that require specific sample preparation instructions because of their design or construction. The protocol is grouped to include general requirements, lamp preparation, leaching, filtration, storage, and leaching vessel reuse.

Single copy price: \$50.00

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NEMA (ASC C78) (National Electrical Manufacturers Association)**Stabilized Maintenance**

BSR C78.30-1997 (S201x), Standard for Electric Lamps - Procedure for Use in Preparation of Lamp Space Drawings (stabilized maintenance of ANSI C78.30-1997 (R2011))

This standard describes the procedures to be followed for the construction of lamp space drawings.

Single copy price: \$205.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

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

NEMA (ASC C78) (National Electrical Manufacturers Association)**Stabilized Maintenance**

BSR C78.389-1989 (S201x), Electric Lamps - High-Intensity Discharge - Methods of Measuring Characteristics (stabilized maintenance of ANSI C78.389-1989 (R2009))

This standard describes the procedures to be followed and the precautions to be observed in measuring the electrical characteristics of high-intensity discharge lamps as specified in the American National Standard Specifications for Mercury (Hg), High-pressure Sodium (HPS) and Metal Halide (MH) Lamps, as referenced in clause 2, Normative references. It is the purpose of this standard to outline methods of measurement that will make it possible to obtain reproducible and accurate measurements of high-intensity discharge lamp characteristics. Deviations from the procedures given in this standard are permissible for production or other testing, provided that the methods used give results in substantial agreement with the methods given in this standard. In cases of doubt, reference shall be made to the methods specified in the appropriate American National Standard, referenced in clause 2, to establish the validity of the results obtained by any alternate procedure.

Single copy price: \$205.00

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

NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.1432-1997 (S201x), Standard for electric lamps - Tungsten-Halogen Lamps with GZ9.5 Two-Pin, Prefocus Bases and 36.5mm Nominal Light Center Length (stabilized maintenance of ANSI C78.1432-1997 (R2011))

This standard defines the dimensional limits and other physical characteristics required to ensure the interchangeability and to assist in the proper application of a specific category of lamps. This category is tungsten-halogen lamps with GZ9.5 two-pin prefocus bases and 36.5 mm (1.5 inches) nominal light center length. Lamps of various design voltages are included. Lamps with the specifications listed in this standard are intended for projector, stage, and studio applications. The grouping of lamps in this standard is based on general physical characteristics. It does not imply that the lamps listed are interchangeable with each other in particular application.

Single copy price: \$50.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.1433-2001 (S201x), Standard for Electric Lamps - Two-inch (51mm) Dichroic Coated Integral Reflector, Rim Reference, Tungsten Halogen Large Screen Projection Lamps with GX5.3 Bases (stabilized maintenance of ANSI C78.1433-2001 (R2011))

This standard consolidates previous standards for certain low-voltage two-inch (51mm) dichroic coated integral reflector, rim reference tungsten halogen lamp types with GX5.3 bases designed for large screen projection systems and used in 8mm projection, 16mm projection, slide projector, photo enlarger, and printing applications. The lamp types contained in this standard are not to be considered as interchangeable although they will all physically fit into two-inch integral rim reference centering systems and common GX5.3 lampholders. Photometry performance of each lamp depends upon the photometry appraisal system for which it was designed as well as the system in which the lamp is used. Photometry appraisal and end-use systems may or may not be the same. Two-inch (51mm) integral reflector, rim reference tungsten-halogen lamps with GX5.3 bases having ANSI lamp designations DDM, EJJ, ELB, and ELC are included in this standard.

Single copy price: \$100.00

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.1434-2001 (S201x), Standard for Electric Lamps - Condensing Dichroic Coated Integral Reflector Side Pin Tungsten Halogen Projection Lamps with GX7.9 Bases (stabilized maintenance of ANSI C78.1434-2001 (R2011))

This standard consolidates previous standards for certain low-voltage condensing dichroic-coated integral reflector side-pin tungsten halogen projection lamps with GX7.9 bases designed for large-screen projection systems and used in 8mm and 16mm projector applications. The lamp types contained in this standard are not to be considered as interchangeable although they may physically fit into systems with GX7.9 lampholders. Photometry performance of each lamp depends upon the photometry appraisal system for which it was designed as well as the system in which the lamp is used. Photometry appraisal and end-use systems may or may not be the same. Condensing integral reflector side-pin tungsten-halogen projection lamps with GX7.9 bases having the ANSI lamp designations DNF and EMM are included in this standard.

Single copy price: \$110.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.1435-2002 (S201x), Standard for Electric Lamps - Projection Lamps - Tungsten-Halogen Lamps with G5.3 Bases (stabilized maintenance of ANSI C78.1435-2002 (R2011))

This standard consolidates projection lamps with G5.3 bases into a single standard. The lamps contained in this standard are not to be considered as interchangeable, although physically they will all fit the common G5.3 lampholders. The photometry of each lamp is dependent upon the system for which it was designed and on the system in which it is used. Representative photometric values are found in Table 2. Tungsten-halogen lamps with G5.3 bases having the ANSI lamp designations EML and EYB are covered.

Single copy price: \$50.00

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.60432.1-2003 (S201x), Standard for Electric Lamps - Incandescent Lamps - Safety Specifications - Part 1: Tungsten Filament Lamps for Domestic and Similar General Lighting Purposes (stabilized maintenance of ANSI C78.60432.1-2003 (R2011))

An IEC standard (IEC 60432-1) has been adopted as a Nationally Acknowledged International Standard with specific deviations for use in the United States. Chapter 1 describes the deviations. Chapter 2 provides a reference to the version of the IEC standard being adopted.

Single copy price: \$50.00

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.60432.2-2004 (S201x), Standard for Electric Lamps - Incandescent Lamps - Safety Specifications - Part 2: Tungsten Halogen Lamps for Domestic and Similar General Lighting Purposes (stabilized maintenance of ANSI C78.60432.2-2004 (R2011))

An IEC standard (IEC 60432-2) has been adopted as a Nationally Acknowledged International Standard with specific deviations for use in the United States. Chapter 1 describes the deviations. Chapter 2 provides a reference to the version of the IEC standard being adopted.

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Stabilized Maintenance

BSR C78.60432.3-2007 (S201x), Standard for Electric Lamps - Incandescent Lamps Safety Specifications - Part 3: Tungsten Halogen Lamps (Non-Vehicle) (stabilized maintenance of ANSI C78.60432.3-2007 (R2011))

An IEC standard (IEC 60432-3) has been adopted as a Nationally Acknowledged International Standard with specific deviations for use in the United States. Chapter 1 describes the deviations. Chapter 2 provides a reference to the version of the IEC standard being adopted.

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NEMA (ASC C78) (National Electrical Manufacturers Association)

Withdrawal

ANSI C78.370/390 lcd-2002 (R2011), Standard for Electric Lamps - Amendments to ANSI C78.370-1997 and ANSI C78.390-1998 (withdrawal of ANSI C78.370/390 lcd-2002 (R2011))

Amendments to ANSI C78.370-1997 and ANSI C78.390-1998.

Single copy price: \$50.00

Obtain an electronic copy from: michael.erbesfeld@nema.org

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

SPRI (Single Ply Roofing Institute)

Revision

BSR/SPRI VR-1-201x, Procedure for Investigating Resistance Root Penetration on Vegetative Roofs (revision and redesignation of ANSI/GRHC/SPRI VR-1-2011)

This test standard examines the ability of a root protection barrier to prevent root penetration through the waterproofing layer on low-slope single-ply membrane and coated roofs. This procedure includes testing of penetration barriers including all seams edges and methods of attachment. This test standard excludes any lamination, i.e., a separate layer installed over the penetration barrier. The penetration barrier may be, but is not limited to, the waterproofing layer itself. The findings for any membrane or coating which has been tested shall not apply to plants with strong rhizome growth (e.g., bamboo or Chinese reeds varieties).

Single copy price: \$5.00

Obtain an electronic copy from: info@spri.org

Order from: info@spri.org / Linda King

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

TAPPI (Technical Association of the Pulp and Paper Industry)

Reaffirmation

BSR/TAPPI T 815 om-2012 (R201x), Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method) (reaffirmation of ANSI/TAPPI T 815 om-2012)

This method determines the coefficient of static friction of most packaging materials by measuring the angle at which one test surface begins to slide against another inclined surface as the incline is increased at a constant and prescribed rate.

Single copy price: Free

Obtain an electronic copy from: standards@tappi.org

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

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

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 641-2009 (R201X), Standard for Safety for Type L Low-Temperature Venting Systems (reaffirmation of ANSI/UL 641-2009 (R2013))

These requirements cover factory-built vent piping and fittings constructed to provide venting systems for use with gas and liquid fuel-burning appliances that exhaust low-temperature flue gases and that are approved for use with Type L venting systems. The Type L low-temperature venting systems covered by these requirements are intended for installation in accordance with the National Fire Protection Association Standard for Chimneys, Fireplaces, Vents, and Solid-Fuel Burning Appliances, NFPA 211; the International Mechanical Code; and the Uniform Mechanical Code.

Single copy price: Free

Obtain an electronic copy from: <http://www.shopulstandards.com>

Send comments (with copy to psa@ansi.org) to: Gillian Wintonic, (613) 368-4427, Gillian.Wintonic@ul.com

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

BSR/UL 2561-2009 (R201x), Standard for Safety for 1400 Degree Fahrenheit Factory-Built Chimneys (reaffirmation of ANSI/UL 2561-2009 (R2013))

These requirements cover factory-built 1400-degree-Fahrenheit chimneys intended for venting gas, liquid, and solid-fuel-fired appliances in which the maximum continuous flue-gas temperatures do not exceed 1400°F (760°C). Factory-built chimneys are intended for installation in accordance with the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, NFPA 211, and in accordance with codes such as the International Mechanical Code and the Uniform Mechanical Code.

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Comment Deadline: April 10, 2018

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

BSR/ASME B29.400-2001 (R20xx), Combination, H Type Mill Chains and Sprockets (reaffirmation of ANSI/ASME B29.400-2001 (R2013))

This Standard covers "H" type mill chains, combination chains, attachments, and sprocket teeth.

Single copy price: \$72.00

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

For Reaffirmations and Withdrawn standards, please view our catalog at <https://www.asme.org/shop/standards>

Send comments (with copy to psa@ansi.org) to: Lawrence Chan, 212-591-7052, chanl4@asme.org

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

BSR/ASME MFC-14M-2003 (R20xx), Measurement of Fluid Flow Using Small Bore Precision Orifice Meters (reaffirmation of ANSI/ASME MFC-14M-2003 (R2008))

This Standard specifies the geometric and method of use (installation and flowing conditions) for orifice meters of 6 mm to 40 mm (1/4 in. to 1-1/2 in.) line size when they are inserted in a conduit running full. It also gives necessary information for calculating flow rate and its associated uncertainty.

Single copy price: \$40.00

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

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Send comments (with copy to psa@ansi.org) to: April Amaral, AmaralA@asme.org

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

BSR/ASME Y14.3-2012 (R20xx), Orthographic and Pictorial Views (reaffirmation of ANSI/ASME Y14.3-2012)

This Standard establishes the requirements for creating orthographic, and pictorial views on engineering drawing graphic sheets and in models. Specific requirements that are applicable only to constructed or to saved views are defined. Topics include the multiview system of drawing, selection, and arrangement of orthographic views, auxiliary views, section views, details, pictorial views, conventional representation of features with some practices applicable only to constructed views, saved views on drawing graphic sheets, and in models.

Space geometry and analysis, and applications are included in appendices.

Single copy price: \$55.00

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

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

BSR/ASME Y14.6-2001 (R20xx), Screw Thread Representation (reaffirmation of ANSI/ASME Y14.6-2001 (R2013))

This standard establishes requirements for pictorial representation, specification, and dimensioning of screw threads on drawings.

Single copy price: \$48.00

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For Reaffirmations and Withdrawn standards, please view our catalog at <https://www.asme.org/shop/standards>

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ITI (INCITS) (InterNational Committee for Information Technology Standards)**New National Adoption**

INCITS/ISO/IEC 10118-4:1998/AM 1:2014 [201x], Information technology - Security techniques - Hash-functions - Part 4: Hash-functions using modular arithmetic - Amendment 1: Object identifiers (identical national adoption of ISO/IEC 10118-4:1998/AM 1:2014)

Amendment 1 to ISO/IEC 10118-4:1998.

Single copy price: \$19.00

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

New National Adoption

INCITS/ISO/IEC 10118-4:1998/COR 1:2014 [201x], Information technology - Security techniques - Hash-functions - Part 4: Hash-functions using modular arithmetic - Technical Corrigendum 1 (identical national adoption of ISO/IEC 10118-4:1998/COR 1:2014)

Technical Corrigendum 1 to ISO/IEC 10118-4:1998.

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

New National Adoption

INCITS/ISO/IEC 11770-3:2015 [201x], Information technology - Security techniques - Key management - Part 3: Mechanisms using asymmetric techniques (identical national adoption of INCITS/ISO/IEC 11770-3:2008 [R2014] and revision of INCITS/ISO/IEC 11770-3:2008 [R2014])

Defines key management mechanisms based on asymmetric cryptographic techniques. It specifically addresses the use of asymmetric techniques to achieve the following goals: (a) Establish a shared secret key for use in a symmetric cryptographic technique between two entities A and B by key agreement. In a secret key agreement mechanism, the secret key is computed as the result of a data exchange between the two entities A and B. Neither of them should be able to predetermine the value of the shared secret key; (b) establish a shared secret key for use in a symmetric cryptographic technique between two entities A and B via key transport. In a secret key transport mechanism, the secret key is chosen by one entity A and is transferred to another entity B, suitably protected by asymmetric techniques; and (c) make an entity's public key available to other entities via key transport. In a public key transport mechanism, the public key of entity A shall be transferred to other entities in an authenticated way, but not requiring secrecy.

Single copy price: \$232.00

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Send comments (with copy to psa@ansi.org) to: comments@standards.incits.org

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

New National Adoption

INCITS/ISO/IEC 14776-112:2002 [201x], Information technology - Small Computer System Interface (SCSI) - Part 112: Parallel Interface-2 (SPI-2) (identical national adoption of ISO/IEC 14776-112:2002)

Defines the mechanical, electrical, timing, and protocol requirements of the SCSI parallel interface to allow conforming devices to interoperate. The SCSI parallel interface is a local I/O bus that may be operated over a wide range of transfer rates. The objectives of the SCSI parallel interface are to provide host computers with device independence within a class of devices. Thus, different disk drives, tape drives, printers, optical media drives, and other devices may be added to the host computers without requiring modifications to generic system hardware. Provision is made for the addition of special features and functions through the use of vendor-specific options. Reserved areas are provided for future standardization.

Single copy price: \$232.00

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

New National Adoption

INCITS/ISO/IEC 14776-153:2015 [201x], Information technology - Small Computer System Interface (SCSI) - Part 153: Serial Attached SCSI - 2.1 (SAS-2.1) (identical national adoption of ISO/IEC 14776-153:2015)

Defines the physical layer of the Serial Attached SCSI (SAS) interconnect.

Single copy price: \$232.00

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

New National Adoption

INCITS/ISO/IEC 14776-222:2005 [201x], Information technology - Small Computer System Interface (SCSI) - Part 222: Fibre Channel Protocol for SCSI, Second Version (FCP-2) (identical national adoption of ISO/IEC 14776-222:2005)

The SCSI protocol is designed to provide an efficient peer-to-peer I/O bus with the maximum number of hosts and peripherals determined by the bus width (8 or 16). Data may be transferred asynchronously or synchronously at rates that depend primarily on device implementation and cable length. SCSI is an I/O interface that may be operated over a wide range of media and transfer rates. This standard defines a Fibre Channel mapping layer (FC-4) that uses the services, Fibre Channel Framing and Signaling Interface (FC-FS) to transmit SCSI command, data, and status information between a SCSI initiator and a SCSI target. The use of this standard enables the transmission of standard SCSI command formats, the transmission of standard SCSI data and parameter strings, and the receipt of SCSI status and sense information across the Fibre Channel using only the standard Fibre Channel frame and sequence formats. The Fibre Channel protocol operates with Fibre Channel Classes of Service 1, 2, and 3 and operates across Fibre Channel fabrics and arbitrated loops.

Single copy price: \$232.00

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

New National Adoption

INCITS/ISO/IEC 14776-326:2015 [201x], Information technology - Small Computer System Interface (SCSI) - Part 326: Reduced Block Commands (RBC) (identical national adoption of ISO/IEC 14776-326:2015)

Defines a Reduced Block Command set for logical block devices. The Reduced Block Commands, along with the required SPC-2 commands and their restrictions described in this standard, fully specify the complete command set for RBC logical block devices. It provides a command set of reduced requirements and options from SCSI Block Commands (SBC) (ISO/IEC 14776-321) for block devices. The reduced command set is intended to more closely match the functionality required for simple block logical units. The specified commands place no restrictions on device performance. The initial focus of this command set was to enable rigid disks and removable media devices attached to Serial Bus and utilizing SBP-2 (ISO/IEC 14776-232) for command and control.

Single copy price: \$185.00

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

New National Adoption

INCITS/ISO/IEC 14776-331:2002 [201x], Information technology - Small Computer System Interface (SCSI) - Part 331: Stream Commands (SSC) (identical national adoption of ISO/IEC 14776-331:2002)

Defines the command-set extensions to facilitate operation of SCSI stream devices. This standard in conjunction with INCITS 351-2001 fully specifies the standard command set for the SCSI stream device class. The objective of this standard (SSC) is to provide the following: permit an application client to communicate over a SCSI service delivery subsystem, with a logical unit that declares itself to be a sequential access device or printer device in the device-type field of the INQUIRY command response data; define commands unique to each type of SCSI stream device; define commands to manage the operation of SCSI stream devices; and define the differences between the types of SCSI stream devices.

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

New National Adoption

INCITS/ISO/IEC 14776-351:2007 [201x], Information technology - Small Computer System Interface-3 (SCSI-3) - Part 351: Medium Changer Commands (SCSI-3 SMC) (identical national adoption of ISO/IEC 14776-351:2007)

Defines the SCSI commands and model for independent medium changer devices and attached medium changer functions integrated into other SCSI devices. This includes the commands and external behavioral characteristics of a device server and the behavior of the attached medium changer commands (SMC).

Single copy price: \$185.00

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

New National Adoption

INCITS/ISO/IEC 14776-362:2006 [201x], Information technology - Small Computer System Interface (SCSI) - Part 362: SCSI Multimedia Commands - 2 (MMC-2) (identical national adoption of ISO/IEC 14776-362:2006)

The Small Computer System Interface (SCSI) protocol is designed to provide an efficient peer-to-peer I/O bus with the maximum number of hosts and peripherals determined by the bus width (8 or 16). This International Standard defines the SCSI command set extensions to access multimedia features for all classes of SCSI devices.

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

New National Adoption

INCITS/ISO/IEC 14776-412:2006 [201x], Information technology - Small Computer System Interface (SCSI) - Part 412: Architecture Model - 2 (SAM-2) (identical national adoption of ISO/IEC 14776-412:2006)

The Small Computer System Interface (SCSI) protocol provides an efficient peer-to-peer I/O bus with the maximum number of hosts and peripherals determined by the bus width (8 or 16). This International Standard specifies common behaviors for SCSI devices.

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

New National Adoption

INCITS/ISO/IEC 14888-2:2008/COR 1:2015 [201x], Information technology - Security techniques - Digital signatures with appendix - Part 2: Integer factorization based mechanisms - Technical Corrigendum 1 (identical national adoption of ISO/IEC 14888-2:2008/COR 1:2015)

Technical Corrigendum to ISO/IEC 14888-2:2008.

Single copy price: Free

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

New National Adoption

INCITS/ISO/IEC 18014-4:2015 [201x], Information technology - Security techniques - Time-stamping services - Part 4: Traceability of time sources (identical national adoption of ISO/IEC 18014-4:2015)

Defines the functionality of the time assessment authority (TAA), describes an overall architecture for providing the time to the time-stamping authority (TSA) and to guarantee the correctness of it through the use of the TAA, and gives technical guidelines for the TAA to provide, and to provide assurance in, a trusted time source to the TSA.

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

New National Adoption

INCITS/ISO/IEC 25185-1:2016 [201x], Identification cards - Integrated circuit card authentication protocols - Part 1: Protocol for Lightweight Authentication of Identity (identical national adoption of ISO/IEC 25185-1:2016)

Provides an authentication protocol suitable for use in physical and logical access control systems based on ICCs and related systems which support standards-based AES-128 and RSA-2048 ciphers and the SHA-256 hashing algorithm. It specifies PLAID and its implementation in sufficient detail to allow any two or more implementations to be interoperable. It does not address how implementations share cryptographic keys, access control system credential records (including revocation) or manage payload entities such as PIN, PINHash, or biometric templates or other payload objects.

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

New National Adoption

INCITS/ISO/IEC 27034-2:2015 [201x], Information technology - Security techniques - Application security - Part 2: Organization normative framework (identical national adoption of ISO/IEC 27034-2:2015)

Provides a detailed description of the Organization Normative Framework and provides guidance to organizations for its implementation.

Single copy price: \$209.00

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

New National Adoption

INCITS/ISO/IEC 17825:2016 [201x], Information technology - Security techniques - Testing methods for the mitigation of non-invasive attack classes against cryptographic modules (identical national adoption of ISO/IEC 17825:2016)

Specifies the non-invasive attack mitigation test metrics for determining conformance to the requirements specified in ISO/IEC 19790 for Security Levels 3 and 4. The test metrics are associated with the security functions specified in ISO/IEC 19790. Testing will be conducted at the defined boundary of the cryptographic module and I/O available at its defined boundary. The test methods used by testing laboratories to test whether the cryptographic module conforms to the requirements specified in ISO/IEC 19790 and the test metrics specified in this International Standard for each of the associated security functions specified in ISO/IEC 19790 are specified in ISO/IEC 24759. The test approach employed in this Standard is an efficient "push-button" approach: the tests are technically sound, repeatable, and have moderate costs.

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

New National Adoption

INCITS/ISO/IEC 17826:2016 [201x], Information technology - Cloud Data Management Interface (CDMI) (identical national adoption of INCITS/ISO/IEC 17826:2012[2014] and revision of INCITS/ISO/IEC 17826:2014)

Specifies the interface to access cloud storage and to manage the data stored therein. It is applicable to developers who are implementing or using cloud storage.

Single copy price: \$232.00

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

New National Adoption

INCITS/ISO/IEC 19637:2016 [201x], Information technology - Sensor network testing framework (identical national adoption of ISO/IEC 19637:2016)

Specifies testing framework for conformance test for heterogeneous sensor networks, generic services between test manager (TMR) and test agent (TA) in the testing framework, and guidance for creating testing platform and enabling the test of different sensor network protocols.

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

New National Adoption

INCITS/ISO/IEC 20648:2016 [201x], Information technology - TLS specification for storage systems (identical national adoption of ISO/IEC 20648:2016)

Details the requirements for use of the Transport Layer Security (TLS) protocol in conjunction with data storage technologies. The requirements set out in this specification are intended to facilitate secure interoperability of storage clients and servers as well as non-storage technologies that may have similar interoperability needs. Standard is relevant to anyone involved in owning, operating, or using data storage devices. This includes senior managers, acquirers of the storage product and service, and other non-technical managers or users, in addition to managers and administrators who have specific responsibilities for information security and/or storage security, storage operation, or who are responsible for an organization's overall security program and security policy development. It is also relevant to anyone involved in the planning, design, and implementation of the architectural aspects of storage security.

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

New National Adoption

INCITS/ISO/IEC 24759:2017 [201x], Information technology - Security techniques - Test requirements for cryptographic modules (identical national adoption of INCITS/ISO/IEC 24759:2014[2014] and revision of INCITS/ISO/IEC 24759:2014 [2014])

Specifies the methods to be used by testing laboratories to test whether the cryptographic module conforms to the requirements specified in ISO/IEC 19790:2012. The methods are developed to provide a high degree of objectivity during the testing process and to ensure consistency across the testing laboratories. Also specifies the requirements for information that vendors provide to testing laboratories as supporting evidence to demonstrate their cryptographic modules' conformity to the requirements specified in ISO/IEC 19790:2012.

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

New National Adoption

INCITS/ISO/IEC 27013:2015 [201x], Information technology - Security techniques - Guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1 (identical national adoption of INCITS/ISO/IEC 27013:2012[2014] and revision of INCITS/ISO/IEC 27013:2012 [2014])

Provides guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1 for those organizations that are intending to either (a) implement ISO/IEC 27001 when ISO/IEC 20000-1 is already implemented, or vice-versa, (b) implement both ISO/IEC 27001 and ISO/IEC 20000-1 together, or (c) integrate existing management systems based on ISO/IEC 27001 and ISO/IEC 20000-1. Also focuses exclusively on the integrated implementation of an information security management system (ISMS) as specified in ISO/IEC 27001 and a service management system (SMS) as specified in ISO/IEC 20000-1. In practice, ISO/IEC 27001 and ISO/IEC 20000-1 can also be integrated with other management system standards, such as ISO 9001 and ISO 14001.

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

New National Adoption

INCITS/ISO/IEC 27042:2015 [201x], Information technology - Security techniques - Guidelines for the analysis and interpretation of digital evidence (identical national adoption of ISO/IEC 27042:2015)

Provides guidance on the analysis and interpretation of digital evidence in a manner which addresses issues of continuity, validity, reproducibility, and repeatability. It encapsulates best practice for selection, design, and implementation of analytical processes and recording sufficient information to allow such processes to be subjected to independent scrutiny when required. It provides guidance on appropriate mechanisms for demonstrating proficiency and competence of the investigative team. Provides a common framework for the analytical and interpretational elements of information-systems security-incident handling, which can be used to assist in the implementation of new methods and provide a minimum common standard for digital evidence produced from such activities.

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

New National Adoption

INCITS/ISO/IEC 29190:2015 [201x], Information technology - Security techniques - Privacy capability assessment model (identical national adoption of ISO/IEC 29190:2015)

Provides organizations with high-level guidance about how to assess their capability to manage privacy-related processes. In particular, it specifies steps in assessing processes to determine privacy capability, specifies a set of levels for privacy capability assessment, provides guidance on the key process areas against which privacy capability can be assessed, provides guidance for those implementing process assessment, and provides guidance on how to integrate the privacy capability assessment into organizations' operations.

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

New National Adoption

INCITS/ISO/IEC 40314:2016 [201x], Information technology - Mathematical Markup Language (MathML) Version 3.0 (identical national adoption of ISO/IEC 40314:2016)

Defines the Mathematical Markup Language, or MathML. MathML is a markup language for describing mathematical notation and capturing both its structure and content. The goal of MathML is to enable mathematics to be served, received, and processed on the World Wide Web, just as HTML has enabled this functionality for text.

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

New National Adoption

INCITS/ISO/IEC 18031:2011/COR 1:2014 [201x], Information technology - Security techniques - Random bit generation - Technical Corrigendum 1 (identical national adoption of ISO/IEC 18031:2011/COR 1:2014)

Technical Corrigendum to ISO/IEC 18031:2011.

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

New National Adoption

INCITS/ISO/IEC 27001:2013/COR 1:2014 [201x], Information technology - Security techniques - Information security management systems - Requirements - Technical Corrigendum 1 (identical national adoption of ISO/IEC 27001:2013/COR 1:2014)

Technical Corrigendum 1 to ISO/IEC 27001:2013.

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

New National Adoption

INCITS/ISO/IEC 27001:2013/COR 2:2015 [201x], Information technology - Security techniques - Information security management systems - Requirements - Technical Corrigendum 2 (identical national adoption of ISO/IEC 27001:2013/COR 2:2015)

Technical Corrigendum 2 to ISO/IEC 27001:2013.

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

New National Adoption

INCITS/ISO/IEC 27002:2013/COR 1:2014 [201x], Information technology - Security techniques - Code of practice for information security controls - Technical Corrigendum 1 (identical national adoption of ISO/IEC 27002:2013/COR 1:2014)

Technical Corrigendum 1 to ISO/IEC 27002:2013.

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

New National Adoption

INCITS/ISO/IEC 27002:2013/COR 2:2015 [201x], Information technology - Security techniques - Code of practice for information security controls - Technical Corrigendum 2 (identical national adoption of ISO/IEC 27002:2013/COR 2:2015)

Technical Corrigendum 2 to ISO/IEC 27002:2013.

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Technical Reports Registered with ANSI

APT (ASC CGATS) (Association for Print Technologies)

CGATS TR 011-2002 (R201x), Graphic technology Package development workflow Design concept through approved production file (reaffirm technical report)

This Technical Report describes a model, or reference, workflow for the packaging development process from the identification of a project through preparation of an approved production file. It defines the total set of information that needs to be addressed in a workflow, yet allows for variations based on individual needs. It is intended for use as a reference in the creation of workflow procedures for specific organizations or products.

Single copy price: \$69.00

Order from: dorf@aptech.org

Send comments (with copy to psa@ansi.org) to: Debra Orf, (703) 264-7200, dorf@aptech.org

Notice of Withdrawn ANS by an ANSI-Accredited Standards Developer

In accordance with clause 4.2.1.3.2 Withdrawal by ANSI-Accredited Standards Developer of the ANSI Essential Requirements, the following American National Standards have been withdrawn as an ANS.

ASTM (ASTM International)

ANSI/ASTM F1865-2017, Specification for Mechanical Cold Expansion Insert Fitting with Compression Sleeve for Cross-Linked Polyethylene (PEX) Tubing

Questions may be directed to: Corice Leonard, (610) 832-9744, accreditation@astm.org

ASTM (ASTM International)

ANSI/ASTM F1961-2017, Specification for Metal Mechanical Cold Flare Compression Fittings with Disc Spring for Crosslinked Polyethylene (PEX) Tubing

Questions may be directed to: Corice Leonard, (610) 832-9744, accreditation@astm.org

ASTM (ASTM International)

ANSI/ASTM F2262-2017, Specification for Crosslinked Polyethylene/Aluminum/Crosslinked Polyethylene Tubing OD Controlled SDR9

Questions may be directed to: Corice Leonard, (610) 832-9744, accreditation@astm.org

NFPA FIRE PROTECTION STANDARDS DOCUMENTATION

Motion Notice Deadline: February 21, 2018

The National Fire Protection Association announces the availability of NFPA Second Draft Report for concurrent review and comment by NFPA and ANSI. The disposition of all comments received are published in the Second Draft Report, located on the document's information page under the next edition tab. The document's specific URL, www.nfpa.org/doc#next (for example www.nfpa.org/101next), can easily access the document's information page. All Notices of Intent to Make A Motion for these documents must be received by February 21, 2018.

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

Comment Deadline: February 21, 2018

NFPA (National Fire Protection Association)

Revision

BSR/NFPA 13-201x, Standard for the Installation of Sprinkler Systems (revision of ANSI/NFPA 13-2015)

This standard shall provide the minimum requirements for the design and installation of automatic fire sprinkler systems and exposure protection sprinkler systems covered within this standard. This standard shall not provide requirements for the design or installation of water-mist fire-protection systems, which are not considered fire-sprinkler systems and are addressed by NFPA 750. This standard is written with the assumption that the sprinkler system shall be designed to protect against a single fire originating within the building.

BSR/NFPA 13D-201x, Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes (revision of ANSI/NFPA 13D-2015)

This standard shall cover the design, installation, and maintenance of automatic sprinkler systems for protection against the fire hazards in one- and two-family dwellings and manufactured homes. This standard shall not provide requirements for the design or installation of water-mist fire-protection systems, which are not considered fire-sprinkler systems and are addressed by NFPA 750. This standard shall be based on the concept that the sprinkler system is designed to protect against a fire originating from a single ignition location.

BSR/NFPA 13R-201x, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies (revision of ANSI/NFPA 13R-2015)

This standard shall cover the design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to and including four stories in height in buildings not exceeding 60 ft (18 m) in height above grade plane. This standard shall be based on the concept that the sprinkler system is designed to protect against a fire originating from a single ignition location. This standard shall not provide requirements for the design or installation of water-mist fire-protection systems, which are not considered fire-sprinkler systems and are addressed by NFPA 750.

BSR/NFPA 24-201x, Standard for the Installation of Private Fire Service Mains and Their Appurtenances (revision of ANSI/NFPA 24-2015)

This standard shall cover the minimum requirements for the installation of private fire service mains and their appurtenances, which include supplying the following: (1) Automatic sprinkler systems, (2) Open sprinkler systems, (3) Water-spray fixed systems, (4) Foam systems, (5) Private hydrants, (6) Monitor nozzles or standpipe systems with reference to water supplies, and (7) Hose houses. This standard shall apply to combined service mains intended to carry water for fire service and other uses. This standard shall not apply to the following situations: (1) Mains under the control of a water utility and (2) Mains providing fire protection and/or domestic water that are privately owned but are operated as a water utility. This standard shall not apply to underground mains serving sprinkler systems designed and installed in accordance with NFPA 13R that are less than 4 in. (100 mm) in nominal diameter. This standard shall not apply to underground mains serving sprinkler systems designed and installed in accordance with NFPA 13D.

BSR/NFPA 30B-201x, Code for the Manufacture and Storage of Aerosol Products (revision of ANSI/NFPA 30B-2014)

This code shall apply to the manufacture, storage, and display of aerosol products as defined in this standard. This code shall not apply to the storage and display of containers whose contents are comprised entirely of LP-Gas products. This code shall not apply to post-consumer processing of aerosol containers. This code shall not apply to containers that do not meet the definition of Aerosol Container (see 3.3.2). Containers that contain a product that meets the definitions in 3.3.1 and 3.3.3, but are larger than the limits specified in 3.3.2, shall not be classified as aerosol products, and this code shall not apply to the manufacture, storage, and display of such products.

BSR/NFPA 40-201x, Standard for the Storage and Handling of Cellulose Nitrate Film (revision of ANSI/NFPA 40-2015)

This standard shall apply to all facilities that are involved with the storage and handling of cellulose nitrate-based film. This standard shall not apply to the storage and handling of film having a base other than cellulose nitrate.

BSR/NFPA 51B-201x, Standard for Fire Prevention during Welding, Cutting, and Other Hot Work (revision of ANSI/NFPA 51B-2013)

This standard shall cover provisions to prevent injury, loss of life, and loss of property from fire or explosion as a result of hot work. Installation and operation of arc cutting and welding equipment and operation of gas cutting and welding equipment shall be in accordance with ANSI Z49.1, Safety in Welding, Cutting, and Allied Processes.

BSR/NFPA 72-201x, National Fire Alarm and Signaling Code (revision of ANSI/NFPA 72-2015)

NFPA 72 covers the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, fire warning equipment and emergency communications systems (ECS), and their components. The provisions of this chapter apply throughout the Code unless otherwise noted.

BSR/NFPA 77-201x, Recommended Practice on Static Electricity (revision of ANSI/NFPA 77-2013)

This recommended practice applies to the identification, assessment, and control of static electricity for purposes of preventing fires and explosions. This recommended practice does not apply directly to shock hazards from static electricity. However, application of the principles set forth in this recommended practice can reduce such shock hazards to personnel. This recommended practice does not apply to lightning. This recommended practice does not apply to stray electrical currents or to induced currents from radio frequency (RF) energy. This recommended practice does not apply to fueling of motor vehicles, marine craft, or aircraft. This recommended practice does not apply to cleanrooms. This recommended practice does not apply to control of static electricity and its hazards as they might affect electronic components or circuits, which have their own requirements.

BSR/NFPA 86-201x, Standard for Ovens and Furnaces (revision of ANSI/NFPA 86-2011)

This standard shall apply to Class A, Class B, Class C, and Class D ovens, dryers, and furnaces; thermal oxidizers; and any other heated enclosure used for processing of materials and related equipment. The terms "ovens," "dryers," and "furnaces" are used interchangeably and shall also apply to other heated enclosures used for processing of materials. Within the scope of this standard, a Class A, Class B, or Class C oven is any heated enclosure operating at approximately atmospheric pressure and used for commercial and industrial processing of materials. A Class A oven shall be permitted to utilize a low-oxygen atmosphere. This standard shall apply to bakery ovens and Class A ovens, in all respects, and where reference is made to ANSI Z50.1, Bakery Equipment - Safety Requirements, those requirements shall apply to bakery oven construction and safety. This standard shall apply to atmosphere generators and atmosphere supply systems serving Class C furnaces and to furnaces with integral quench tanks or molten salt baths. This standard shall apply to Class D ovens and furnaces operating above ambient temperatures to over 5000°F (2760°C) and at pressures normally below atmospheric to 10–8 torr (1.33×10^{-6} Pa).

BSR/NFPA 88A-201x, Standard for Parking Structures (revision of ANSI/NFPA 88A-2011)

This standard shall cover the construction and protection of, as well as the control of hazards in, open and enclosed parking structures. This standard shall not apply to one- and two-family dwellings.

BSR/NFPA 101A-201x, Guide on Alternative Approaches to Life Safety (revision of ANSI/NFPA 101A-2015)

This guide consists of a number of alternative approaches to life safety. Each chapter is a different system independent of the others and is to be used in conjunction with the 2015 edition of NFPA 101. This edition of NFPA 101A contains alternative approaches that are tied to NFPA 101. Each of these systems is recognized by the Life Safety Code, in its Annex A, as a method that can be used to assist the authority having jurisdiction in determining equivalent compliance with various chapters of the Code. The method described in this guide is an index method. Index methods are a type of qualitative risk assessment. Quantitative risk assessments can also be used to evaluate designs that are proposed as alternative approaches to life safety. For information on developing fire risk assessments, see the SFPE Engineering Guide to Fire Risk Assessment. Guidance on reviewing fire risk assessments can be found in NFPA 551. For further information on alternative approaches to fire safety, see "Systems Approach to Fire-Safe Building Design," Section 1, Chapter 9, of the 20th edition of the NFPA Fire Protection Handbook and the SFPE Handbook of Fire Protection Engineering, 4th edition, Section 3, "Hazard Calculations," and Section 5, Chapter 10, "Fire Risk Indexing."

BSR/NFPA 110-201x, Standard for Emergency and Standby Power Systems (revision of ANSI/NFPA 110-2015)

This standard contains requirements covering the performance of emergency and standby power systems providing an alternate source of electrical power to loads in buildings and facilities in the event that the primary power source fails. Power systems covered in this standard include power sources, transfer equipment, controls, supervisory equipment, and all related electrical and mechanical auxiliary and accessory equipment needed to supply electrical power to the load terminals of the transfer equipment. This standard covers installation, maintenance, operation, and testing requirements as they pertain to the performance of the emergency power supply system (EPSS).

BSR/NFPA 291-201x, Recommended Practice for Fire Flow Testing and Marking of Hydrants (revision of ANSI/NFPA 291-2015)

The scope of this document is fire flow testing and marking of hydrants.

BSR/NFPA 306-201x, Standard for the Control of Gas Hazards on Vessels (revision of ANSI/NFPA 306-2013)

This standard applies to vessels that carry or burn as fuel, flammable or combustible liquids. It also applies to vessels that carry or have carried flammable compressed gases, flammable cryogenic liquids, chemicals in bulk, or other products capable of creating a hazardous condition. This standard describes the conditions required before a space can be entered or work can be started, continued, or started and continued on any vessel under construction, alteration, or repair, or on any vessel awaiting shipbreaking. This standard applies to cold work, application or removal of protective coatings, and work involving riveting, welding, burning, or similar fire-producing operations. This standard applies to vessels while in the United States, its territories and possessions, both within and outside of yards for ship construction, ship alteration, ship repair, or shipbreaking. This standard applies specifically to those spaces on vessels that are subject to concentrations of combustible, flammable, and toxic liquids, vapors, gases, and chemicals as described in this standard. This standard is also applicable to those spaces on vessels that might not contain sufficient oxygen to permit safe entry. When requested, the marine chemist shall apply this standard to other spaces to ensure and promote safe working conditions. This standard

BSR/NFPA 484-201x, Standard for Combustible Metals (revision of ANSI/NFPA 484-2012)

This standard shall apply to the production, processing, finishing, handling, recycling, storage, and use of all metals and alloys that are in a form that is capable of combustion or explosion. The procedures in Chapter 4 shall be used to determine whether a metal is in a noncombustible form. This standard also shall apply to operations where metal or metal alloys are subjected to processing or finishing operations that produce combustible powder or dust. Operations where metal or metal alloys are subjected to processing or finishing operations that produce combustible powder or dust shall include, but shall not be limited to, machining, sawing, grinding, buffing, and polishing. Metals, metal alloy parts, and those materials, including scrap, that exhibit combustion characteristics of alkali metals, aluminum, magnesium, tantalum, titanium, or zirconium shall be subject to the requirements of the metal whose combustion characteristics they most closely match. Metals, metal alloy parts, and those materials, including scrap, that do not exhibit combustion characteristics of alkali metals, aluminum, magnesium, niobium, tantalum, titanium, or zirconium are subject to the requirements of Chapter 14. This standard shall not apply to the transportation of metals in any form on public highways and waterways

BSR/NFPA 652-201x, Standard on the Fundamentals of Combustible Dust (revision of ANSI/NFPA 652-2015)

This standard shall provide the basic principles of and requirements for identifying and managing the fire and explosion hazards of combustible dusts and particulate solids.

BSR/NFPA 750-201x, Standard on Water Mist Fire Protection Systems (revision of ANSI/NFPA 750-2014)

This standard contains the minimum requirements for the design, installation, maintenance, and testing of water-mist fire-protection systems. This standard does not provide definitive fire performance criteria, nor does it offer specific guidance on how to design a system to control, suppress, or extinguish a fire. Reliance is placed on the procurement and installation of listed water-mist equipment or systems that have demonstrated performance in fire tests as part of a listing process.

BSR/NFPA 1730-201x, Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations (revision of ANSI/NFPA 1730-2015)

This standard contains minimum requirements relating to the organization and deployment of fire-prevention inspection and code enforcement, plan review, investigation, and public education operations. The requirements address functions and objectives of fire-prevention organization (FPO) service delivery, capability, and resources. This standard contains the minimum requirements of a community risk assessment (CRA), adequate program selection, management of resources, records management, training, communications, and health and safety. This standard addresses the strategic and policy issues involving the organization and deployment of fire-prevention programs and does not address methods for carrying out specific fire-prevention services, activities, and programs.

BSR/NFPA 1852-201x, Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA) (revision of ANSI/NFPA 1852-2012)

This standard shall specify minimum requirements for the selection, care, and maintenance of open-circuit self-contained breathing apparatus (SCBA) and combination SCBA/supplied air respirator (SAR) that are used for respiratory protection during emergency operations in environments where the atmosphere is Immediately Dangerous to Life and Health (IDLH), or could become oxygen deficient or IDLH. This standard shall specify the requirements for SCBA models as detailed in Section 1.3 of this chapter. For fire departments, this standard shall specify the requirements for the SCBA selection, care, and maintenance component of the respiratory protection program required in Section 7.10 of NFPA 1500, Standard on Fire Department Occupational Safety and Health Program.

BSR/NFPA 1917-201x, Standard for Automotive Ambulances (revision of ANSI/NFPA 1917-2015)

This standard shall define the minimum requirements for the design, performance, and testing of new automotive ambulances used for out-of-hospital medical care and patient transport.

BSR/NFPA 1989-201x, Standard on Breathing Air Quality for Emergency Services Respiratory Protection (revision of ANSI/NFPA 1989-2012)

This standard shall specify the minimum requirements for breathing-air quality for emergency services organizations that use atmosphere-supplying respirators for the respiratory protection of their personnel. This standard shall specify the requirements for the breathing-air quality component of the respiratory protection program of any emergency services organization. For fire departments, this standard shall specify the requirements for the breathing-air quality component of the respiratory protection program required by NFPA 1500, Standard on Fire Department Occupational Safety and Health Program.

Call for Members (ANS Consensus Bodies)

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

AAMI (Association for the Advancement of Medical Instrumentation)

Office: 4301 N. Fairfax Dr., Ste 301
Suite 301
Arlington, VA 22203-1633

Contact: *Cliff Bernier*

Phone: (703) 253-8263

Fax: (703) 276-0793

E-mail: cbernier@aami.org

BSR/AAMI RD47-2008 (R201x), Reprocessing of hemodialyzers
(reaffirmation of ANSI/AAMI RD47-2008 (R2013))

ASA (ASC S2) (Acoustical Society of America)

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

Contact: *Neil Stremmel*

Phone: (631) 390-0215

Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR ASA S2.81-201x/Part 14/ISO 21940-14-201x, Mechanical vibration
- Rotor balancing - Part 14: Procedures for assessing balance errors
(identical national adoption of ISO 21940-14:2012)

ASA (ASC S3) (Acoustical Society of America)

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

Contact: *Neil Stremmel*

Phone: (631) 390-0215

Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR ASA S3/SC1.6-201x, Procedure for Determining the Audiograms in
Toothed Whales through Evoked Potential Methods (new standard)

BHMA (Builders Hardware Manufacturers Association)

Office: 355 Lexington Avenue
15th Floor
New York, NY 10017

Contact: *Emily Brochstein*

Phone: (212) 297-2126

Fax: (212) 370-9047

E-mail: ebrochstein@kellencompany.com

BSR/BHMA A156.24-201x, Delayed Egress Locking Systems (revision
of ANSI/BHMA A156.24-2012)

ECIA (Electronic Components Industry Association)

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

Contact: *Laura Donohoe*

Phone: (571) 323-0294

Fax: (571) 323-0245

E-mail: ldonohoe@ecianow.org

BSR/EIA 166-A-201x, Miniature Waveguide Flanges, Unpressurized
Contact Type (CMR 90 to CMR 284) (new standard)

BSR/EIA 271-B-201x, Waveguide flanges - Pressurizeable contact types
for waveguide sizes WR90 to WR2300 (new standard)

BSR/EIA 285-A-201x, Waveguide Flanges - Dual Contact
Pressurizeable and Miniature Type for Waveguide Sizes WR90 to
WR975 (new standard)

BSR/EIA 304-A-201x, Rigid Waveguides (new standard)

BSR/EIA 364-106A-201x, Standing Wave Ratio (SWR) Test Procedure
for Electrical Connectors (revision and redesignation of ANSI/EIA 364
-106-2000 (R2013))

BSR/EIA 364-108A-201x, Impedance, Reflection Coefficient, Return
Loss, and VSWR Measured in the Time and Frequency Domain Test
Procedure for Electrical Connectors, Cable Assemblies or
Interconnection Systems (revision and redesignation of ANSI/EIA 364
-108-2000 (R2013))

IES (Illuminating Engineering Society)

Office: 120 Wall St. 17th Floor
New York, NY 10005

Contact: *Patricia McGillicuddy*

Phone: (917) 913-0027

E-mail: pmcgillicuddy@ies.org

BSR/IES DG-201x, Design Guide for Energy Efficiency Lighting
Programs - Models (new standard)

IICRC (The Institute of Inspection, Cleaning and Restoration Certification)

Office: 4043 South Eastern Avenue
Las Vegas, NV 89119

Contact: *Mili Washington*

Phone: (702) 850-2710

Fax: (360) 693-4858

E-mail: mwashington@iicrcnet.org

BSR/IICRC S560-201x, Standard for the Development of a Scope of
Work and Work Plan in a Water Damaged Environment (new
standard)

BSR/IIIRC S710-201x, Standards for the Development of a Scope of Work in a Fire and Smoke Damaged Environment (new standard)

NSF (NSF International)

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

Contact: *Jason Snider*

Phone: (734) 418-6660

E-mail: jsnider@nsf.org

BSR/NSF 14-201x (i91r1), Plastics Piping System Components and Related Materials (revision of ANSI/NSF 14-2016)

BSR/NSF 49-201x (i92r5), Biosafety Cabinetry: Design, Construction, Performance and Field Certification (revision of ANSI/NSF 49-2016)

BSR/NSF 50-201x (i135r2), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016a)

UL (Underwriters Laboratories, Inc.)

Office: 12 Laboratory Dr.
RTP, NC 27709

Contact: *Gillian Wintonic*

Phone: (613) 368-4427

E-mail: Gillian.Wintonic@ul.com

BSR/UL 641-201x (R201X), Standard for Safety for Type L Low-Temperature Venting Systems (reaffirmation of ANSI/UL 641-2009 (R2013))

BSR/UL 723-201x, Standard for Safety for Test for Surface Burning Characteristics of Building Materials (revision of ANSI/UL 723-2017)

BSR/UL 2523-201X, Standard for Safety for Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters and Boilers (revision of ANSI/UL 2523-2013)

BSR/UL 2561-2009 (R201x), Standard for Safety for 1400 Degree Fahrenheit Factory-Built Chimneys (reaffirmation of ANSI/UL 2561-2009 (R2013))

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.

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.

3-A (3-A Sanitary Standards, Inc.)

Revision

ANSI/3A 00-01-2018, 3-A Sanitary Standard for General Requirements (revision and redesignation of ANSI/3-A 00-00-2014): 2/1/2018

APA (APA - The Engineered Wood Association)

Revision

- * ANSI/APA PRG 320-2018, Standard for Performance-Rated Cross-Laminated Timber (revision of ANSI/APA PRG 320-2017): 2/6/2018

ATIS (Alliance for Telecommunications Industry Solutions)

Stabilized Maintenance

ANSI ATIS 1000654-1996 (S2018), Broadband Integrated Services Digital Network (B-ISDN) - Operations and Maintenance Principles and Functions (stabilized maintenance of ANSI ATIS 1000654-1996 (R2013)): 2/6/2018

ANSI ATIS 1000660-1998 (S2018), Signaling System Number 7 - Call Completion to a Portable Number - Integrated Text (stabilized maintenance of ANSI ATIS 1000660-1998 (R2013)): 2/6/2018

ANSI ATIS 1000665-1997 (S2018), Broadband ISDN - Overview of ANSI B-ISDN NNI Signaling Capability Set 2, Step 1 (stabilized maintenance of ANSI ATIS 1000665-1997 (R2013)): 2/6/2018

ANSI/ATIS 0100001-2004 (S2018), User Plane Security Guidelines and Requirements for ETS (stabilized maintenance of ANSI/ATIS 0100001-2004 (R2013)): 2/6/2018

ANSI/ATIS 0100017-2008 (S2018), Reduced Reference Video Calibration Estimation Method (stabilized maintenance of ANSI/ATIS 0100017-2008 (R2013)): 2/6/2018

ANSI/ATIS 0100020-2008 (S2018), Quantifying the Impact on IP Service Availability from Network Element Outages (stabilized maintenance of ANSI/ATIS 0100020-2008 (R2013)): 2/6/2018

ANSI/ATIS 0100022-2008 (S2018), Priority Classification Levels for Next Generation Networks (stabilized maintenance of ANSI/ATIS 0100022-2008 (R2013)): 2/6/2018

ANSI/ATIS 0100501-1994 (S2018), Network Performance - Tandem Encoding Limits for 32 - kbit/s Adaptive Differential Pulse-Code Modulation (ADPCM) (stabilized maintenance of ANSI/ATIS 0100501-1994 (R2013)): 2/6/2018

ANSI/ATIS 0100508-2003 (S2018), Loss Plan for Digital Networks (stabilized maintenance of ANSI/ATIS 0100508-2003 (R2013)): 2/6/2018

ANSI/ATIS 0100509-1995 (S2018), Packetized Circuit Multiplication Equipment - Interface Specification (stabilized maintenance of ANSI/ATIS 0100509-1995 (R2013)): 2/6/2018

ANSI/ATIS 0100510-1999 (S2018), Network Performance Parameters for Dedicated Digital Services for Rates Up to and Including DS3 - Specifications (stabilized maintenance of ANSI/ATIS 0100510-1999 (R2013)): 2/6/2018

ANSI/ATIS 0100511-2003 (S2018), B-ISDN ATM Layer Cell Transfer Performance (stabilized maintenance of ANSI/ATIS 0100511-2003 (R2013)): 2/6/2018

ANSI/ATIS 0100512-1994 (S2018), Network Performance - Point-to-Point Voice-Grade Special Access Network Voiceband Data Transmission Objectives (stabilized maintenance of ANSI/ATIS 0100512-1994 (R2013)): 2/6/2018

ANSI/ATIS 0100513-2003 (S2018), Frame Relay Data Communication Service - Access, User Information Transfer, Disengagement, and Availability Performance Parameters (stabilized maintenance of ANSI/ATIS 0100513-2003 (R2013)): 2/6/2018

ANSI/ATIS 0100518-1998 (S2018), Objective Measurement of Telephone Band Speech Quality Using Measuring Normalizing Blocks (MNBs) (stabilized maintenance of ANSI/ATIS 0100518-1998 (R2013)): 2/6/2018

ANSI/ATIS 0100519-1999 (S2018), Specifications for Transport of Generic Packets (including MPEG-2 Transport Packets) Over the DS Hierarchy (stabilized maintenance of ANSI/ATIS 0100519-1999 (R2013)): 2/6/2018

ANSI/ATIS 0100524-2004 (S2018), Reliability-Related Metrics and Terminology for Network Elements in Evolving Communications Networks (stabilized maintenance of ANSI/ATIS 0100524-2004 (R2013)): 2/6/2018

ANSI/ATIS 0100801.03-2003 (S2018), Digital Transport of One-Way Video Signals - Parameters for Objective Performance Assessment (stabilized maintenance of ANSI/ATIS 0100801.03-2003 (R2013)): 2/6/2018

ANSI/ATIS 0100803-1998 (S2018), Overview and Reference for GSTN Multimedia Terminals (stabilized maintenance of ANSI/ATIS 0100803-1998 (R2013)): 2/6/2018

NSF (NSF International)

Revision

- * ANSI/NSF 8-2018 (i13r1), Commercial Powered Food Preparation Equipment (revision of ANSI/NSF 8-2012): 1/30/2018
- * ANSI/NSF 40-2018 (i31r2), Residential Wastewater Treatment Systems (revision of ANSI/NSF 40-2013): 1/26/2018
- * ANSI/NSF 173-2018 (i72r1), Dietary Supplements (revision of ANSI/NSF 173-2016): 1/25/2018
- * ANSI/NSF 245-2018 (i12r2), Wastewater treatment systems - Nitrogen reduction (revision of ANSI/NSF 245-2013): 1/26/2018
- * ANSI/NSF 350-2018 (i26r2), Onsite residential and commercial, water reuse treatment systems (revision of ANSI/NSF 350-2017): 1/26/2018
- * ANSI/NSF 350-2018 (i27r2), Onsite residential and commercial, water reuse treatment systems (revision of ANSI/NSF 350-2017): 1/31/2018

SCTE (Society of Cable Telecommunications Engineers)

Revision

ANSI/SCTE 85-1-2017, HMS HE Optics Management Information Base (MIB) Part 1: SCTE-HMS-HE-OPTICAL TRANSMITTER-MIB (revision of ANSI/SCTE 85-1-2009): 2/6/2018

ANSI/SCTE 85-2-2017, HMS HE Optics Management Information Base (MIB) Part 2: SCTE-HMS-HE-OPTICAL RECEIVER-MIB (revision of ANSI/SCTE 85-2-2009): 2/6/2018

ANSI/SCTE 85-4-2017, HMS Common Inside Plant Management Information Base (MIB) SCTE-HMS-HE-OPTICAL-SWITCH-MIB (revision of ANSI/SCTE 85-4-2009): 2/6/2018

ANSI/SCTE 94-1-2017, HMS Common Inside Plant Management Information Base (MIB) SCTE-HMS-HE-RF-AMP-MIB (revision of ANSI/SCTE 94-1-2009): 2/6/2018

UL (Underwriters Laboratories, Inc.)

New Standard

ANSI/UL 486G-2018, Standard for Safety for Sealed Twist-On Connecting Devices (new standard): 1/26/2018

* ANSI/UL 2201-2018, Standard for Tests for Determining CO Emission Rate of Portable Generators (new standard): 1/24/2018

Reaffirmation

ANSI/UL 60730-2-10-2013 (R2018), Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Motor Starting Relays (reaffirmation of ANSI/UL 60730-2-10-2013): 1/23/2018

ANSI/UL 60730-2-11-2013 (R2018), Automatic Electrical Controls for Household and Similar Use; Part 2: Particular Requirements for Energy Regulators (reaffirmation of ANSI/UL 60730-2-11-2013): 1/24/2018

Revision

ANSI/UL 197-2018, Standard for Commercial Electric Cooking Appliances (revision of ANSI/UL 197-2014): 1/26/2018

ANSI/UL 294-2018, Standard for Safety for Access Control System Units (revision of ANSI/UL 294-2013): 1/31/2018

ANSI/UL 294-2018a, Standard for Safety for Access Control System Units (revision of ANSI/UL 294-2013): 1/31/2018

ANSI/UL 636-2018, Standard for Holdup Alarm Units and Systems (revision of ANSI/UL 636-2008 (R2013)): 1/30/2018

ANSI/UL 746D-2018, Standard for Safety for Polymeric Materials - Fabricated Parts (revision of ANSI/UL 746D-2014): 1/26/2018

ANSI/UL 1004-3-2018, Standard for Safety for Thermally Protected Motors (revision of ANSI/UL 1004-3-2015): 1/29/2018

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.

AAFS (American Academy of Forensic Sciences)

Office: 4200 Wisconsin Ave, NW Suite 106-310
Washington, DC 20016

Contact: *Teresa Ambrosius*

E-mail: tambrosius@aafs.org

BSR/ASB Std 027-201x, Crime Scene/Death Investigation Dogs and Sensors - Patrol Dogs: Tracking/Trailing/Area Search/Building Search/Evidence Search of One or More Persons Based on Last Known Position (new standard)

Stakeholders: Forensic canine teams and dogs and sensor professionals.

Project Need: There are no consensus standards for canine teams (canine and handler), specifically dedicated to tracking specific person(s), location(s), and/or article(s) by starting from the last known position. This pertains to trails less than 48 hours old.

To provide standards for the training, certification, and documentation pertaining to canine teams (canine and handler) trained to search for specific person(s), location(s), and/or article(s) by starting from the last known position. This pertains to trails less than 48 hours old.

ASA (ASC S2) (Acoustical Society of America)

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

Contact: *Neil Stremmel*

Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR ASA S2.81-201x/Part 14/ISO 21940-14-201x, Mechanical vibration - Rotor balancing - Part 14: Procedures for assessing balance errors (identical national adoption of ISO 21940-14:2012)

Stakeholders: All industries that manufacture and use rotating machinery, such as automotive, electric power generation, petrochemical, construction, paper, and so on.

Project Need: Currently, there are no national standards covering balancing of rotating machinery. Each industry has their own. This part is full of useful information, which has direct impact on the product quality and which is often omitted in the industry standards.

Specifies the requirements for the following: identifying errors in the unbalance measuring process of a rotor; assessing the identified errors; and taking the errors into account. Specifies balance acceptance criteria, in terms of residual unbalance, for both directly after balancing and for a subsequent check of the balance quality by the user. For the main typical errors, this part lists methods for their reduction in an informative annex.

ASC X9 (Accredited Standards Committee X9, Incorporated)

Office: 275 West Street
Suite 107
Annapolis, MD 21401

Contact: *Ambria Frazier*

E-mail: Ambria.frazier@x9.org

BSR X9.138-201x, Distributed Ledger Technologies Terminology (new standard)

Stakeholders: Financial institutions, product manufacturers, application manufacturers, legislators, regulators, and legal services providers, security, governance, risk management, and compliance professionals.

Project Need: There are many new DLT, blockchain, and smart contract initiatives sprouting up in the U.S. and around the world. Unfortunately, each new effort seems to assign the same terms to different meanings. These various definitions create opportunity for misunderstanding and flux that may impede adoption of this new technology by the financial services. Due to a lack of standards, there are misconceptions about the meanings of security capabilities, conflicts with the long agreed meanings of terms used in contract law, and a lack of understanding of requirements specific to the financial services. A set of definition terms based on those commonly understood and used in the financial services will benefit our industry.

Throughout industry discussion of blockchain standards, there is a common element: a call for a common vocabulary. As blockchain innovation has developed in a myriad of independent efforts, the particular terms utilized have become fractured. A first step toward shared efforts and potential interoperability is a concise glossary of terms. Blockchain and distributed ledger discussions may use industry terms differently. For example, the word "consensus" has a particular relevance to blockchain applications. Nonetheless, there are different methods to achieve consensus and professionals may imbue distinct meanings to the term based on their familiarity with particular methods. A standardized terminology could enable more efficient cooperation and advancement of this technology by ensuring fewer miscommunications. In an effort to advance this work, an X9 study group on blockchain-related technology has developed a list of common terms. The terms in the glossary do not represent an official standard but rather a starting point that may be leveraged by this new work item to establish a terminology standard.

BSR X9.139-201x, Interoperable Method for Distribution of Symmetric Keys Using Asymmetric Techniques: Part 1 - Using Factoring-Based Public Key Cryptography Unilateral Key Transport (new standard)

Stakeholders: SCD vendors, transaction processing hosts, key loading facilities, networks, PCI SSC.

Project Need: To standardize secure remote key distribution of symmetric keys using asymmetric methods; Support all AES keys sizes; Support larger RSA key sizes; ECC support for payload encryption and signature; Improve protocol security; Support multiple key transport in a single message; Secure key load status response; and Interoperable messaging.

This standard will be based on TR-34 and will support interoperable implementations for remote key distribution.

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

Office: 1791 Tullie Circle NE
Atlanta, GA 30329

Contact: *Steven Ferguson*

Fax: (678) 539-2138

E-mail: sferguson@ashrae.org; sreiniche@ashrae.org

BSR/ASHRAE/IAQA/RIA Standard 6000-201x, Standard for Restoration of Buildings Impacted by Combustion Particles (new standard)

Stakeholders: Fire restoration contractors, insurance industry, property owners, lenders, environmental consultants, local emergency managers, general interest, builders.

Project Need: Provides a basis to determine how to perform restoration services of properties and contents, and how to determine services have been successful. The standard will address safety and environmental issues related to fire restoration and the re-occupancy of properties.

This standard specifies methodologies for assessing and restoring building components and indoor air quality impacted by combustion particles from a fire or smoke event.

ECIA (Electronic Components Industry Association)

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

Contact: *Laura Donohoe*

Fax: (571) 323-0245

E-mail: ldonohoe@ecianow.org

BSR/EIA 166-A-201x, Miniature Waveguide Flanges, Unpressurized Contact Type (CMR 90 to CMR 284) (new standard)

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Revise an expired standard and elevate it to and American National Standard.

This standard pertains to miniature unpressurized contact flanges for use with rectangular waveguides as specified in latest issue EIA standard RS-261. It contains a list of waveguide flange assemblies with pertinent drawing dimensions. By specifying assembly dimensions in lieu of detail part drawings, it provides for interchangeability and permits manufacturing flexibility with regard to the method of joining the flange to the waveguide.

BSR/EIA 271-B-201x, Waveguide flanges - Pressurizeable contact types for waveguide sizes WR90 to WR2300 (new standard)

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Update expired standard to reflect current use.

This section of the standard pertains to pressurizable contact flanges for use with rectangular waveguide as specified in the latest issue EIA Standard EIA-261, Rectangular Waveguides (WR10 to WR2300), for the waveguide sizes WR90 through WR650. It contains a list of waveguide flange assemblies together with pertinent drawing dimensions. By specifying assembly dimensions in lieu of detail part drawings, it provides for interchangeability and permits manufacturing flexibility with regard to the method of joining the flange to the waveguide.

BSR/EIA 285-A-201x, Waveguide Flanges - Dual Contact Pressurizeable and Miniature Type for Waveguide Sizes WR90 to WR975 (new standard)

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Revise an expired standard and elevate it to and American National Standard.

This standard pertains to waveguide flanges for the situation where two waveguides are in close proximity, such as short slot hybrids, dual TR tubes, etc., and provides a Dual Contact Pressurizeable Flange for use with two rectangular waveguides per EIA standard RS-261, Rectangular Waveguides (WR10 to WR2300), for the waveguide sizes WR90 through WR975, for both the narrow wall and broad walls of the waveguides adjacent to each other. It also provides for a miniature version for the waveguide sizes from WR90 to WR284. Drawings plus tables showing the actual dimensions are given. By specifying assembly dimensions in lieu of detail part drawings, it provides for interchangeability and permits manufacturing flexibility with regard to the method of joining the flanges to the waveguide.

BSR/EIA 304-A-201x, Rigid Waveguides (new standard)

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Revise an expired standard and elevate it to and American National Standard.

This standard pertains to both single-ridge and double-ridge waveguides, having bandwidth ratios of 2.4 to 1 and 3.6 to 1.

BSR/EIA 364-106A-201x, Standing Wave Ratio (SWR) Test Procedure for Electrical Connectors (revision and redesignation of ANSI/EIA 364-106-2000 (R2013))

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Revise and redesignate the current American National Standard.

This standard establishes test methods to evaluate existing standing wave ratio (SWR) of connectors, coaxial, radio frequency (RF). Measured SWR shall not exceed that specified over the frequency range specified.

BSR/EIA 364-108A-201x, Impedance, Reflection Coefficient, Return Loss, and VSWR Measured in the Time and Frequency Domain Test Procedure for Electrical Connectors, Cable Assemblies or Interconnection Systems (revision and redesignation of ANSI/EIA 364-108-2000 (R2013))

Stakeholders: Electronics, Electrical, and Telecommunications industries.

Project Need: Revise and redesignate the current American National Standard.

This procedure applies to interconnect assemblies, such as electrical connectors, and cable assemblies.

IES (Illuminating Engineering Society)

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New York, NY 10005

Contact: *Patricia McGillicuddy*

E-mail: pmcgillicuddy@ies.org

BSR/IES DG-201x, Design Guide for Energy Efficiency Lighting Programs - Models (new standard)

Stakeholders: State utility commissions, energy efficiency program implementers, LED lighting product manufacturers, lighting control manufacturers and implementers, engineers.

Project Need: Provide reference sources for common Energy Efficiency Lighting Technical Resource Manual (TRM) calculations provided in other IES standards and provide recommended standard lighting calculations and measure lifetimes that would replace the hodgepodge of utility TRM calculations. This document could ultimately act as a standard that state Public Utility Commissions could reference.

(1) Create a design guide which provides best practices for utility lighting rebate program structures and deployment that have the following outcomes: (a) Support positive project outcomes including; health, environmental/related sustainability goals through targeted energy conservation programs; (b) Support best-practice energy-efficiency programs that has defensible research as its base; (2) Create a guide referencing IES standards for lighting efficiency organizations to identify lighting best practices that enable comprehensive energy savings with positive project outcomes; (3) Create a design guide as a reference for utility regulators to administer consistent energy-savings metrics; (4) Create a design guide as a reference for utility regulators on non-energy-related qualitative lighting metrics.

IICRC (The Institute of Inspection, Cleaning and Restoration Certification)

Office: 4043 South Eastern Avenue
Las Vegas, NV 89119

Contact: *Mili Washington*

Fax: (360) 693-4858

E-mail: mwashington@iicrcnet.org

BSR/IICRC S560-201x, Standard for the Development of a Scope of Work and Work Plan in a Water Damaged Environment (new standard)

Stakeholders: Restoration companies and workers; those who investigate or assess abnormal water intrusion and prepare restoration specifications, procedures and protocols, and manage restoration projects, (e.g., indoor environmental professionals (IEPs), and other specialized experts); and other potential materially interested parties (e.g., consumers and occupants, property owners and managers, insurance company representatives, and government and regulatory bodies).

Project Need: To provide measures for preparing a scope of work and work plan in a water-damage restoration project, as this is not specifically covered in any detail in existing Standards.

This document will provide a specific set of practical standards for the development of a scope of work and work plan in a water-damage restoration project.

BSR/IICRC S710-201x, Standards for the Development of a Scope of Work in a Fire and Smoke Damaged Environment (new standard)

Stakeholders: Anyone who performs structural cleaning or restoration; the property, casualty, and liability insurance industry; brokers and agents who write property, casualty, and liability policies; consumers who require the services described by this standard; anyone who represents an insured, or holds a lien on property damaged by fire and smoke.

Project Need: To provide measures for preparing a scope of work in a fire- and smoke-damaged environment, as this is not specifically covered in any detail in existing Standards.

This document will provide a specific set of practical standards for the development of a scope of work in a fire- and smoke-damaged environment.

BSR/IICRC S750-201x, Standard for Fire and Smoke Damaged Personal Items Inventory and Packout (new standard)

Stakeholders: Anyone who performs structural cleaning or restoration; the property, casualty, and liability insurance industry; brokers and agents who write property, casualty, and liability policies; consumers who require the services described by this standard; anyone who represents an insured, or holds a lien on property damaged by fire and smoke.

Project Need: To promote proper methodology and processes for the evaluation, administration, and handling of packing-out personal property.

This document will establish a proper methodology and protocol for an evaluation; documentation of previous damage and conditions; documentation; inventory; packing techniques; packing; transportation; and storage, handling and administration of the pack-out of personal property.

MHI (ASC MHC) (Material Handling Industry)

Office: 8720 Red Oak Blvd. - Ste. 201
Charlotte, NC 28217

Contact: Patrick Davison

Fax: (704) 676-1199

E-mail: pdavison@mhi.org

BSR MH10.8.1-201X, Packaging - Bar code and two-dimensional symbols for shipping, transport and receiving labels (identical national adoption of ISO 15394:2017)

Stakeholders: Material handling, logistics, shipping, consumer goods, packaging.

Project Need: U.S. National Adoption of the International Standard for bar code and two-dimensional symbols for shipping, transport and receiving labels.

This standard specifies the minimum requirements for the design of labels containing linear bar code and two-dimensional symbols on transport units to convey data between trading partners; provides for traceability of transported units using a unique transport unit identifier (license plate); provides guidance on the formatting on the label of data presented in linear bar code, two-dimensional symbol or human-readable form; provides specific recommendations regarding the choice of bar code symbologies, and specifies quality requirements; provides recommendations as to label placement, size and the inclusion of free text and any appropriate graphics; and provides guidance on the selection of the label material.

BSR MH10.8.7-201X, Packaging - Labelling and direct product marking with linear bar code and two-dimensional symbols (identical national adoption of ISO 28219:2017)

Stakeholders: Material handling, logistics, shipping, consumer goods, packaging.

Project Need: U.S. National Adoption of the International Standard for labeling and direct product marketing with linear bar code and two-dimensional symbols.

This standard defines minimum requirements for identifying items; provides guidelines for item marking with machine-readable symbols; covers both labels and direct marking of items; includes testing procedures for label adhesive characteristics and mark durability; provides guidance for the formatting on the label of data presented in linear bar code, two-dimensional symbol or human-readable form; is intended for applications which include, but are not limited to, support of systems that automate the control of items during the processes of: production, inventory, distribution, field service, point of sale, point of care, repair, and is intended to include, but it is not limited to, multiple industries including: automotive, aerospace, chemical, consumer items, electronics, health care, marine, rail, and telecommunications.

NACE (NACE International, The Worldwide Corrosion Authority)

Office: 15835 Park Ten Place
Houston, TX 77084

Contact: Richard Southard

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BSR/NACE SP21422/ISO 11126-201x, Preparation of Steel Substrates before Application of Paints and Related Products - Specifications for Non-Metallic Blast-Cleaning Abrasives (identical national adoption of ISO 11126)

Stakeholders: Manufacturers, specifiers and users of abrasive materials for surface preparation of steel substrates by blast cleaning.

Project Need: There is currently no NACE standard or American National Standard that addresses non-metallic blast-cleaning abrasives for use in preparing steel surfaces for preservation.

ISO 11126 describes a classification of non-metallic blast-cleaning abrasives for the preparation of steel substrates before application of paints and related products. It specifies the characteristics required for the complete designation of such abrasives. Abrasives addressed in the standard include copper refinery slag, coal furnace slag, nickel refinery slag, iron furnace slag, fused aluminum oxide, olivine sand, staurolite, and garnet. The standard applies to abrasives supplied in the "new" or unused condition only. It does not apply to abrasives either during or after use.

NEMA (ASC C81) (National Electrical Manufacturers Association)

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Rosslyn, VA 22209

Contact: Michael Erbesfeld

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E-mail: Michael.Erbesfeld@nema.org

* BSR C81.63-201X, Gauges for Electric Lamp Bases and Lampholders (revision of ANSI C81.63-2007 (R2014))

Stakeholders: Manufacturers, users, test labs, lighting specifiers.

Project Need: This project is needed to reinstate the E26 ANSI (1991) Go & Not-go gauges, as well as reinstate the original ANSI standard sheet No. 3-179-1. Also, this revision will add the IEC GR6d gauges.

This standard sets forth the specifications for gauges for bases (caps) and lampholders for electric lamps.

NEMA (ASC C82) (National Electrical Manufacturers Association)

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Contact: Michael Erbesfeld

Fax: 703-841-3362

E-mail: Michael.Erbesfeld@nema.org

BSR C82.77-2-201X, Standard for Lighting Equipment - Electrostatic Discharge (national adoption with modifications of IEC 61000-4-2)

Stakeholders: Manufacturers, designers, testing labs, and end users.

Project Need: This project is needed to specify details about electrostatic discharge testing for lighting products. This new standard will form a part of the C82.77-X EMC series under development.

This standard specifies electrostatic discharge testing requirements for lighting equipment. It covers all types of lighting equipment used for general illumination (typically found in residential, commercial, and industrial applications) and connected to any of the following commonly distributed 60-Hz alternating current (AC) power line systems: 120 V, Single Phase; 220/230 V, Single Phase; 208/240 V, Single Phase; 277 V, Single Phase; 347 V, Single Phase; and 480 V, Single Phase.

NOTE: These line voltages are nominal and include commonly encountered nameplate variations of the above. As an example, products rated at either 117, 120, or 125 V AC would be covered as nominal 120 V systems. It is anticipated that this standard will be a Nationally Acknowledged International Standard (NAIS) of IEC 61000-4-2 with regional deviations.

NFPA (National Fire Protection Association)

Office: One Batterymarch Park
Quincy, MA 02169

Contact: Dawn Michele Bellis

E-mail: dbellis@nfpa.org

BSR/NFPA 402-201x, Guide for Aircraft Rescue and Fire-Fighting Operations (revision of ANSI/NFPA 402-2012)

Stakeholders: Consumers, special experts, manufacturers, research/testing, users, insurance, installers/maintainers, labor, enforcers.

Project Need: Public interest and need.

This guide provides information relative to aircraft-rescue and fire-fighting operations and procedures for airport and structural fire departments. Statistics indicate that approximately 80 percent of all major commercial aircraft accidents occur in the critical rescue and fire-fighting access area. This is the primary response area for airport-based ARFF services. Approximately 15 percent of the accidents occur in the approach areas. In such instances, the community/mutual services could be the prime responders. Some airport fire departments have the total fire prevention and fire protection responsibility for the entire airport, including structural fire-fighting responsibilities in terminal buildings, aircraft hangars, airport hotels, cargo buildings, and other facilities. Procedures for these fire prevention and protection operations are not covered in this guide.

UL (Underwriters Laboratories, Inc.)

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Research Triangle Park, NC 27709-3995

Contact: Vickie Hinton

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BSR/UL 3100-201X, Standard for Safety for Automated Guided Vehicles (AGVs) (new standard)

Stakeholders: This standard will apply to a large cross-section of groups and individuals. These specific groups would include: producers, supply chain, commercial/industrial users, regulators, and government.

Project Need: UL is seeking ANSI approval on a new standard, UL 3100.

These requirements cover battery-operated automated guided vehicles (AGVs) that are intended to be used indoors. The AGVs covered by this standard include AGVs that perform or support the function of an industrial truck, a guided vehicle (non-load supporting), or a service provision vehicle, as defined within this document. The AGV is intended to be used in accordance with both the Safety Standard for Driverless, Automatic Guided Industrial Vehicles and Automated Functions of Manned Industrial Vehicles, ANSI/ITSDF B56.5-2012, and in accordance with the Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations, NFPA 505. The AGV is battery powered using either lead acid batteries or lithium ion-based batteries that are charged through a conductive system or by battery replacement.

American National Standards Maintained Under Continuous Maintenance

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

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

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

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

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

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

ANSI-Accredited Standards Developers Contact Information

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

3-A 3-A Sanitary Standards, Inc. 6888 Elm Street Suite 2D McLean, VA 22101-3829 Phone: (703) 790-0295 Fax: (703) 761-6284 Web: www.3-a.org	ASA (ASC S3) Acoustical Society of America 1305 Walt Whitman Road, Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Fax: (631) 923-2875 Web: www.acousticalsociety.org	ECIA Electronic Components Industry Association 2214 Rock Hill Road Suite 265 Herndon, VA 20170-4212 Phone: (571) 323-0294 Fax: (571) 323-0245 Web: www.ecianow.org	NACE NACE International, The Worldwide Corrosion Authority 15835 Park Ten Place Houston, TX 77084 Phone: (281) 228-6485 Web: www.nace.org
AAFS American Academy of Forensic Sciences 4200 Wisconsin Ave, NW Suite 106-310 Washington, DC 20016 Phone: (719) 453-1036 Web: www.aafs.org	ASC X9 Accredited Standards Committee X9, Incorporated 275 West Street Suite 107 Annapolis, MD 21401 Phone: (410) 267-7707 Web: www.x9.org	IES Illuminating Engineering Society 120 Wall St., 17th Floor New York, NY 10005 Phone: (917) 913-0027 Web: www.ies.org	NECA National Electrical Contractors Association 3 Bethesda Metro Center Suite 1100 Bethesda, MD 20814 Phone: (301) 215-4549 Web: www.neca-neis.org
AAMI Association for the Advancement of Medical Instrumentation (AAMI) 4301 N. Fairfax Dr. Suite 301 Arlington, VA 22203-1633 Phone: (703) 253-8263 Fax: (703) 276-0793 Web: www.aami.org	ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle NE Atlanta, GA 30329 Phone: (404) 636-8400 Fax: (678) 539-2138 Web: www.ashrae.org	IICRC the Institute of Inspection, Cleaning and Restoration Certification 4043 South Eastern Avenue Las Vegas, NV 89119 Phone: (702) 850-2710 Fax: (360) 693-4858 Web: www.thecleantrust.org	NEMA (ASC C78) National Electrical Manufacturers Association 1300 N. 17th St. Rosslyn, VA 22209 Phone: 703-841-3262 Web: www.nema.org
ABMA (ASC B3) American Bearing Manufacturers Association 330 N. Wabash Avenue Suite 2000 Chicago, IL 60611 Phone: (919) 481-2852 Fax: (919) 827-4587 Web: www.americanbearings.org	ASME American Society of Mechanical Engineers Two Park Avenue New York, NY 10016 Phone: (212) 591-8521 Fax: (212) 591-8501 Web: www.asme.org	ISEA International Safety Equipment Association 1901 North Moore Street Suite 808 Arlington, VA 22209 Phone: (703) 525-1695 Fax: (703) 525-1698 Web: www.safetysystem.org	NEMA (ASC C81) National Electrical Manufacturers Association 1300 N. 17th St., Ste. 900 Rosslyn, VA 22209 Phone: (703) 841-3262 Fax: (703) 841-3362 Web: www.nema.org
APA APA - The Engineered Wood Association 7011 South 19th Street Tacoma, WA 98466 Phone: (253) 620-7467 Fax: (253) 565-7265 Web: www.apawood.org	ATIS Alliance for Telecommunications Industry Solutions 1200 G Street NW Suite 500 Washington, DC 20005 Phone: (202) 434-8840 Web: www.atis.org	ITI (INCITS) InterNational Committee for Information Technology Standards 1101 K Street NW Suite 610 Washington, DC 20005 Phone: (202) 626-5737 Web: www.incits.org	NEMA (ASC C82) National Electrical Manufacturers Association 1300 N 17th St Rosslyn, VA 22209 Phone: 703-841-3262 Fax: 703-841-3362 Web: www.nema.org
APT (ASC CGATS) The Association for Print Technologies 1899 Preston White Drive Reston, VA 20191 Phone: (703) 264-7200 Web: www.printtechnologies.org	BHMA Builders Hardware Manufacturers Association 355 Lexington Avenue 15th Floor New York, NY 10017 Phone: (212) 297-2126 Fax: (212) 370-9047 Web: www.buildershardware.com	MHI Material Handling Industry 8720 Red Oak Blvd. Suite 201 Charlotte, NC 28217 Phone: (704) 714-8755 Fax: (704) 676-1199 Web: www.mhi.org	NFPA National Fire Protection Association One Batterymarch Park Quincy, MA 02169 Phone: (617) 984-7246 Web: www.nfpa.org
ASA (ASC S2) Acoustical Society of America 1305 Walt Whitman Road, Suite 300 Melville, NY 11747 Phone: (631) 390-0215 Fax: (631) 923-2875 Web: www.acousticalsociety.org		MHI (ASC MHC) Material Handling Industry 8720 Red Oak Blvd. - Ste. 201 Charlotte, NC 28217 Phone: (704) 714-8755 Fax: (704) 676-1199 Web: www.mhi.org	NSF NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 418-6660 Web: www.nsf.org

SCTE

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SPRI

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Fax: (781) 647-7222
Web: www.spri.org

TAPPI

Technical Association of the Pulp and
Paper Industry

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Web: www.tappi.org

UL

Underwriters Laboratories, Inc.

12 Laboratory Drive
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Web: www.ul.com



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 IEC documents must be submitted electronically in the approved ISO template and as a Word document as other formats will not be accepted.

Those regarding IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). 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

AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO/DIS 21494, Space systems - Magnetic testing - 2/25/2018, \$88.00

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)

ISO/DIS 20987, Simplified design guidelines for mechanical connections between precast concrete structural elements in buildings - 4/28/2018, \$146.00

CRANES (TC 96)

ISO/DIS 9927-3, Cranes - Inspections - Part 3: Tower cranes - 2/23/2018, \$82.00

ISO/DIS 10245-3, Cranes - Limiting and indicating devices - Part 3: Tower cranes - 2/23/2018, \$58.00

ISO/DIS 12480-3, Cranes - Safe use - Part 3: Tower cranes - 2/23/2018, \$93.00

FLUID POWER SYSTEMS (TC 131)

ISO/DIS 6149-1, Connections for fluid power and general use - Ports and stud ends with ISO 261 threads and O-ring sealing - Part 1: Ports with O-ring seal in truncated housing - 11/9/2024, \$40.00

FREIGHT CONTAINERS (TC 104)

ISO/DIS 1496-3, Series 1 freight containers - Specification and testing - Part 3: Tank containers for liquids, gases and pressurized dry bulk - 2/23/2018, \$102.00

GEOSYNTHETICS (TC 221)

ISO/DIS 12957-1, Geotextiles and geotextile-related products - Determination of friction characteristics - Part 1: Direct shear test - 12/16/2003, \$53.00

INDUSTRIAL AUTOMATION SYSTEMS AND INTEGRATION (TC 184)

ISO/DIS 8000-63, Data quality - Part 63: Data quality management: Process measurement - 2/23/2018, \$93.00

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

ISO/DIS 19902, Petroleum and natural gas industries - Fixed steel offshore structures - 4/21/2018, \$291.00

MECHANICAL TESTING OF METALS (TC 164)

ISO/DIS 7438, Metallic materials - Bend test - 4/28/2018, \$46.00

NUCLEAR ENERGY (TC 85)

ISO/DIS 20046, Radiological protection - Performance criteria for laboratories using fluorescence in Situ Hybridization (FISH) translocation assay for assessment of overexposure to ionizing radiation - 2/25/2018, \$107.00

ISO/DIS 20890-1, In-service inspections for primary coolant circuit components of light water reactors - Part 1: Mechanized ultrasonic testing - 4/26/2018, \$102.00

ISO/DIS 20890-2, In-service inspections for primary coolant circuit components of light water reactors - Part 2: Magnetic particle and penetrant testing - 4/26/2018, \$62.00

ISO/DIS 20890-3, In-service inspections for primary coolant circuit components of light water reactors - Part 3: Hydrostatic testing - 4/26/2018, \$40.00

ISO/DIS 20890-4, In-service inspections for primary coolant circuit components of light water reactors - Part 4: Visual testing - 4/26/2018, \$62.00

ISO/DIS 20890-5, In-service inspections for primary coolant circuit components of light water reactors - Part 5: Eddy current testing of steam generator heating tubes - 4/26/2018, \$71.00

ISO/DIS 20890-6, In-service inspections for primary coolant circuit components of light water reactors - Part 6: Radiographic testing - 4/26/2018, \$112.00

PAINTS AND VARNISHES (TC 35)

ISO/DIS 8130-1, Coating powders - Part 1: Determination of particle size distribution by sieving - 4/27/2018, \$46.00

ISO/DIS 8130-7, Coating powders - Part 7: Determination of loss of mass on stoving - 4/27/2018, \$33.00

ISO/DIS 8130-11, Coating powders - Part 11: Inclined-plane flow test - 4/27/2018, \$33.00

ISO/DIS 8130-12, Coating powders - Part 12: Determination of compatibility - 4/27/2018, \$40.00

ISO/DIS 8130-13, Coating powders - Part 13: Particle size analysis by laser diffraction - 4/27/2018, \$40.00

ISO/DIS 8130-14, Coating powders - Part 14: Terminology - 4/27/2018, \$33.00

PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)

ISO/DIS 22285, Lubricating greases - Determination of oil separation - Pressure filtration method - 2/26/2018, \$53.00

ISO/DIS 22286, Lubricating greases - Determination of the dropping point with an automatic apparatus - 2/26/2018, \$46.00

PLASTICS (TC 61)

ISO/DIS 21702, Measurement of antiviral activity on plastics and other non-porous surfaces - 4/21/2018, \$77.00

ISO/DIS 6721-8, Plastics - Determination of dynamic mechanical properties - Part 8: Longitudinal and shear vibration - Wave-propagation method - 4/29/2018, \$58.00

ISO/DIS 6721-9, Plastics - Determination of dynamic mechanical properties - Part 9: Tensile vibration - Sonic-pulse propagation method - 4/29/2018, \$40.00

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

ISO/DIS 13257, Thermoplastics piping systems for non-pressure applications - Test method for resistance to elevated temperature cycling - 2/23/2018, \$53.00

ROAD VEHICLES (TC 22)

ISO/DIS 20080, Road vehicles - Information for remote diagnostic support - General requirements, definitions and use cases - 2/25/2018, \$146.00

ROLLING BEARINGS (TC 4)

ISO/DIS 9628, Rolling bearings - Insert bearings and eccentric locking collars - Geometrical product specification (GPS) and tolerance values - 4/19/2018, \$98.00

TERMINOLOGY (PRINCIPLES AND COORDINATION) (TC 37)

ISO/DIS 30042, Systems to manage terminology, knowledge and content - TermBase eXchange (TBX) - 2/23/2018, \$112.00

TEXTILES (TC 38)

ISO/DIS 21084, Textiles - Method for determination of alkylphenols (AP) - 4/29/2018, \$58.00

ISO/DIS 20932-1, Textiles - Determination of the elasticity of fabrics - Part 1: Strip tests - 2/25/2018, \$71.00

ISO/DIS 20932-2, Textiles - Determination of the elasticity of fabrics - Part 2: Multiaxial tests - 2/25/2018, \$67.00

ISO/DIS 20932-3, Textiles - Determination of the elasticity of fabrics - Part 3: Narrow fabrics - 2/25/2018, \$71.00

TRADITIONAL CHINESE MEDICINE (TC 249)

ISO/DIS 20487, Traditional Chinese medicine - Test method of single-use acupuncture needle for electrical stimulation - 4/21/2018, \$53.00

TRANSFUSION, INFUSION AND INJECTION EQUIPMENT FOR MEDICAL USE (TC 76)

ISO/DIS 3826-1, Plastics collapsible containers for human blood and blood components - Part 1: Conventional containers - 4/21/2018, \$82.00

ISO/IEC JTC 1, Information Technology

ISO/IEC DIS 14651, Information technology - International string ordering and comparison - Method for comparing character strings and description of the common template tailorable ordering - 2/25/2018, \$125.00

ISO/IEC DIS 20543, Information technology - Security techniques - Test and analysis methods for random bit generators within ISO/IEC 19790 and ISO/IEC 15408 - 4/28/2018, \$112.00

ISO/IEC DIS 90003, Software engineering - Guidelines for the application of ISO 9001:2015 to computer software - 2/23/2018, \$125.00

ISO/IEC DIS 15026-1, Systems and software engineering - Systems and software assurance - Part 1: Concepts and vocabulary - 2/25/2018, \$93.00

ISO/IEC DIS 18033-6, Information technology security techniques - Encryption algorithms - Part 6: Homomorphic encryption - 2/24/2018, \$71.00

ISO/IEC DIS 29167-19, Information technology - Automatic identification and data capture techniques - Part 19: Crypto suite RAMON security services for air interface communications - 4/23/2018, \$155.00

IEC Standards

4/341/NP, PNW 4-341: Terms and Definitions for Turbine Governing Systems, 018/3/2/

9/2374/FDIS, IEC 61375-2-6 ED1: Electronic railway equipment - Train communication network (TCN) - Part 2-6: On-board to ground communication, 2018/3/16

22F/481/CDV, IEC 62747/AMD1 ED1: Terminology for voltage-sourced converters (VSC) for high-voltage direct current (HVDC) systems, 2018/4/27

22F/479/CDV, IEC 62751-2/AMD1 ED1: Power losses in voltage sourced converter (VSC) valves for high-voltage direct current (HVDC) systems - Part 2: Modular multilevel converters, 2018/4/27

22F/480/CDV, IEC 60633 ED3: Terminology for high-voltage direct current (HVDC) transmission, 2018/4/27

23H/398/NP, PNW 23H-398: IEC 62196: Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 5: Dimensional compatibility and interchangeability requirements for DC pin and contact-tube vehicle couplers for DC EV supply equipment where protection relies on electrical separation, 2018/4/27

25/620/FDIS, IEC 60375 ED3: Conventions concerning electric circuits, 2018/3/16

26/648/FDIS, IEC 60974-9 ED2: Arc welding equipment - Part 9: Installation and use, 2018/3/16

27/1058/CD, IEC 60519-1 ED6: Safety in installations for electroheating and electromagnetic processing - Part 1: General requirements, 2018/4/27

32B/677/CD, IEC TR 60269-5/AMD1 ED2: Low-voltage fuses - Part 5: Guidance for the application of low-voltage fuses, 2018/3/30

34/491/FDIS, IEC 62386-216 ED1: Digital addressable lighting interface - Part 216: Particular requirements for control gear - Load referencing (device type 15), 2018/3/16

- 34D/1359/CD, IEC 60598-1/AMD2/FRAG14 ED8: Luminaires - Part 1: General requirements and tests, 2018/4/27
- 34D/1360/CD, IEC 60598-1/AMD2/FRAG15 ED8: Luminaires - Part 1: General requirements and tests, 2018/4/27
- 45A/1179/CDV, IEC 61225 ED3: Nuclear power plants - Instrumentation, control and electrical power systems - Requirements for static uninterruptible DC and AC power supply systems, 2018/4/27
- 45B/894/CD, IEC 63085 ED1: Radiation protection instrumentation - System of spectral identification of liquids in transparent and semitransparent containers, 2018/4/27
- 46/679/FDIS, IEC 62153-4-7/AMD1 ED2: Metallic communication cable test methods - Part 4-7: Electromagnetic compatibility (EMC) - Test method for measuring of transfer impedance ZT and screening attenuation aS or coupling attenuation aC of connectors and assemblies up to and above 3 GHz - Triaxial tube in tube method, 2018/3/16
- 48B/2635/CD, IEC 60352-5 ED5: Solderless connections - Part 5: Press-in connections - General requirements, test methods and practical guidance, 2018/4/27
- 48B/2632/CD, IEC 60352-3 ED2: Solderless connections - Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance, 2018/4/27
- 48B/2633/CD, IEC 60352-4 ED2: Solderless connections - Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance, 2018/4/27
- 51/1212/CDV, IEC 63093-5 ED1: Ferrite cores - Guidelines on dimensions and the limits of surface irregularities - Part 5: EP-cores and associated parts for use in inductors and transformers, 2018/4/27
- 51/1213/CDV, IEC 63093-8 ED1: Ferrite cores - Guidelines on dimensions and the limits of surface irregularities - Part 8: E-cores, 2018/4/27
- 51/1214/CDV, IEC 63093-11 ED1: Ferrite cores - Guidelines on dimensions and the limits of surface irregularities - Part 11: EC-cores for use in power supply applications, 2018/4/27
- 51/1215/CDV, IEC 63093-6 ED1: Ferrite cores - Guidelines on dimensions and the limits of surface irregularities - Part 6: ETD-cores for use in power supplies, 2018/4/27
- 59K/297/FDIS, IEC 60705/AMD2 ED4: Amendment 2 - Household microwave ovens - Methods for measuring performance, 2018/3/16
- 59M/94/CDV, IEC 60704-2-14/AMD1 ED2: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-14: Particular requirements for refrigerators, frozen-food storage cabinets and food freezers, 2018/4/27
- 61H/363/FDIS, IEC 60335-2-86 ED3: Household and similar electrical appliances - Safety - Part 2-86: Particular requirements for electric fishing machines, 2018/3/16
- 62C/713/CD, IEC TR 63183 ED1: Radiotherapy systems and software - Guidance on error and warning messages, 2018/4/27
- 62C/714/DTR, IEC TR 61948-2 ED2: Nuclear medicine instrumentation - Routine tests - Part 2: Scintillation cameras and single photon emission computed tomography imaging, 2018/3/30
- 62C/715/DTR, IEC TR 61948-4 ED2: Nuclear medicine instrumentation - Routine tests - Part 4: Radionuclide calibrators, 2018/3/30
- 65B/1112/NP, PNW 65B-1112: Industrial-process control systems - Recorders, 2018/4/27
- 86A/1849/CDV, IEC 60793-1-40 ED2: Optical fibres - Part 1-40: Attenuation measurement methods, 2018/4/27
- 86C/1501/CDV, IEC 62149-10 ED1: Fibre optic active components and devices - Performance standards - Part 10: RoF (radio over fiber) transceivers for mobile fronthaul, 2018/4/27
- 86C/1506/FDIS, IEC 62343-3-4 ED1: Dynamic modules - Part 3-4: Performance specification templates - Multicast optical switches, 2018/3/16
- 91/1494/NP, PNW 91-1494: Endurance test methods for die attach materials applied to power electronics devices - Part 1: Temperature cycling test method and reliability performance index for Die attach materials applied to discrete type power electronic devices, 2018/4/27
- 100/3050/NP, PNW 100-3050: Measuring methods of blue-light characteristics and related optical performances for visual display terminal, 2018/4/27
- 100/3047/CD, IEC 60728-11 ED5: Cable networks for television signals, sound signals and interactive services - Part 11: Safety (TA 5), 2018/3/30
- 100/3048/DTS, IEC TS 62312-1-1 ED2: Guideline for synchronization of audio and video - Part 1-1: Measurement methods for synchronization of audio and video equipment and systems - General (TA 11), 2018/4/27
- 100/3049/DTS, IEC TS 62312-2 ED2: Guideline for synchronization of audio and video - Part 2: Methods for synchronization of audio and video systems (TA 11), 2018/4/27
- 100/3027/CDV, IEC 63006 ED1: Wireless Power Transfer (WPT) Glossary of Terms (TA 15), 2018/4/27
- 104/787/CD, IEC 60068-3-3 ED2: Environmental testing - Part 3-3: Guidance - Seismic test methods for equipments, 2018/4/27
- 107/329/CD, IEC 62668-1 ED1: Process management for avionics - Counterfeit prevention - Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components, 2018/4/27
- 110/953/NP, PNW 110-953: Future IEC 62977-3-5: Electronic displays - Part 3-5: Evaluation of optical performances - Colour capabilities, 2018/3/30
- 110/951/FDIS, IEC 62715-6-1 ED2: Flexible display devices - Part 6-1: Mechanical test methods - Deformation tests, 2018/3/16
- 113/409/NP, PNW 113-409 ED1: Nanomanufacturing - Key control characteristics - Part 9-1: Spatially resolved magnetic field measurements - Magnetic force microscopy, 2018/4/27
- 114/255/CD, IEC TS 62600-40 ED1: Marine energy - Wave, tidal and other water current converters - Part 40: Acoustic characterization of marine energy converters, 2018/4/27
- 115/183/CD, IEC TR 63127 ED1: Guideline for the System Design of HVDC Converter Stations with Line-Commutated Converters (LCC), 2018/4/27
- 120/120/CD, IEC 62933-5-2 ED1: Electrical energy storage (EES) systems - Part 5-2: Safety requirements for grid integrated EES systems - Electrochemical based systems, 2018/3/30
- CIS/A/1246/CD, CISPR 16-1-4/AMD1/FRAG3 ED4: Fragment 3: Amendment of the large loop antenna system (LLAS) validation and conversion factors and addition of tabular values, 2018/4/27
- CIS/B/700/DC, Proposal for Terms of Reference (ToR) and tasks dedicated to AHG 5 and AHG 6, 2018/4/27
- CIS/B/698/DC, Wireless Power Transfer at a Distance (WPTAAD), 2018/3/16
- JTC1-SC25/1/CDV, ISO/IEC 15067-3-3 ED1: Information technology - Home Electronic System (HES) application model - Part 3-3: Model of distributed energy management agent (EMA) for demand response energy management, 2018/4/27



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. 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 14369:2018](#), Information technology - Programming languages, their environments and system software interfaces - Guidelines for the preparation of language-independent service specifications (LISS), \$209.00

[ISO/IEC TR 29110-5-3:2018](#), Systems and software engineering - Lifecycle profiles for Very Small Entities (VSEs) - Part 5-3: Service delivery guidelines, \$162.00

AIRCRAFT AND SPACE VEHICLES (TC 20)

[ISO 20892:2018](#), Space systems - Launch complexes modernization process - General requirements, \$68.00

ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

[ISO 10524-1:2018](#), Pressure regulators for use with medical gases - Part 1: Pressure regulators and pressure regulators with flow-metering devices, \$162.00

[ISO 10524-2:2018](#), Pressure regulators for use with medical gases - Part 2: Manifold and line pressure regulators, \$162.00

COMMON NAMES FOR PESTICIDES AND OTHER AGROCHEMICALS (TC 81)

[ISO 1750/Amd6:2018](#), Pesticides and other agrochemicals - Common names - Amendment 6: Meptyldinocap, \$19.00

DENTISTRY (TC 106)

[ISO 20126/Amd1:2018](#), Dentistry - Manual toothbrushes - General requirements and test methods - Amendment 1, \$19.00

[ISO 7492:2018](#), Dentistry - Dental explorer, \$68.00

FERROALLOYS (TC 132)

[ISO 6467:2018](#), Ferrovanadium - Determination of vanadium content - Potentiometric method, \$68.00

GAS CYLINDERS (TC 58)

[ISO 11363-1:2018](#), Gas cylinders - 17E and 25E taper threads for connection of valves to gas cylinders - Part 1: Specifications, \$68.00

INTERNAL COMBUSTION ENGINES (TC 70)

[ISO 8528-1:2018](#), Reciprocating internal combustion engine driven alternating current generating sets - Part 1: Application, ratings and performance, \$103.00

MECHANICAL CONTRACEPTIVES (TC 157)

[ISO 11249:2018](#), Copper-bearing intrauterine contraceptive devices - Guidance on the design, execution, analysis and interpretation of clinical studies, \$138.00

MECHANICAL TESTING OF METALS (TC 164)

[ISO 26203-1:2018](#), Metallic materials - Tensile testing at high strain rates - Part 1: Elastic-bar-type systems, \$162.00

PAINTS AND VARNISHES (TC 35)

[ISO 12944-6:2018](#), Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 6: Laboratory performance test methods, \$68.00

[ISO 12944-9:2018](#), Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 9: Protective paint systems and laboratory performance test methods for offshore and related structures, \$138.00

PULLEYS AND BELTS (INCLUDING VEEBELTS) (TC 41)

[ISO 20238:2018](#), Conveyor belts - Drum friction testing, \$68.00

ROAD VEHICLES (TC 22)

[ISO 18541-6:2018](#), Road vehicles - Standardized access to automotive repair and maintenance information (RMI) - Part 6: L-Category vehicle specific RMI use cases and requirements, \$232.00

[ISO 22901-3:2018](#), Road vehicles - Open diagnostic data exchange (ODX) - Part 3: Fault symptom exchange description (FXD), \$232.00

SHIPS AND MARINE TECHNOLOGY (TC 8)

[ISO 21984:2018](#), Ships and marine technology - Guidelines for measurement, evaluation and reporting of vibration with regard to habitability on specific ships, \$68.00

SMALL CRAFT (TC 188)

[ISO 8099-1:2018](#), Small craft - Waste systems - Part 1: Waste water retention, \$68.00

STEEL (TC 17)

[ISO 15461:2018](#), Steel forgings - Testing frequency, sampling conditions and test methods for mechanical tests, \$138.00

[ISO 9328-1:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 1: General requirements, \$103.00

[ISO 9328-2:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 2: Non-alloy and alloy steels with specified elevated temperature properties, \$162.00

[ISO 9328-3:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 3: Weldable fine grain steels, normalized, \$138.00

[ISO 9328-4:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 4: Nickel-alloy steels with specified low temperature properties, \$103.00

[ISO 9328-5:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 5: Weldable fine grain steels, thermomechanically rolled, \$103.00

[ISO 9328-6:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 6: Weldable fine grain steels, quenched and tempered, \$103.00

[ISO 9328-7:2018](#), Steel flat products for pressure purposes - Technical delivery conditions - Part 7: Stainless steels, \$209.00

TRADITIONAL CHINESE MEDICINE (TC 249)

[ISO 21371:2018](#), Traditional Chinese medicine - Labelling requirements of products intended for oral or topical use, \$45.00

TRANSFUSION, INFUSION AND INJECTION EQUIPMENT FOR MEDICAL USE (TC 76)

[ISO 8871-3/Amd1:2018](#), Elastomeric parts for parenterals and for devices for pharmaceutical use - Part 3: Determination of released-particle count- Amendment 1, \$19.00

WELDING AND ALLIED PROCESSES (TC 44)

[ISO 11666:2018](#), Non-destructive testing of welds - Ultrasonic testing - Acceptance levels, \$103.00

ISO Technical Reports

OTHER

[ISO/TR 22281:2018](#), Welding consumables - International Institute of Welding (IIW) position statement on the use of trace element analyses in welding consumable specifications, \$45.00

PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)

[ISO/TR 19591:2018](#), Personal protective equipment for firefighters - Standard terms and definitions, \$45.00

IEC Standards

AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT (TC 100)

[IEC 62684 Ed. 2.0 en:2018](#), Interoperability specifications of common external power supply (EPS) for use with data-enabled mobile telephones, \$47.00

[S+ IEC 62684 Ed. 2.0 en:2018 \(Redline version\)](#), Interoperability specifications of common external power supply (EPS) for use with data-enabled mobile telephones, \$61.00

ELECTROSTATICS (TC 101)

[IEC 61340-4-4 Ed. 3.0 b:2018](#), Electrostatics - Part 4-4: Standard test methods for specific applications - Electrostatic classification of flexible intermediate bulk containers (FIBC), \$281.00

[S+ IEC 61340-4-4 Ed. 3.0 en:2018 \(Redline version\)](#), Electrostatics - Part 4-4: Standard test methods for specific applications - Electrostatic classification of flexible intermediate bulk containers (FIBC), \$366.00

LAMPS AND RELATED EQUIPMENT (TC 34)

[IEC 60238 Amd.1 Ed. 9.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Edison screw lampholders, \$0.00

Proposed Foreign Government Regulations

Call for Comment

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

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

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

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

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

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

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

Information Concerning

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

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

Redesignation of a Proposed ASME Standard

BSRASME Y14.41.1 Now Redesignated as BSR/ASME Y14.47

The designation of BSR/ASME Y14.41.1-201x has been redesignated as BSR/ASME Y14.47-201x.

3D Model Organization Schema (new standard) was listed in the Call-for-Comment section of the 6/30/2017 Standards Action Call for Comment under BSR/ASME Y14.41.1-201x.

Questions may be addressed to ASME; ansibox@asme.org.

Correction to the Title of a Call-for-Comment Listing

BSR/ASB Std 022-201x

The February 2, 2018 Standards Action Call for Comment listing for BSR/ASB Std 022-201x, Standard for Forensic DNA Analysis Training Programs, incorrectly included a "TM" superscript after the word 'laboratories' in the scope of the project. This should have been an apostrophe s as follows: "This standard provides the general requirements for a forensic DNA laboratory's training program in DNA analysis and data interpretation."

ANSI Accredited Standards Developers

Approval of Reaccreditation

American Society of Mechanical Engineers

ANSI's Executive Standards Council has approved the reaccreditation of the American Society of Mechanical Engineers, an ANSI Member and Accredited Standards Developer, under its recently revised Procedures for ASME Codes and Standards Development Committees for documenting consensus on ASME-sponsored American National Standards, effective February 7, 2018. For additional information, please contact: Mr. William Berger, Managing Director, Standards, ASME, Two Park Avenue, 6th Floor, New York, NY 10016-5990; phone: 212.591.8501; e-mail: BergerW@asme.org.

U.S. Technical Advisory Groups

U.S. TAG to a New ISO Technical Committee on Community Scale Resource Oriented Sanitation Treatment Systems

Comment Deadline: March 12, 2018

In accordance with clause 2.4 of the ANSI International Procedures, the American National Standards Institute (with funding from the Bill and Melinda Gates Foundation) has submitted an application for accreditation for a proposed U.S. Technical Advisory Group (TAG) to a new ISO Technical Committee on Community scale resource oriented sanitation treatment systems and a request for approval as TAG Administrator. The proposed TAG will operate using the Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities as contained in Annex A of the ANSI International Procedures. To obtain a copy of the TAG application or to offer comments, please contact: Ms. Sally Seitz, Senior Program Manager, ANSI, 25 West 43rd Street, 4th Floor, New York, NY 10036; phone: 212.642.4918; e-mail: sseitz@ansi.org (please copy jthomps@ansi.org). Please submit your comments by March 12, 2018.



**BSR/ASHRAE Addendum c
to ANSI/ASHRAE Standard 90.4-2016**

Public Review Draft

Proposed Addendum c to Standard 90.4-2016, *Energy Standard for Data Centers*

**First Public Review (February 2018)
(Draft Shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts 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 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.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHRAE 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 corrects the table title of 8.2.1.2 as suggested in a CMP that was accepted as submitted by SSPC 90.4.

[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 c to 90.4-2016

Modify section 8.3 as follows:

8.3 Compliance Path

8.3.1 **Electrical Distribution Systems** for Mechanical Loads. The electrical distribution *systems* serving mechanical loads shall be designed with pathway losses not exceeding 2%; however, these losses shall not be incorporated into the *design ELC* calculations set forth in Section 8 of this standard.

8.3.1.1 Where there are multiple paths for any segment of the electrical distribution *system*, the calculations shall use the paths with the highest losses and/or lowest efficiencies for each segment to demonstrate compliance.

8.3.1.2 The *design ELC* calculations shall use the minimum operating *efficiency* or maximum operating *loss* of each component unless a specific mode of operation (with higher *efficiency* or lower *loss*) is designated on the approved design documents.

8.3.1.3 It shall be permissible to apply corrections for losses and/or efficiencies of each component and/or segment for actual conditions to the extent that those conditions can be demonstrated and such adjustments are in compliance with applicable codes and ordinances (e.g., conductor resistance correction as a function of actual operating temperature).

8.3.1.4 **Incoming Electrical Service Segment.** A segment *loss* value shall be calculated for the *incoming electrical service segment* of the *design electrical loss component*. This value shall be based on all *equipment* efficiencies and resulting losses in this segment at the design load for all downstream *equipment* served.

Exception: Emergency or stand-by power *systems* are not considered a part of the *incoming electrical service segment*, with the exception of individual elements such as associated transfer switches, transformers, or other devices that are also included between the *design ELC demarcation* and the *UPS*.

8.3.1.5 **UPS Segment Efficiency.** *Efficiency* and resulting *loss* through the *UPS segment* shall be calculated at both full and partial loads, depending on configuration, as follows:

- a. For *N*, *N+1*, or *N+n* *UPS* configurations, losses shall be based on the manufacturer’s stated efficiencies at 100% and 50% of the *UPS operational design load*.
- b. For *2N*, *2N+1*, *2(N+1)* or other dual feed *UPS* configurations, the *systems* are each intended to normally operate at no more than half capacity. Therefore, the *UPS* losses shall be based on the manufacturer’s stated efficiencies at 50% and 25% of the *UPS operational design load*. Where *UPS systems* are identical, only one of the *systems* shall be used in the calculation. .

TABLE 8.2.1.1 Maximum *Design Electrical Loss Component (Design ELC)* and *ELC Segments Systems (IT Design Load <100 kW)*^a

UPS Redundancy Configuration	Single Feed UPS (N, N+I, etc.) or No UPS^b		Active Dual Feed UPS (2N, 2N+I, etc.)^c	
Calculation Percentage	100% of IT design load segment ELC	50% of IT design load segment ELC	50% of IT design load segment ELC	25% of IT design load segment ELC
Segments of ELC and Overall ELC	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>
Incoming Electrical Service Segment	15.0%/85.0%	11.0%/89.0%	11.0%/89.0%	10.0%/90.0%
UPS Segment	12.0%/88.0%	14.0%/86.0%	14.0%/86.0%	20.0%/80.0%
ITE Distribution Segment	6.0%/94.0%	4.0%/96.0%	4.0%/96.0%	3.0%/97.0%
Electrical Loss/Efficiency Total	29.7%/70.3%	26.5%/73.5%	26.5%/73.5%	30.2%/69.8%
ELC	0.297	0.265	0.265	0.302

a. **Informative Note:** Example calculations are shown in Informative Appendix C.

b. **Informative Note:** These columns apply to electrical configurations resulting in a single output feed from the *UPS*, irrespective of the number of *UPS* modules that may be paralleled prior to the output feed, or the number of branches or subfeeders into which that output feeder may be divided.

c. **Informative Note:** These columns apply to electrical configurations made up of two distinct and electrically separated *UPS* systems resulting in two distinct and electrically separate output feeds, either of which is capable of independently supporting the total design load. Systems that meet these criteria may be made up of any number of *UPS* modules that are paralleled prior to each output feed. Crossties and/or transfer switches downstream of the independent feeds shall not continually tie the two output sections together.

b.

TABLE 8.2.1.2 Maximum Design Electrical Loss Component (Design ELC) and ELC Segments Systems (IT Design Load \leq 100 kW)^a

UPS Redundancy Configuration	Single Feed UPS (N, N+I, etc.) or No UPS^b		Active Dual Feed UPS (2N, 2N+I, etc.)^c	
Calculation Percentage	100% of IT design load segment ELC	50% of IT design load segment ELC	50% of IT design load segment ELC	25% of IT design load segment ELC
Segments of ELC and Overall ELC	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>	<i>Loss/efficiency</i>
Incoming Electrical Service Segment	15.0%/85.0%	11.0%/89.0%	11.0%/89.0%	10.0%/90.0%
UPS Segment	9.0%/91.0%	10.0%/90.0%	10.0%/90.0%	15.0%/85.0%
ITE Distribution System	5.0%/95.0%	4.0%/96.0%	4.0%/96.0%	3.0%/97.0%
Electrical Loss/Efficiency Total	26.5%/73.5%	23.1%/76.9%	23.1%/76.9%	25.8%/74.2%
ELC	0.265	0.231	0.231	0.258

a. **Informative Note:** Example calculations are shown in Informative Appendix C.

b. **Informative Note:** These columns apply to electrical configurations resulting in a single output feed from the *UPS*, irrespective of the number of *UPS* modules that may be paralleled prior to the output feed, or the number of branches or subfeeders into which that output feeder may be divided.

c. **Informative Note:** These columns apply to electrical configurations made up of two distinct and electrically separated *UPS* systems resulting in two distinct and electrically separate output feeds, either of which is capable of independently supporting the total design load. Systems that meet these criteria may be made up of any number of *UPS* modules that are paralleled prior to each output feed. Crossties and/or transfer switches downstream of the independent feeds shall not continually tie the two output sections together.

b. Where *UPS* systems are not identical, both systems shall be calculated, and the system with the lowest efficiency shall be used to compute the *UPS* segment of the design electrical loss component.

- c. Where *UPS* have more than one mode of operation (e.g., normal and *UPS economy modes*), the mode used in these calculations shall be the same as the mode used as the Basis of Design and so designated on the approved *construction documents*.
- d. Where nonrated *UPS systems* are utilized, the efficiencies and losses shall be as published or provided in writing by the manufacturer.



BSR/ASHRAE Addendum a
ANSI/ASHRAE Standard 15-2016

First Public Review Draft

Safety Standard for Refrigeration Systems

First Public Review (January 2018)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research-technology/public-review-drafts 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.

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FOREWORD

This addendum modifies ASHRAE 15 by making necessary changes to defer regulation of ammonia refrigeration systems to ANSI/IIAR 2. ASHRAE 15 and ANSI/IIAR 2 have historically served as additive standards for regulation of ammonia systems, with ASHRAE addressing general design and IIAR addressing ammonia-specific topics. The arrangement has burdened ASHRAE 15 with a variety of ammonia-specific exceptions, and it challenges designers, engineers, operators, and regulators with the task of deciphering regulations from overlapping standards. These stakeholder groups, which include OSHA and EPA, have questioned the need for two independent standards for ammonia refrigeration systems and have encouraged the elimination of this unnecessary complexity.

In response, a comprehensive rewrite of ANSI/IIAR 2 was completed to consolidate necessary regulations for safe design of ammonia systems into ANSI/IIAR 2. Following publication of the resulting edition of ANSI/IIAR 2-2014, a gap analysis with ASHRAE 15 was conducted to validate ANSI/IIAR 2's suitability to serve as a standalone design standard for ammonia refrigeration.

ANSI/IIAR 2-2014 has since been adopted as a reference standard by all U.S. model fire and mechanical codes. In addition, based on the comprehensive nature of ANSI/IIAR 2-2014, the 2018 International Fire Code no longer references ASHRAE 15 for ammonia systems, and the 2018 Uniform Mechanical Code is proposing to entirely drop requirements for ammonia refrigeration in favor of a mandatory reference to ANSI/IIAR 2. The UMC change recognizes that ANSI/IIAR 2 now includes necessary content to serve as both a code and a standard. The changes proposed by this addendum delete requirements and exceptions that are unique to ammonia and R-717, and add a new mandatory reference to follow ANSI/IIAR 2 for ammonia refrigeration systems.

Note that some of the text of the standard that is not changed but is included so that the proposed changes will make sense to the reader. Only proposed changes are open to public review; text that is not changed is not open for public review.

[Note to Reviewers: This addendum makes proposed changes to the current standard. Some of the text of the standard is not changed but is included so that the proposed changes will make sense to the reader. 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 proposed changes are open to public review; text that is not changed is not open for public review.

2. SCOPE

[2.3 This standard shall not apply to refrigeration systems using ammonia \(R-717\) as the refrigerant.](#)

[Informative Note: See ANSI/IIAR Standard 2 for systems using ammonia \(R-717\).](#)

3. DEFINITIONS

~~sealed ammonia / water absorption system: An absorption system where Ammonia (R-717) is the refrigerant and water (R-718) is the absorbent and all refrigerant containing parts are made permanently tight by welding or brazing.~~

7. RESTRICTIONS ON REFRIGERANT USE**7.2.2 Industrial Occupancies and Refrigerated Rooms.**

e. Open flames and surfaces exceeding 800°F (426.7°C) are not permitted where any Group A2, B2, A3, or B3 refrigerant ~~other than R-717 (ammonia)~~ is used.

f. All electrical equipment conforms to Class 1, Division 2, of NFPA 705 where the quantity of any Group A2, B2, A3, or B3 ~~other than R-717 (ammonia)~~ in an independent circuit would exceed 25% of the lower flammability limit (LFL) upon release to the space based on the volume determined by Section 7.3.

TABLE 7.4 Special Quantity Limits for Sealed Ammonia/Water Absorption and Self-Contained Systems

Type of Refrigeration System	Maximum lb (kg) for Various Occupancies			
	Institutional	Public/Large Mercantile	Residential	Commercial
Sealed Ammonia/Water Absorption System				
In public hallways or lobbies	0 (0)	0 (0)	3.3 (1.5)	3.3 (1.5)
In adjacent outdoor locations	0 (0)	0 (0)	22 (10)	22 (10)
In other than public hallways or lobbies	0 (0)	6.6 (3)	6.6 (3)	22 (10)
Unit Systems				
In other than public hallways or lobbies	0 (0)	0 (0)	6.6 (3)	22 (10)

7.4 Location in a Machinery Room or Outdoors. All components containing refrigerant shall be located either in a machinery room or outdoors, where [the quantity of refrigerant needed exceeds the limits defined by Section 7.2 and Section 7.3](#)

~~a. the quantity of refrigerant needed exceeds the limits defined by Section 7.2 and Section 7.3, or~~

~~b. direct fired absorption equipment, other than sealed absorption systems not exceeding the refrigerant quantity limits indicated in Table 7.4 is used.~~

[Exception: Self-contained systems are permitted outside of a machinery room provided that such systems are not](#)

located in public hallways or lobbies and are limited to the following occupancies and refrigerant quantities:

1. 6.6 pounds (3 kg) of refrigerant where located in residential occupancies.

2. 22 pounds (10 kg) of refrigerant where located in commercial occupancies.

7.5 Additional Restrictions

7.5.1.1 Flammable Refrigerants. The total of all Group A2, B2, A3, and B3 refrigerants ~~other than R-717 (ammonia)~~ shall not exceed 1100 lb (500 kg) without approval by the AHJ.

7.5.1.2 Corridors and Lobbies. Refrigerating systems installed in a public corridor or lobby shall be limited to unit systems containing not more than the quantities of Group A1 or B1 refrigerant indicated in Table 4-1 or 4-2 of ASHRAE Standard 34. ~~either~~

- a. ~~unit systems containing not more than the quantities of Group A1 or B1 refrigerant indicated in Table 4-1 or 4-2 of ASHRAE Standard 34 or~~
- b. ~~sealed absorption and unit systems having refrigerant quantities less than or equal to those indicated in Table 7.4.~~

7.5.2 Applications for Human Comfort. Group A2, A3, B1, B2, and B3 refrigerants shall not be used in high-probability systems for human comfort.

Exceptions:

- 1. This restriction does not apply ~~to sealed absorption and~~ unit systems having refrigerant quantities less than ~~or equal to those indicated in Table 7.4.~~
 - a. 6.6 pounds (3 kg) of refrigerant where located in residential occupancies.
 - b. 22 pounds (10 kg) of refrigerant where located in commercial occupancies.
- 2. This restriction does not apply to industrial occupancies.

8. INSTALLATION RESTRICTIONS

8.11.2.1 Each refrigerating machinery room shall contain a detector, located in an area where refrigerant from a leak will concentrate, that actuates an alarm and mechanical ventilation in accordance with Section 8.11.4 at a value not greater than the corresponding TLV-TWA (or toxicity measure consistent therewith). The alarm shall annunciate visual and audible alarms inside the refrigerating machinery room and outside each entrance to the refrigerating machinery room. The alarms required in this section shall be of the manual reset type with the reset located inside the refrigerating machinery room.

Alarms set at other levels (such as IDLH) and automatic reset alarms are permitted in addition to those required by this section. The meaning of each alarm shall be clearly marked by signage near the annunciators.

Exceptions:

- ~~1. For ammonia, refer to Section 8.12(g).~~
- ~~2. Detectors are not required when only systems using R-718 (water) are located in the refrigerating machinery room.~~

8.11.6 No open flames that use combustion air from the machinery room shall be installed where any refrigerant is used. Combustion equipment shall not be installed in the same machinery room with refrigerant containing equipment except under one of the following conditions:

- a. Combustion air is ducted from outside the machinery room and sealed in such a manner as to prevent any

ASHRAE Addendum a to ANSI/ASHRAE Standard 15-2016, *Safety Standard for Refrigeration Systems*
Publication Public Review Draft

refrigerant leakage from entering the combustion chamber.

- b. A refrigerant detector, conforming to Section 8.11.2.1, is employed to automatically shut down the combustion process in the event of refrigerant leakage.

Exceptions:

1. Machinery rooms where only carbon dioxide (R-744) or water (R-718) is the refrigerant.
2. ~~Machinery rooms where only ammonia (R-717) is the refrigerant and internal combustion engines are used as the prime mover for the compressors.~~

8.12 Machinery Room, Special Requirements. In cases specified in the rules of Section 7.4, a refrigerating machinery room shall meet the following special requirements in addition to those in Section 8.11:

- a. There shall be no flame-producing device or continuously operating hot surface over 800°F (427°C) permanently installed in the room.
- b. Doors communicating with the building shall be approved, self-closing, tight-fitting fire doors.
- c. Walls, floor, and ceiling shall be tight and of noncombustible construction. Walls, floor, and ceiling separating the refrigerating machinery room from other occupied spaces shall be of at least one-hour fire-resistive construction.
- d. Exterior openings, if present, shall not be under any fire escape or any open stairway.
- e. All pipes piercing the interior walls, ceiling, or floor of such rooms shall be tightly sealed to the walls, ceiling, or floor through which they pass.
- f. When refrigerants of Groups A2, A3, B2, and B3 are used, the machinery room shall conform to Class 1, Division 2, of the National Electrical Code.⁵ When refrigerant Groups A1 and B1 are used, the machinery room is not required to meet Class 1, Division 2, of the National Electrical Code.

~~Exception: When ammonia is used, the requirements of Class 1, Division 2, of the National Electrical Code shall not apply, providing the requirements of Section 8.12(h) are met.~~

~~h. When ammonia (R-717) is used, the machinery room is not required to meet Class 1, Division 2, of the National Electrical Code, provided (a) the mechanical ventilation system in the machinery room is run continuously and failure of the mechanical ventilation system actuates an alarm or (b) the machinery room is equipped with a detector, conforming to Section 8.11.2.1, except the detector shall alarm at 1000 ppm.~~

h. i. Remote control of the mechanical equipment in the refrigerating machinery room shall be provided immediately outside the machinery room door solely for the purpose of shutting down the equipment in an emergency. Ventilation fans shall be on a separate electrical circuit and have a control switch located immediately outside the machinery room door.

9. DESIGN AND CONSTRUCTION OF EQUIPMENT AND SYSTEMS

9.1 Materials

9.1.1 Copper and its alloys shall not be used in contact with ammonia except as a component of bronze alloys for bearings or other non-refrigerant containing uses.

9.1.2 ~~Aluminum and its alloys are suitable for use in ammonia systems.~~

Table 9.7.5 Relief Devices Capacity Factor

R-717	0.5 (0.041)
-------	-------------

9.7.8.4.1 Ammonia (R-717). Pressure relief valves serving systems using ammonia as a refrigerant shall discharge in accordance with one of the following:

- a. ~~To atmosphere in accordance with Section 9.7.8.2~~

- ~~b. Internally in accordance with Section 9.7.8.3~~
- ~~c. To a treatment system approved by the authority having jurisdiction~~

INFORMATIVE APPENDIX A

INFORMATIVE REFERENCES

- ~~14. IAR. 2014. IAR Bulletin 114, *Guidelines for Identification of Ammonia Refrigeration Piping and System Components*. Arlington, VA: International Institute of Ammonia Refrigeration.~~

INFORMATIVE APPENDIX C

**METHOD FOR CALCULATING DISCHARGE CAPACITY OF POSITIVE DISPLACEMENT
COMPRESSOR PRESSURE RELIEF DEVICE**

Table C-1 Constants for Calculating Discharge Capacity

R-717	1.422	17.0	358.0	1.28
-------	-------	------	-------	------

Example*Delete the current example in its entirety and add the following.*

Determine the flow capacity of a relief device for a R-410A compressor with a swept volume (Q) of 341 ft³/min (0.1609 m³/s). The compressor is equipped with capacity control that is actuated at 90% of the pressure relief device set pressure and has a minimum regulated flow of 10%.

$$Q = 341 \text{ ft}^3/\text{min} \quad (\text{I-P})$$

$$Q = 0.16095 \text{ m}^3/\text{s} \quad (\text{SI})$$

$$\eta_v = 0.90, \text{ assumed}$$

$$PL = 0.1$$

$$v_{g@50^\circ\text{F}} = 1.1979 \text{ ft}^3/\text{lb}_m \quad (\text{I-P})$$

$$v_{g@10^\circ\text{C}} = 0.0748 \text{ m}^3/\text{kg} \quad (\text{SI})$$

$$W_r = \frac{341 \frac{\text{ft}^3}{\text{min}} \times 0.1 \times 0.9}{1.1979 \frac{\text{ft}^3}{\text{lb}_m}} = 25.62 \frac{\text{lb}_m}{\text{min}} \quad (\text{I-P [see C-1)})$$

$$W_r = \frac{0.1609 \frac{\text{m}^3}{\text{s}} \times 0.1 \times 0.9}{0.0748 \frac{\text{m}^3}{\text{kg}}} = 0.1936 \frac{\text{kg}}{\text{s}} \quad (\text{SI [see C-1)})$$

$$W_a = W_r \times r_w = 25.62 \times 0.62 = 15.88 \frac{\text{lb}_m}{\text{min}} \text{ of air} \quad (\text{I-P [see C-2)})$$

$$W_a = W_r \times r_w = 0.1936 \times 0.62 = 0.12 \frac{\text{kg}}{\text{s}} \text{ of air} \quad (\text{SI [see C-1)})$$

Converting to standard cubic feet per minute (scfm), where $V_a =$ specific volume of air = 13.1 ft³/lb_m (0.818 m³/kg) for dry air at 60°F (15.6°C):

$$\text{SCFM} = 13.1 (15.88) = 208.02 \text{ ft}^3/\text{min} \quad (\text{I-P})$$

$$\text{SCFM} = 0.818 (0.12) = 0.098 \text{ m}^3/\text{s} \quad (\text{SI})$$

Public Review Draft

Proposed Addendum a to Standard 189.1-2017

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

First Public Review (February 2018)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

This revision to ASHRAE 189.1 adds Climate Zones 4A and 4B to those required to meet heat island mitigation criteria in Section 5.3.5.3 for roofs. New research continues to demonstrate that heat islands exist and that they can be substantially mitigated with cool roofs.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketthrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 a to 189.1-2017

Revise Section 5 as follows:

5.3.5 Mitigation of Heat Island Effect

5.3.5.1 Site Hardscape *(no changes proposed)*

5.3.5.2 Walls *(no changes proposed)*

5.3.5.3 Roofs. This section applies to the building and covered parking roof surfaces for *building projects* in Climate Zones 0, 1, 2, ~~and 3~~, 4A, and 4B. A minimum of 75% of the roof surface area shall be covered with products that

- have a minimum three-year-aged *SRI* of 64 in accordance with Section 5.3.5.4 for roofs with a slope of less than or equal to 2:12.
- have a minimum three-year-aged *SRI* of 25 in accordance with Section 5.3.5.4 for roofs with a slope of more than 2:12.

The area occupied by one or more of the following shall be excluded from the calculation to determine the roof surface area required to comply with this section:

- Roof penetrations and associated equipment.
- On-site renewable energy systems, including photovoltaics, solar thermal energy collectors, and required access around the panels or collectors.
- Portions of the roof used to capture heat for building energy technologies.
- Roof decks and rooftop walkways.
- Vegetated terrace and roofing systems complying with Section 5.3.5.5.

Exceptions to 5.3.5.3:

1. *Building projects* where an annual energy analysis simulation demonstrates that the total annual building energy cost and total annual CO₂e, as calculated in accordance with Section 7.5.2, are both a minimum of 2% less for the proposed *roof* than for a *roof* material complying with the *SRI* requirements of Section 5.3.5.3.
2. *Roofs* used to shade or cover parking and *roofs* over *semiheated spaces*, provided that they have a minimum initial *SRI* of 29. A default *SRI* value of 35 for new concrete without added color pigment is allowed to be used instead of measurements.

Public Review Draft

Proposed Addendum b to Standard 189.1-2017

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

First Public Review (February 2018)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

This proposal would limit the use of the “Section 7.4.1.1.2, Alternate Renewables Approach: Reduced On-Site Renewable Energy Systems and Higher-Efficiency Equipment” to building projects that are less than 10,000 square feet or use the simplified mechanical system approach for compliance with ASHRAE 90.1. Larger buildings and buildings with complex mechanical systems will be able to comply with the standard by either complying prescriptively to the on-site renewables requirements in Section 7.4.1.1.1 or calculating trade-offs between energy efficiency and on site renewables by using the performance approach in Section 7.5.

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Addendum b to 189.1-2017

Modify Section 7.4.1.1 as follows:

7.4.1.1 On-Site Renewable Energy Systems. Building projects shall comply with either the Standard Renewables Approach in Section 7.4.1.1.1 or the Alternate Renewables Approach in Section 7.4.1.1.2. Section 7.4.1.1.2 shall apply only to building projects that meet one of the following requirements:

- a. The building project shall comply with ANSI/ASHRAE/IES Standard 90.1 Section 6.3 Simplified Approach Option for HVAC Systems.
- b. The sum of the gross conditioned and semi-heated floor areas of the building project shall be less than 10,000 ft² (930 m²).

7.4.1.1.1 Standard Renewables Approach: Baseline On-Site Renewable Energy Systems. Building projects shall contain on-site renewable energy systems that provide the annual energy production equivalent of not less than 6.0 kBtu/ft² (20 kWh/m²) multiplied by the

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horizontal projection of the *gross roof area* in feet squared (metres squared) for single-story buildings, and not less than 10.0 kBtu/ft² (32 kWh/m²) multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for all other buildings. The annual energy production shall be the combined sum of all *onsite renewable energy systems*. Documentation shall be provided to the *AHJ* that indicates that the *renewable energy certificates (RECs)* associated with the *on-site renewable energy system* will be retained and retired by the *owner*. Where the building *owner* does not have ownership of the *RECs* associated with the *on-site renewable energy system*, the *owner* shall obtain and retire an equal or greater quantity of *RECs*.

Exceptions to 7.4.1.1.1: Buildings that demonstrate compliance with both of the following are not required to contain *on-site renewable energy systems*:

1. An annual daily average incident solar radiation available to a flat plate collector oriented due south at an angle from horizontal equal to the latitude of the collector location less than 4.0 kWh/m²·day (1.2 kBtu/ft²/day), accounting for existing buildings, permanent infrastructure that is not part of the *building project*, topography, and trees.
2. A commitment to purchase renewable electricity products, complying with the Green-e Energy National Standard for Renewable Electricity Products, of at least 7 kWh/ft² (75 kWh/m²) of *conditioned space* each year until the cumulative purchase totals 70 kWh/ft² (750 kWh/m²) of *conditioned space*.

7.4.1.1.2 Alternate Renewables Approach: Reduced On-Site Renewable Energy Systems and Higher-Efficiency Equipment. *Building projects* complying with this approach shall comply with the applicable equipment efficiency requirements in Normative Appendix B, the water-heating efficiency requirements in Section 7.4.4.1, equipment efficiency requirements in Section 7.4.7.1, and the applicable ENERGY STAR[®] requirements in Section 7.4.7.3.2, and shall contain *on-site renewable energy systems* that provide the annual energy production equivalent of not less than 4.0 kBtu/ft² (13 kWh/m²) multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for single-story buildings, and not less than 7.0 kBtu/ft² (22 kWh/m²) multiplied by the horizontal projection of the *gross roof area* in feet squared (metres squared) for all other buildings. The annual energy production shall be the combined sum of all *on-site renewable energy systems*. For equipment listed in Section 7.4.7.3.2 that are also contained in Normative Appendix B, the installed equipment shall comply by meeting or exceeding both requirements.

Documentation shall be provided to the *AHJ* that indicates that the *RECs* associated with the *on-site renewable energy system* will be retained and retired by the *owner*. Where the building *owner* does not have ownership of the *RECs* associated with the *on-site renewable energy system*, the *owner* shall obtain and retire an equal or greater quantity of *RECs*.

Public Review Draft

Proposed Addendum c to Standard 189.1-2017

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

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Foreword

This proposal updates the existing requirements for the VOC content option of paints and coatings by (a) limiting the paint categories that can use the VOC content option; and (b) for paint categories using the VOC content option, requiring them to comply only with the requirements of the California Air Resources Board Suggested Control Measure for Architectural Coatings.

Note: *In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 c to 189.1-2017

Revise Section 8.4.2 as follows:

8.4.2 Materials. Reported emissions or volatile organic compound (VOC) contents specified in the following subsections shall be from a representative product sample, and Emissions testing shall be conducted ~~determined~~ with each product reformulation or at a minimum of every three years.

Exception: Products certified under third-party certification programs as meeting the specific emission ~~or VOC content~~ requirements listed in the following subsections are exempted from ~~this~~ the three-year testing requirement ~~but shall meet all the other requirements as listed.~~

8.4.2.1 Adhesives and Sealants. *(no changes to this section and subsections)*

...

Revise 8.4.2.2 as follows:

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Modify 8.4.2.2 as follows, deleting sections 8.4.2.2.2 a, b and c and replacing them with the paragraph shown below under the 8.4.2.2.2 section heading

8.4.2.2 Paints and Coatings. Products in this category include anticorrosive coatings, basement specialty coatings, concrete/masonry sealers, concrete curing compounds, dry fog coatings, faux finishing coatings, fire resistive coatings, flat and nonflat topcoats, floor coatings, graphic arts (sign) coatings, high temperature coatings, industrial maintenance coatings, low solids coatings, mastie texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, primers, reactive penetrating sealers, recycled coatings, shellacs (clear and opaque), specialty primers, stains, stone consolidants, swimming pool coatings, tub and tile refinishing coatings, undercoaters, waterproofing membranes, wood coatings (clear wood finishes), wood preservatives, and zinc primers. Paints and coatings All architectural coatings, as defined by the California Air Resources Board (CARB) Suggested Control Measure (SCM) for Architectural Coatings, applied on-site on the interior of the building shall meet the following requirements. Flat, nonflat, primer, sealer and undercoater coatings, used on the interior of the building (defined as inside of the weatherproofing system and applied on-site) shall comply with either Section 8.4.2.2.1 or 8.4.2.2.2 Sections 8.4.2.2.1 and 8.4.2.2.2. All other architectural coatings shall comply with either Section 8.4.2.2.1 or 8.4.2.2.2.

8.4.2.2.1 Emissions Requirements Emissions shall be determined according to CDPH/EHLB/Standard Method V1.1 (commonly referred to as California Section 01350) and shall comply with the limit requirements for either office or *classroom spaces* regardless of the *space* type. The emissions testing shall be performed by an ISO/IEC 17025 accredited laboratory that has the CDPH/EHLB/Standard Method V.1.1, U.S. EPA Method TO-17 and ASTM Standard Method D5197 within the scope of its accreditation. Third-party certifiers shall be accredited to ISO/IEC 17065 and have the relevant certification program in the scope of accreditation.

8.4.2.2.2 Volatile Organic Compound (VOC) Content Requirements The VOC content of architectural coatings shall comply with VOC limits of the CARB SCM for Architectural Coatings.

8.4.2.2.2 Volatile Organic Compound (VOC) Content Requirements

- a. The VOC content for flat and non-flat coatings, non-flat high gloss coatings, specialty coatings, basement specialty coatings, concrete/masonry sealers, fire resistive coatings, floor coatings, low solids coatings, primers, sealers and undercoaters, rust preventative coatings, shellacs (clear and opaque), stains, wood coatings, reflective wall coatings, varnishes,

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conjugated oil varnish, lacquer, and clear brushing laquer shall be determined and limited in accordance with ~~Green Seal Standard GS-11~~

- b. ~~The VOC content for concrete curing compounds, dry fog coatings, faux finishing coatings, graphic arts coatings (sign paints), industrial maintenance coatings, mastic texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, reactive penetrating sealers, recycled coatings, specialty primers, wood preservatives, and zinc primers shall be determined and limited in accordance with the California Air Resources Board Suggested Control Measure for Architectural Coatings or SCAQMD Rule 1113r.~~
- c. ~~The VOC content for high temperature coatings, stone consolidants, swimming pool coatings, tub and tile refinishing coatings, and waterproofing membranes primers shall be determined and limited in accordance with the California Air Resources Board Suggested Control Measure for Architectural Coatings.~~

(No changes to remainder of section)

Modify Chapter 11 Normative References as follows:

Green Seal 1001 Connecticut Avenue, NW, Suite 827 Washington, DC 20036-5525, United States 1-202-872-6400; www.greenseal.org		
GS-11, 3.2, October 26, 2015	Green Seal Standard for Paints, Coatings, Stains, and Sealers. Section 3.0: "Product Specific Health and Environmental Requirements"	8.4.2.2.2
California Air Resources Board (CARB) 1001 "T" Street P.O. Box 2815 Sacramento, CA 95812, United States 1-916-322-2990; www.arb.ca.gov/homepage.htm		
CARB SCM for Architectural Coatings- 2007	California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings	8.4.2.2.2

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Foreword

This addendum modifies the language of Section 8.3.4 on Soil Gas Entry Control to reduce the possibility of confusion regarding where such controls are required. Please note that the content in sections 8.3.4.1 and 8.3.4.2 and their respective subsections are not open for comment at this time.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 d to 189.1-2017

Modify Section 8.3.4 as follows:

8.3.4 Soil Gas Control. Building projects shall be designed to control soil ~~Soil-gas entry into enclosed spaces that are immediately above crawl spaces, slabs on grade and basement slabs shall be controlled~~ in accordance with 8.3.4.1 or 8.3.4.2.

8.3.4.1 Soil-Gas Control Systems

8.3.4.1.1 Soil-Gas Barriers. Soil-gas retarder systems shall be provided and shall comply with all of the following:

a. Earthen floors in basements and enclosed crawl spaces shall be covered with a soil-gas retarder membrane. Such membrane shall be sealed to the foundation at the edges. Soilgas retarder membranes or systems shall be placed between slab floors and the base course gas-permeable layer required by Section 8.3.4.1.2. Soil-gas retarder materials shall meet or exceed the durability requirements of ASTM E1745, and the installation shall comply with ASTM E1643. Damp-proofing or waterproofing materials shall be installed on the exterior surface of foundation *walls* and shall extend from the top of the footing to above grade.

b. Joints in concrete around the perimeter of each poured slab section shall be permanently sealed with closed-cell gasket materials or equivalent methods that retain closure after the slab has cured.

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c. Openings in slab floors; below-grade masonry *walls*; and membranes, such as those for plumbing, ground water control systems, soil vent pipes, electrical, mechanical piping, and structural supports, shall be sealed at the penetration with caulk that complies with ASTM C920 class 25 or higher equivalent closed-cell gasket materials or other equivalent method.

d. Sumps shall be covered with a rigid lid that is mechanically fastened and sealed with a gasket or caulk that will allow removal of the lid for maintenance.

e. Hollow masonry unit walls shall be designed and constructed as follows:

1. The first course of masonry units bearing on a footing shall be laid with a full mortar bedding and shall be solid units or fully grouted masonry units.

2. Where portions of masonry units are below grade and in contact with earth, the course of masonry units that is at or partially below grade shall be made of solid masonry units or fully grouted masonry units. Such course of masonry units need not change elevation to compensate for lower-grade elevations along the building perimeter. Openings in *walls* that are below such course of solid or fully grouted masonry units, such as window and door openings, shall be surrounded by solid or fully grouted masonry units.

8.3.4.1.2 Gas-Permeable Layer and Soil-Gas Conveyance. There shall be a continuous gas-permeable layer under each slab-on-grade and basement slab for the entire area of the slab and under each membrane installed over earth for the entire area of the membrane. Perforated pipe, geotextile matting, or soil-gas collection pits shall be installed below the slab or membrane and shall be connected to exhaust vent pipe as specified in Section 8.3.4.1.3. The gas-permeable layer and soil-gas conveyance pipe shall comply with Table 8.3.4.1.2 and (a), (b), or (c) as applicable.

a. Stone Aggregate Layer. The gas-permeable layer shall be a uniform layer not less than 4 in. (0.1 m) in depth and shall consist of gravel or crushed stone that meets ASTM C33 requirements for size numbers 5, 56, 57, or 6. Vent pipe openings to unobstructed interstices between stones within the gas-permeable layer shall not be less than the equivalent values indicated in Table 8.3.4.1.2.

b. Small Stone, Sand, and Soil. The gas-permeable layer shall be a uniform layer not less than 4 in. (0.10 m) in depth that consists of any of the following:

1. Small stone aggregates classified in ASTM C33 as size numbers 46, 67, 7, or 8.

2. Sand classified in ASTM C33 as size number 9.

3. Soil that contains less than 35% sand, rock fragment fines, clay, and silt. Such clay and silt shall consist of not more than 10% high-plasticity clay or silt. Perforated pipe or geotextile drainage matting shall be placed at distances not farther than 20 ft

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(6 m) apart and not farther than 10 ft (3 m) away from foundation walls or other surfaces that surround the gas-permeable layer. Perforated pipe shall be surrounded by not less than 4 in. (0.10 m) of gas-permeable aggregates that meet ASTM C33 requirements for size numbers 5, 56, 57, or 6. The minimum length and soil-gas inlet openings in the perforated pipe and geotextile matting shall not be less than equivalent values indicated in Table 8.3.4.1.2.

c. Crawl space Membranes. Perforated pipe or equivalent material not less than 10 ft (3 m) in length and 3 in. (0.08 m) in nominal diameter shall be provided under the membrane. The configuration shall allow air movement under the entire area of the membrane.

8.3.4.1.2.1 Soil-Gas Conveyance Clearance and Dimension. Geotextile mats and perforated pipe shall not be less than 12 in. (0.3 m) and not farther than 10 ft (3 m) from foundation *walls* or other surfaces that surround the gas-permeable layer. Soil-gas inlet openings into the geotextile mats and perforated pipe shall have an area of not less than 1.0 in.²/ft (21 cm²/m) of length. The airway path within geotextile mats and perforated pipe shall not be less than the nominal equivalent area of 3 in. (0.08 cm) pipe inner diameter. Pipe materials below slabs and membranes shall be configured to drain collected water within piping.

8.3.4.1.2.2 Connections to Exhaust Vent Pipes. Exhaust vent piping, as specified in Section 8.3.4.1.3, shall connect to soil-gas inlet configurations within the gas-permeable layer and extend not less than 2 ft (0.6 m) above the top of the slab or membrane. Such pipes shall be temporarily capped or otherwise closed during construction to prevent debris from entering the pipes. The pipe that extends above the slab or membrane shall be labeled with the words “radon vent” or “soil-gas vent” in the prevailing language at the location.

8.3.4.1.3 Soil-Gas Exhaust Vent Pipe. Soil-gas exhaust vent piping shall be provided as follows:

a. Pipe Placement. Nonperforated Schedule 40 pipe, as defined by ASTM D1785, shall extend from within the gas-permeable layers to the point of exhaust above the roof. The vent pipe size shall not be reduced at any point between its connection to the gas permeable layers and the exhaust terminal above the *roof*. Such piping shall be labeled on each floor level of the building with the words “radon vent” or “soil-gas vent” in the prevailing language at the location.

b. Multiple Vented Areas. Where interior footings divide a gas-permeable layer into two or more unconnected areas, such areas shall be interconnected by piping below the slab or membrane or above the slab or membrane. Such piping shall be nonperforated and of a size indicated in Table 8.3.4.1.3.

c. Provision for Fan. Soil-gas venting systems shall include a fan or a dedicated *space* for the future installation of a fan. The fan and soil-gas vent piping on the discharge side of the fan shall not be installed within or under occupied spaces. A dedicated space having a

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vertical height of not less than 48 in. (1.2 m) and a diameter of not less than 21 in. (0.53 m) shall be provided in the *attic* or other interior area to accommodate the installation of a fan. The fan inlet and outlet vent pipes shall be centered in such dedicated space. An electrical supply for the fan shall be provided within 6 ft (1.8 m) of the fan location.

d. Vented Area. The maximum foundation area served by a soil-gas exhaust vent pipe shall be determined in accordance with Table 8.3.4.1.3.

Exception to 8.3.4.1.3.(d): Where inspections verify compliance with Sections 8.3.4.1.1 through 8.3.4.1.3, the maximum vented area per vent pipe indicated in Table 8.3.4.1 shall be increased by 40%. Where the soil-gas barrier consists of a spray-applied vapor barrier or a geomembrane that provides a homogeneous closure, the maximum vented area per vent pipe shall be increased by an additional 20%.

8.3.4.2 Alternative Methods of Soil-Gas Control.

A soil-gas control system shall be provided, and such system shall be clearly identified or otherwise noted on *construction documents* and shall be approved by a qualified soilgas professional and the *building project FPT provider*.



**BSR/ASHRAE/IES Addendum ab
to ANSI/ASHRAE/IES Standard 90.1-2016**

Public Review Draft

Proposed Addendum ab to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This addendum is intended to clarify the definitions and classifications of the 90.1 standard regarding doors and fenestration. The addendum clarifies when doors are classified as fenestration and when doors are classified as opaque doors. Definitions unchanged by the addendum are included to help toward evaluating the proposed revisions. This addendum does not affect the energy use of the standard and has no economic impact.

[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 ab to 90.1-2016

Modify the standard as follows (IP and SI Units)

Revise Section 3.2 Definitions as follows:

access hatch: see door.

building entrance: any doorway, set of doors, revolving door, vestibule, or other form of portal that is ordinarily used to gain access to the building or to exit from the building by its users and occupants. This does not include doors solely used to directly enter mechanical, electrical, and other building utility service equipment rooms.

...

door ~~(access hatch):~~ all an operable opening areas (that are not fenestration) in the building envelope that is not fenestration, including swinging and roll-up doors, fire doors, and access hatches. A Doors-door that are where more than one-half of the door area is glass-glazed is are considered fenestration, (see fenestration) and a door where one-half or less of the door area is glazed is considered an opaque door. An access hatch is considered a door. For the purposes of determining building envelope requirements, the classifications are defined as follows:

metal coiling door: an upward-acting, nonswinging door assembly consisting of interlocking horizontal slats or sheets that, upon opening the door, roll up around a horizontal barrel above the door opening.

nonswinging door: roll-up, metal coiling, sliding, and ~~all any other doors that are~~ is not a swinging doors.

sectional garage door: an upward-acting, nonswinging door assembly made of two or more horizontal panels hinged together vertically. [note: text moved with no changes]

swinging door: ~~all a door having an~~ operable opaque panels with hinges or pivots on one side and opaque revolving doors.

...

entrance door: see vertical fenestration.

...

fenestration: ~~all areas an assembly (including the frame,s) in the building envelope that let in allows light to pass.~~
~~Fenestration assemblies includeing, but are not limited to, windows, plastic panels, clerestories, roof monitors,~~
~~skylights, glass block, and doors that are where more than one-half of the door area is glazed glass, and glass block~~
~~walls. For the purposes of determining building envelope requirements, the classifications are defined as follows: (See~~
~~building envelope and door.)~~

field-fabricated fenestration: fenestration whose frame is made at the construction site of materials that were not previously cut, or otherwise formed with the specific intention of being used to fabricate a fenestration product or exterior glazed door. Field-fabricated fenestration does not include site-built fenestration designed to be glazed or assembled in the field using specific factory-cut or otherwise factory-formed framing and glazing units, such as storefront systems, curtain walls, and atrium roof systems.

skylight: a fenestration surface having a slope of less than 60 degrees from the horizontal plane. Other fenestration, even if mounted on the roof of a building, is considered vertical fenestration.

vertical fenestration: all fenestration other than skylights. Trombe wall assemblies, where glazing is installed within 12 in. (300mm) of a mass wall, are considered walls, not fenestration.

...

opaque: all areas in the building envelope, except fenestration and building service openings such as vents and grilles. (See building envelope and fenestration.)

...

sectional garage door: see door. ~~an upward-acting, nonswinging door assembly made of two or more horizontal panels hinged together vertically.~~



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FOREWORD

This addendum makes three changes to Appendix G. First it ensures that lighting power is determined using the same approach (Building Area Method versus Space-by-Space Method) for situations where a lighting systems neither exists nor has been designed. It requires that both proposed and baseline lighting power is determined according to the Space-by-Space method if space types are known and according to the Building Area Method if they are not. The second change ensures that the impact of exceeding the power limits for exterior lighting of Nontradable surfaces is captured by requiring that the baseline building lighting power is the same as the proposed or equal to the baseline defaults, whichever is less. The third change is that it adds a baseline allowance for retail display lighting that is equal to the proposed design.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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Addendum af to 90.1-2016

Revise the Standard as follows (IP Units)

TABLE G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

No. Performance	Proposed Building	Baseline Building Performance
6. Lighting	<p>Lighting power in the <i>proposed design</i> shall be determined as follows:</p> <ol style="list-style-type: none"> Where a complete <i>lighting system</i> exists, the actual lighting power for each <i>thermal block</i> shall be used in the model. Where a <i>lighting system</i> has been designed and submitted with design documents, lighting power shall be determined in accordance with Sections 9.1.3 and 9.1.4. Where lighting neither exists nor is submitted with design documents, lighting shall comply with but not exceed the requirements of Section 9. <u>Where space types are known, lighting power shall be determined in accordance with the Space-by-Space Method. Where space types are not known, lighting power shall be</u> 	<p>Interior lighting power in the <i>baseline building design</i> shall be determined using the values in Table G3.7. <u>However, where lighting neither exists nor is submitted with design documents, and the proposed design lighting power is determined in accordance with the Building Area Method, the baseline building design lighting power shall be determined in accordance with Table G3.8. Where retail display lighting is included in the proposed building design in accordance with Section 9.6.2b, the baseline building design retail display lighting additional power shall be equal to the limits established by Section 9.6.2b or same as proposed which ever less.</u></p>

determined in accordance with the *Building Area Method*.

d. *Lighting system* power shall include all *lighting system* components shown or provided for on the plans (including *lamps* and *ballasts* and task and furniture-mounted *fixtures*).

Exceptions: For multifamily *dwelling units*, hotel/motel guest rooms, and other *spaces* in which *lighting systems* are connected via receptacles and are not shown or provided for on *building plans*, assume identical lighting power for the *proposed design* and *baseline building design* in the simulations.

e. Exterior lighting power and Lighting power for parking garages and ~~building facades~~ shall be modeled.

Lighting shall be modeled having the *automatic shutoff controls* in *buildings* >5000 ft² (500 m²) and occupancy sensors in employee lunch and break rooms, conference/meeting rooms, and classrooms (not including shop classrooms, laboratory classrooms, and preschool through 12th-grade classrooms). These *controls* shall be reflected in the *baseline building design* lighting schedules. No additional *automatic lighting controls*, e.g., *automatic controls* for daylight utilization and occupancy sensors in *space* types not listed above, shall be modeled in the *baseline building design*.

Exterior lighting in areas that are designed to be illuminated and identified as "Tradable Surfaces" in Table G3.6 shall be modeled with the baseline lighting power shown in Table G3.6. Other exterior lighting shall be modeled the same in the *baseline building design* as in the *proposed design*.

Table G3.6 Lighting Power Densities for Building Exteriors

Tradable Surfaces (Lighting power densities for uncovered parking areas, building grounds, building entrances and exits, canopies and overhangs and outdoor sales areas may be traded.)	Uncovered Parking Areas	
	Parking lots and drives	0.15 W/ft ² (1.6 W/m ²)
	Building Grounds	
	Walkways less than 10 ft (3 meters) wide	1.0 W/linear foot (3.3 W/linear meter)
	Walkways 10 ft (3 meters) wide or greater	0.2 W/ft ² (2.3 W/m ²)
	Plaza areas	
	Special feature areas	
	Stairways	1.0 W/ft ² (10.8 W/m ²)
	Building Entrances and Exits	
	Main entries	30 W/linear foot (98 W/linear meter) of door width
	Other doors	20 W/linear foot (66 W/linear meter) of door width
	Canopies and Overhangs	
	Canopies (free standing and attached and overhangs)	1.25 W/ft ² (13.5 W/m ²)
	Outdoor Sales	
	Open areas (including vehicle sales lots)	0.5 W/ft ² (5.4 W/m ²)
Nontradable Surfaces (Lighting power density calculations for the following applications can be used only for the	Building Facades	
	0.2 W/ft ² (2.2 W/m ²) for each illuminated wall or surface or 5.0 W/linear foot (16.4 W/linear meter) for each illuminated wall or surface length	
	Automated teller machines (ATMs) and night depositories	270 W per location plus 90 W per additional ATM per location

<p>specific application and cannot be traded between surfaces or with other exterior lighting. The following allowances are in addition to any allowance otherwise permitted in the "Tradable Surfaces" section of this table.)</p>	<p>Entrances and gatehouse inspection stations at guarded facilities</p> <p>Loading areas for law enforcement, fire, ambulance and other emergency service vehicles</p> <p>Drive-up windows at fast food restaurants</p> <p>Parking near 24-hour retail entrances</p>	<p>1.25 W/ft² (13.5 W/m²) of uncovered area (covered areas are included in the "Canopies and Overhangs" section of "Tradable Surfaces")</p> <p>0.5 W/ft² (5.4 W/m²) of uncovered area (covered areas are included in the "Canopies and Overhangs" section of "Tradable Surfaces")</p> <p>400 W per drive-through</p> <p>800 W per main entry</p>
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**BSR/ASHRAE/IES Addendum ag
to ANSI/ASHRAE/IES Standard 90.1-2016**

Public Review Draft

Proposed Addendum ag to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This addendum accounts for the inclusion of automatic receptacle controls in a proposed building design for spaces that are not required to have them by increasing the receptacle schedule in the baseline building. The schedule increase assumes that each control controlled receptacle will result in a decrease of 10% of energy use.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 ag to 90.1-2016

Revise the Standard as follows (IP Units)

TABLE G3.1 Modeling Requirements for Calculating Proposed and Baseline Building Performance

No.	Proposed Building Performance	Baseline Building Performance
12. Receptacle and Other Loads	<p>Receptacle and <i>process loads</i>, such as those for office and other <i>equipment</i>, shall be estimated based on the <i>building area type</i> or <i>space type</i> category and shall be assumed to be identical in the <i>proposed design</i> and <i>baseline building design</i>, except as specifically approved by the <i>rating authority</i> only when quantifying performance that exceeds the requirements of Standard 90.1 but not when the <i>Performance Rating Method</i> is used as an alternative path for minimum standard compliance in accordance with Section 4.2.1.1. These loads shall always be included in simulations of the <i>building</i>. These loads shall be included when calculating the <i>proposed building performance</i> and the <i>baseline building performance</i> as required by Section G1.2.1.</p> <p><u>Exception:</u> <u>When receptacle controls installed in spaces where not required by Section 8.4.2 are included in the proposed building design the hourly receptacle schedule shall be reduced as follows:</u></p>	<p>Motors shall have the <i>efficiency ratings</i> found in Table G3.9.1. Other <i>systems</i> covered by Section 10 and miscellaneous loads shall be modeled as identical to those in the proposed design, including schedules of operation and <i>control</i> of the <i>equipment</i>. <i>Energy</i> used for cooking <i>equipment</i>, receptacle loads, computers, medical or laboratory <i>equipment</i>, and manufacturing and industrial process <i>equipment</i> not specifically identified in the standard power and <i>energy</i> rating or capacity of the <i>equipment</i> shall be identical between the <i>proposed building performance</i> and the <i>baseline building performance</i>. <u>Receptacle schedules shall be the same as the <i>prc</i> design before the receptacle power credit is applied.</u></p> <p>Exceptions: When quantifying performance that exceeds the requirements of Standard 90.1 (but not when using the Performance Rating Method as an alternative path for minimum standard compliance per Section 4.2.1.1) other variations of the power requirements, schedules, or <i>control</i> sequences of the <i>equipment</i> modeled in the <i>baseline building design</i> from those in the <i>proposed design</i> shall be approved by the <i>rating authority</i> based on documentation that the <i>equipment</i> installed in the <i>proposed design</i> represents a significant verifiable departure from documented current conventional practice. The burden of this documentation is to demonstrate that accepted conventional</p>

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$$\underline{RPC = RC \times 10\%}$$

Where:

RPC = Receptacle power credit

$$\underline{EPS_{pro} = EPS_{bas} \times (1 - RPC)}$$

RC = Percentage of all controlled receptacles

EPS_{bas} = Baseline *equipment* power hourly schedule (fraction)

EPS_{pro} = Proposed *equipment* power hourly schedule (fraction)

practice would result in baseline *building equipment* different from that installed in the *proposed design*. Occupancy and occupancy schedules shall not be changed.

- a. Where power and other *systems* covered by Sections 8 and 10 have been designed and submitted with design documents, those *systems* shall be determined in accordance with Sections 8 and 10.
- b. Where power and other *systems* covered by Sections 8 and 10 have not been submitted with design documents, those *systems* shall comply with but not exceed the requirements of those sections.



**BSR/ASHRAE/IES Addendum ah
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Public Review Draft

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FOREWORD

The language in section 9.1.4 is currently dated and does not relate well to modern lighting equipment and installation methodology. This proposal updates the language and terminology. Additionally, a section has been added to specifically address a new technology trend using DC power over Cat6 structured cable for connection of LED lighting to a remote power supply.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striking through~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum ah to 90.1-2016

Modify the standard as follows (IP and SI Units)

9.1.4 Interior and Exterior ~~Luminaire~~ Lighting Wattage

~~Luminaire~~ The wattage of lighting equipment, when used to calculate either *installed interior lighting power* or *installed exterior lighting power*, shall be determined in accordance with the following criteria:

- a. The wattage of ~~line voltage luminaires~~ lighting equipment connected to line voltage ~~not containing permanently installed ballasts, transformers, or similar devices~~ shall be the manufacturers' labeled maximum wattage ~~of the luminaire~~.
- b. The wattage of ~~line voltage luminaires~~ lighting equipment with ~~permanently installed or remote ballasts/drivers, transformers, or similar devices~~, shall be the total operating input wattage of ~~the maximum lamp/auxiliary combination based on values from the auxiliary manufacturers' literature or recognized testing laboratories or shall be the maximum labeled wattage of the luminaire~~ all line voltage components in the system.

Exception to 9.1.4(b)

Lighting power calculations for *ballasts* with adjustable ballast factors shall be based on the ballast factor that will be used in the *space*, provided that the ballast factor is not user changeable.

-
- c. For line-voltage lighting track and plug-in busway designed to allow the addition and/or relocation of ~~luminaires~~ lighting equipment without altering the wiring of the *system*, the wattage shall be
 1. the specified wattage of the ~~luminaires~~ lighting equipment included in the *system* with a minimum of 30 W/lin ft, or
 2. the wattage limit of the *system's circuit breaker*, or

3. the wattage limit of other permanent current-limiting devices on the *system*.
- d. The wattage of low-voltage lighting track, cable conductor, rail conductor, and other flexible *lighting systems* that allow the addition and/or relocation of ~~*luminaires*~~ *lighting equipment* without altering the wiring of the *system* shall be the specified wattage of the *ballast/driver* or transformer supplying the *system*.
- e. The wattage of a DC low voltage *lighting system* that employs flexible cabling for plug-in connection of the *lighting equipment* and a remote power supply, shall be the labeled maximum wattage of the *system* power supply. For *systems* that also provide power to *equipment* other than lighting, the wattage shall be the labeled maximum wattage of the *system* power supply reduced by the wattage of the non-lighting *equipment* connected to the *system*.
- ef. The wattage of all other miscellaneous *lighting equipment* shall be the specified wattage of the *lighting equipment*.



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Public Review Draft

Proposed Addendum o to Standard 90.1-2016, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This 2nd PRD ISC to addendum o clarifies the labeling requirements for various types of building insulation. This addendum does not affect the energy use of the standard and has no economic impact.

[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 o to 90.1-2016

Modify the standard as follows (IP and SI Units)

5.8.1.1 Labeling of building envelope insulation. The *rated R-value of insulation* shall be clearly identified by an identification mark applied by the *manufacturer* to each piece of *building envelope* insulation.

Exception: When insulation does not have such an identification mark, the *rated R-value of insulation* and the additional information specified below shall be identified by the *manufacturer* on each package, shipping container, or bundle of insulation. Insulation documentation shall be provided in accordance with Section 5.8.1.1 and the following:

1. For batts and blankets of any type: the *rated R-value of insulation*, length, width, thickness.
2. For boardstock: the *rated R-value of insulation*, length, width, and thickness of the boards in the package.
3. For all loose-fill insulation: the minimum settled thickness, initial installed thickness, maximum net coverage area, number of bags per 1000 ft² (100 m²), and minimum weight per ft² (m²) at *R-values* of 13, 19, 30, 38, and 49 (per m² at *R-values* of 2.3, 3.4, 5.3, 6.7, and 8.6). The package shall also state the minimum net weight of the insulation in the package.
4. For spray-applied polyurethane foam: the *R-value* for the insulation: at a 1 in. (25 mm) thickness and additional inch (mm) increments up to the maximum thickness allowed.



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FOREWORD

In response to comments from the first public review, we added language for an additional option for both Section 11 and Appendix G which renewable systems are eligible.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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Addendum s to 90.1-2016

Revise the Standard as follows (IP and SI Units)

11.4.3 Renewable, Recovered, and Purchased Energy

11.4.3.1 On-Site Renewable Energy and Site-Recovered Energy

Site-recovered energy shall not be considered purchased energy and shall be subtracted from the proposed design energy consumption prior to calculating the design energy cost. On-site renewable energy; shall be subtracted from the proposed design energy consumption prior to calculating the design energy cost; provided that the building owner either:

- 1. owns the on-site renewable energy system or*
- 2. has signed a lease agreement for the on-site renewable energy system for at least 15 years; or*
- 3. has signed a contractual agreement to purchase energy generated by the on-site renewable energy system for at least 15 years.*

The reduction in design energy cost associated with on-site renewable energy shall be no more than 5% of the calculated energy cost budget.

...

G2.4 Renewable, Recovered, and Purchased Energy

G2.4.1 On-Site Renewable Energy and Site-Recovered Energy

Site-recovered energy shall not be considered purchased energy and shall be subtracted from the proposed design energy consumption prior to calculating the proposed building performance. On-site renewable energy shall be subtracted from the proposed design energy consumption prior to calculating the proposed building performance provided that the building owner either:

- 1. owns the on-site renewable energy system or*
- 2. has signed a lease agreement for the on-site renewable energy system for at least 15 years; or*

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3. has signed a contractual agreement to purchase *energy* generated by the *on-site renewable energy system* for at least 15 years.



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FOREWORD

This addendum provides revisions to the description of the compliance path to clarify how the standard is intended to be used. These changes do not revise the previously intended path to compliance.

Section 4 is modified to clarify that there are three compliance options in the standard: Sections 5 through 10, Section 11, or Appendix G but regardless of which option is chosen all projects must comply with Section s 4.2.3 through 4.2.5.

Section 4.1.1 is clarified without changing the requirements and streamlined by deleting redundant text containing an explanation of what an addition is, because the term “addition” is already defined in Section 3.2.

This addendum does not affect the energy use of the standard and has no economic impact.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 x to 90.1-2016

Revise Section 4 of the Standard as follows (IP and SI Units)

4.1 General

4.1.1 Scope

4.1.1.1 New Buildings

New buildings shall comply with the standard as described in Section 4.2.

4.1.1.2 Additions to Existing Buildings

An extension or increase in the floor area or height of a building ~~outside of the existing building envelope~~ shall be considered additions to ~~existing buildings~~ and shall comply with the standard as described in Section 4.2.

Additions to existing buildings shall comply with the standard as described in Section 4.2.

4.1.1.3 Alterations of Existing Buildings

Alterations of existing buildings shall comply with the standard as described in Section 4.2.

4.1.1.4 Replacement of Portions of Existing Buildings

Portions of a *building envelope*, heating, ventilating, air-conditioning, *service water heating*, power, lighting, and other *systems* and *equipment* that are being replaced shall be considered as *alterations of existing buildings* and shall comply with the standard as described in Section 4.2.

4.1.1.5 Changes in Space Conditioning

Whenever *unconditioned spaces* or *semiheated spaces* in a *building* are converted to *conditioned spaces*, such *conditioned spaces* shall be brought into compliance with all the applicable requirements of this standard that would apply to the *building envelope*, heating, ventilating, air-conditioning, *service water heating*, power, lighting, and other *systems* and *equipment* of the *space* as if the *building* were new.

4.1.2 Administrative Requirements

Administrative requirements relating to permit requirements, enforcement by the *authority having jurisdiction*, locally adopted energy standards, interpretations, claims of exemption, and rights of appeal are specified by the *authority having jurisdiction*.

4.1.3 Alternative Materials, Methods of Construction, or Design

The provisions of this standard are not intended to prevent the use of any material, method of *construction*, design, *equipment*, or *building system* not specifically pre-scribed herein.

4.1.4 Validity

If any term, part, provision, section, paragraph, subdivision, table, chart, or referenced standard of this standard shall be held unconstitutional, invalid, or ineffective, in whole or in part, such determination shall not be deemed to invalidate any remaining term, part, provision, section, paragraph, subdivision, table, chart, or referenced standard of this standard.

4.1.5 Other Laws

The provisions of this standard shall not be deemed to nullify any provisions of local, state, or federal law. Where there is a conflict between a requirement of this standard and such other law affecting construction of the building, precedence shall be determined by the *authority having jurisdiction*.

4.1.6 Referenced Standards

The standards referenced in this standard and listed in Section 12 shall be considered part of the requirements of this standard to the prescribed extent of such reference. Where differences occur between the provision of this standard and referenced standards, the provisions of this standard shall apply. Informative references are cited to acknowledge sources and are not part of this standard. They are identified in Informative Appendix E.

4.1.7 Normative Appendices

The normative appendices to this standard are considered to be integral parts of the mandatory requirements of this standard, which, for reasons of convenience, are placed apart from all other normative elements.

4.1.8 Informative Appendices

The informative appendices to this standard and informative notes located within this standard contain additional information and are not mandatory or part of this standard.

4.1.9 Reference Standard Reproduction Annexes

The reference standard reproduction annexes contain material that is cited in this standard but contained in another standard. The reference standard reproduction annexes are not part of this standard but are included in the publication of this standard to facilitate use of this standard.

4.2 Compliance

4.2.1 Compliance Paths

4.2.1.1 New Buildings

New *buildings* shall comply with Sections 4.2.2 through 4.2.5 and either the provisions of

- a. Section 5, “Building Envelope”; Section 6, “Heating, Ventilating, and Air”; Section 7, “Service Water Heating”; Section 8, “Power”; 9, “Lighting”; and Section 10, “Other Equipment,” or
- b. Section 11, “Energy Cost Budget Method,” or
- c. Normative Appendix G, “Performance Rating Method.”

When using Appendix G, the Performance Cost Index (PCI) of new buildings, additions to existing buildings and/or alterations to existing buildings shall be less than or equal to the Performance Cost Index Target (PCI_T) when calculated in accordance with the following:

$$PCI_T = (BBUEC + (BPF \times BBREC)) / BBP$$

where:

PCI = Performance Cost Index calculated in accordance with Section G1.2.

BBUEC = Baseline Building Unregulated Energy Cost. The portion of the annual energy cost of a *baseline building design* that is due to *unregulated energy use*.

BBREC = Baseline Building Regulated Energy Cost. The portion of the annual energy cost of a *baseline building design* that is due to *regulated energy use*.

- BPF = Building Performance Factor from Table 4.2.3. For *building* area types not listed in Table 4.2.3, use “All others.” Where a *building* has multiple *building* area types, the required BPF shall be equal to the area-weighted average of the *building* area types.
- BBP = *Baseline Building Performance*.

4.2.1.2 Additions to Existing Buildings

Additions to existing buildings shall comply with ~~either~~ the provisions of Sections 4.2.2 through 4.2.5 and one of the following:

- a. Sections 5, “Building Envelope”; Section 6, “Heating, Ventilating, and Air ”; Section 7, “Service Water Heating”; Section 8, “Power”; Section 9, “Lighting”; and Section 10, “Other Equipment,” or
- b. Section 11, “Energy Cost Budget Method,” or
- c. Normative Appendix G, “Performance Rating Method” in accordance with Section 4.2.1.1.

4.2.1.2.1

When an *addition* to an *existing building* cannot comply by itself, trade-offs will be allowed by modification to one or more of the existing components of the *existing building*. Modeling of the modified components of the *existing building* and *addition* shall employ the procedures of Section 11 or Normative Appendix G. ; The *addition* shall not increase the *energy* consumption of the *existing building* plus the addition beyond the *energy* that would be consumed by the *existing building* plus the addition if the addition alone did comply.

4.2.1.3 Alterations of Existing Buildings

Alterations of existing buildings shall comply with the provisions of Sections 4.2.2 through 4.2.5 and one of the following:

- a. Sections 5, “Building Envelope”; Section 6, “Heating, Ventilating, and Air ”; Section 7, “Service Water Heating”; Section 8, “Power”; Section 9, “Lighting”; and Section 10, “Other Equipment,” or
- b. Section 11, “Energy Cost Budget Method,” or
- c. Normative Appendix G, “Performance Rating Method” in accordance with Section 4.2.1.1.

Exception to Section 4.2.1.3

A *building* that has been specifically designated as historically significant by the adopting authority or is listed in The National Register of Historic Places or has been determined to be eligible for listing by the U.S. Secretary of the Interior need not comply with these requirements.

Note: The remainder of Section 4 is not changing



**BSR/ASHRAE/IES Addendum y
to ANSI/ASHRAE/IES Standard 90.1-2016**

Public Review Draft

**Proposed Addendum y to
Standard 90.1-2016, Energy
Standard for Buildings Except
Low-Rise Residential Buildings**

**Second Public Review (February 2018)
(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 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 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.

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

BSR/ASHRAE/IES Addendum y to ANSI/ASHRAE/IES Standard 90.1-2016, *Energy Standard for Buildings Except Low-Rise Residential Buildings*
 Second Public Review Draft – Independent Substantive Changes

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FOREWORD

In response to comments from the first public review, we clarified how hourly values would be applied when sizing and added an exception for how equipment for residences are sized.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

[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 ~~striking through~~ (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 y to 90.1-2016

Revise the Standard as follows (IP and SI Units)

G3.1.2.2.1 Sizing Runs

Weather conditions used in sizing runs to determine baseline *equipment* capacities shall be based on design days developed using heating design temperatures, and cooling design temperatures, and cooling design wet-bulb temperature. For cooling sizing runs, schedules for internal loads including those used for infiltration, occupants, lighting, gas and electricity using *equipment* shall be equal to the highest hourly value used in the annual simulation runs and applied to the entire design day. For heating sizing runs, schedules for internal loads including those used for ~~infiltration~~, occupants, lighting, gas and electricity using *equipment* shall be equal to the lowest hourly value used in the annual simulation runs; and schedules for infiltration shall be equal to the highest hourly value used in the annual simulation runs and applied to the entire design day.

Exception: For cooling sizing runs in *residential dwelling units*, the infiltration, occupants, lighting, gas and electricity using equipment hourly schedule shall be the same as the most commonly used hourly weekday schedule from the annual simulation.

Public Review Draft

Proposed Addendum e to Standard 189.1-2017

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

First Public Review (February 2018)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts 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 or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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FOREWORD

This addendum corrects an error in Section 7.5 Performance Option relating to the target for CO₂e emissions by replacing the current wording in the standard with that intended by the project committee.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 e to Standard 189.1-2017

Modify Section 3 as follows:

7.5 Performance Option

7.5.1 Annual Energy Cost. The *proposed building performance* cost index (PCI) with consideration of renewables shall be calculated in accordance with ANSI/ASHRAE/IES Standard 90.1, Normative Appendix G, and be equal to or less than the Performance Cost Index Target, as determined from the following equation:

$$PCI_{target} = \frac{BBUEC + (BBREC \times BPF) - REC}{BBUEC + BBREC}$$

where

PCI_{target} = target PCI required for achieving compliance with the standard, unitless

BBUEC = the component of *baseline building performance* that is due to *unregulated energy use*, \$

BBREC = the component of *baseline building performance* that is due to *regulated energy use*, or *baseline building performance* minus BBUEC, \$

BPF = building performance factor taken from Table 7.5.2A, unitless

REC = renewable energy production determined from Section 7.4.1.1.1 and converted to cost, \$

The proposed building PCI, without consideration of renewables, shall comply with the requirements of ANSI/SHRAE/IES Standard 90.1, Section 4.2.1.1.

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Table 7.5.2A Energy Cost and CO₂e Building Performance Factors (BPF)

Building Type	Building Performance Factor (BPF)
Multifamily	0.71
Healthcare/hospital	0.56
Hotel/motel	0.58
Office	0.54
Restaurant	0.59
Retail	0.50
School	0.37
Semiheated warehouse	0.44
All others	0.54

a. Conditioned warehouses shall use the “All others” category.

Table 7.5.2B CO₂e Emission Factors

<i>Building Project Energy Source</i>	<i>CO₂e, lb/MWh</i>	<i>CO₂e, kg/MWh</i>
Grid-delivered electricity and other fuels not specified in this table	1,348	612
LPG or propane	601	273
Fuel oil (residual)	685	311
Fuel oil (distillate)	663	301
Coal	820	372
Gasoline	681	309
Natural gas	509	231
District chilled water	323	146
District steam	855	388
District hot water	807	366

The values in this table represent national averages for the United States and include both direct and indirect emissions.

On-site renewable energy systems in the *proposed design* shall be calculated using the procedures in Normative Appendix C. For mixed-use buildings, the building performance factor shall be determined by weighting each building type by floor area.

7.5.2 Annual Carbon Dioxide Equivalent (CO₂e). The *proposed design* shall have an annual CO₂e equal to or less than the annual CO₂e of the *baseline building design* multiplied by the ~~building~~

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~~performance factor (BPF) target determined from Table 7.5.2A using the Performance Rating Method in ANSI/ASHRAE/IES Standard 90.1, Normative Appendix G~~ performance cost index target determined in accordance with 7.5.1. To determine the annual CO_{2e} for each energy source in the *baseline building design* and *proposed design*, the energy consumption shall be multiplied by the CO_{2e} emission factors from Table 7.5.2B.

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NSF/ANSI 14-2016b - Plastics piping system components and related materials

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9 Quality assurance

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9.9 Product-specific quality assurance requirements

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Table 9.XX – Cured-in-place pipe liners

Test	Frequency
gravity leakage test	quarterly
flexural strength	quarterly
flexural modulus	quarterly
product standard(s)	ASTM F1216

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[Note – the changes are illustrated below using ~~strikeout~~ for proposed removal of existing text and grey highlights to indicate the proposed new text. ONLY the highlighted text and ~~strikeout~~ text is within the scope of this ballot. Rationale Statements are in **RED** and only used to add clarity; these statements will NOT be in the finished publication]

NSF/ANSI - 49

Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

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Annex F (normative)

Field tests

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F.7.3.2.2 Exhaust alarm system – Type A1 or A2 canopy connection

F.7.3.2.2.1 Maintain inflow velocity using canopy connection on Type A1 or Type A2 cabinets:

a) Shall be tested at time of alarm verification for new or modified installations if using non-NSF listed canopy.

b) Turn facility exhaust system off. Measure inflow velocity of the cabinet. The facility exhaust alarm shall activate within 15 s of the facility exhaust being turned off. The measured velocity shall be no less than 8.0 ft/min (0.041 m/s) less than the lowest value for the NSF listed inflow velocity range.

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Language below has been voted in successfully in previous revision ballots, and is offered here for reference but is no longer up for vote

F.7.3.2.2.2 Containment loss of canopy connection on Type A1 or A2 cabinets:

- a) Shall be tested at time of alarm verification.
- b) Introduce a visible medium source into the canopy air intake(s) while slowly reducing the exhaust volume until there is a loss of capture of the visible medium into the canopy air intake(s). The audible and visual canopy alarms shall respond within 15 s, and the cabinet fan(s) will continue to operate.
- c) Direct connected Type A1 or A2 cabinets shall not be considered in compliance with the standard.

3 Definitions

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3.XX. Modified Canopy Installation: Installation of any canopy other than a designated acceptable option for a NSF Listed Biosafety Cabinet.

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NSF/ANSI Standard

Equipment for Swimming Pools, Spas, Hot Tubs and other Recreational Water Facilities

Evaluation criteria for materials, components, products, equipment and systems for use at recreational water facilities

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Annex G (normative)

Test methods for the evaluation of flow-through chemical feeding equipment

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G.1.4 Chemical resistance test method

NOTE — The method described here is primarily intended for the testing of basic erosion-type flow-through chemical feeders. Some modification may be required when evaluating differing types of flow-through chemical feeder designs. However, the intent of the method shall be maintained when these modifications are made.

- a) Install the flow-through chemical feeder in a flow loop, such that the discharge is into an open vented tank. The tank should be vented outside.
- b) Fill the flow-through chemical feeder to the maximum level with the applicable chemicals, or subject feeder parts to the specified chemicals by immersion. If the chemical is a dry type, fill the feeder to the manufacturer's maximum recommended chemical level and then fill it to the maximum water level.
- c) To ensure that the chemical solution is in contact with each surface that is to be exposed, the feeder should be installed below the water level in the tank.
- d) ~~Seal all inlet and outlet ports, with the exception of one port above the flood level to allow any generated gases to escape.~~
- e) Expose the normally wetted parts to the chemical(s) for 100 ± 6 h, by flowing water through the chemical feeder for 16 out of every 24 hours and allowing the water to remain stagnant for 8 out of every 24 hours.
- f) Examine the feeder weekly and check for any signs of leakage, damage, or any other noticeable changes. Once the test period has elapsed, drain and examine the feeder.

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BSR/UL 62841-3-13, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-13: Particular Requirements For Transportable Drills

21.18.2.1 This subclause is not applicable.

NOTE In Europe (EN 62841-3-13), this subclause of Part 1 is applicable and the following requirement applies:

The tool shall not restart after an interruption of the mains supply without releasing and re-actuating the **power switch**.

21.18.2.1DV D2 Modification: Replace Clause 21.18.2.1 with the following:

This subclause of the Part 1 is applicable, except as follows:

The tool shall not restart after an interruption of the mains supply without releasing and re-actuating the power switch unless the tool is equipped with a momentary power switch, which cannot be locked in the “on” position.

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BSR/UL 723, Standard For Safety For Test for Surface Burning Characteristics of Building Materials

1. Addition of Heptane Representative Curve

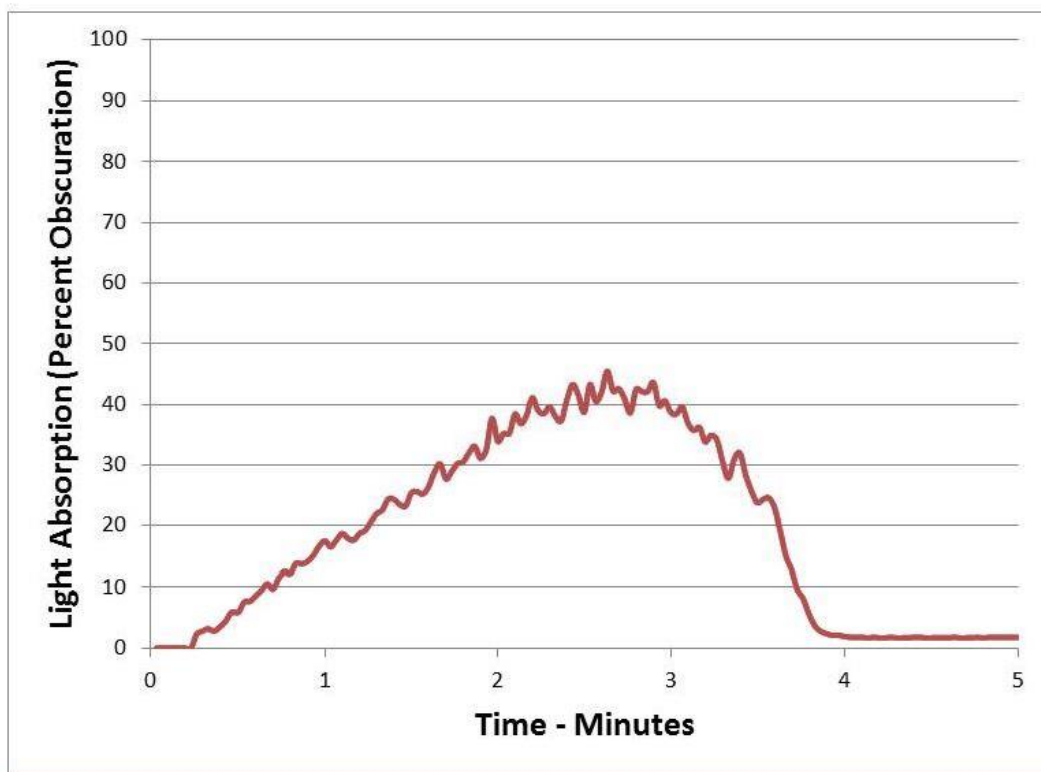
(NEW)

FIGURE 5.6 - Smoke Density - 295g Heptane

Please note that the proposed new figure can be viewed in CSDS by clicking on "Supporting Documentation" under the Quick View tab on the right-hand side of the work area. A pop-up window with the supporting documentation should appear. Select the magnifying glass icon to bring up the figure.

Figure 5.6

Smoke Density – 295 g Heptane



BSR/UL 1557, Standard for Safety for Electrically Isolated Semiconductor Devices**1. Adding dc Production Line Dielectric Testing****14 Dielectric Voltage-Withstand Test**

14.1 Each product shall withstand without electrical breakdown, as a routine production-line test, the application of a potential at a frequency within the range of 40 - 70 Hz between live parts and accessible dead metal parts.

Exception: A dc potential equal to 1.414 times the specified 40 - 70 Hz potential may be used.

14.2 The production-line test potential shall be the rated isolation rms voltage for 60 seconds or 120 percent of the rated isolation rms voltage for one second.

Exception: For a dc test potential:

a) 1.414 times the rated isolation rms voltage for one minute, or

b) 1.414(1.2) times the rated isolation rms voltage for one second.

14.4 For an ac test, the test equipment shall include a transformer having an essentially sinusoidal output, a means of indicating the test potential, an audible or visual indicator of electrical breakdown, and either a manually reset device to restore the equipment after electrical breakdown or an automatic feature that rejects any unacceptable unit.

BSR/UL 2523, Standard for Safety for Solid-Fuel Fired Hydronic Heating Appliances, Water Heaters and Boilers

Table 55.1

Maximum temperatures and maximum temperature rises

Device or Material		Column 4 Max Temperature Rise		Max Temp	
		°C	(°F)	°C	(°F)
B.	COMPONENTS				
	1. Field-wiring terminals ^c	50	(90)		
	2. Points on or within terminal box which may be in contact with field wiring ^c	35	(63)		
	3. Capacitors				
	Electrolytic type ^d	40	(72)		
	Other types ^e	65	(117)		
	4. Relay, solenoid, and other coils with: ^b				
	a. Class 105 insulated windings -				
	Thermocouple method	65	(117)		
	b. Class 130 insulated windings -				
	Thermocouple method	85	(153)		
	5. Sealing compounds	40°C (104°F) less than its melting point		40°C (72°F) less than its melting point	
	6. Transformer enclosures ^b -				
	a. Class 2 transformer	60	(108)		
	b. Power and ignition transformers	65	(117)		
D.	ELECTRICAL INSULATION - GENERAL ^g				
	1. Class C electrical insulation material	Not specified			
	2. Class H (180) electrical insulation material	As determined by test			
	3. Fiber used as electrical insulation or cord bushings	65	(117)		
	4. Phenolic composition used as electrical insulation or as parts of where deterioration will result in a risk of fire or electric shock	125	(225)		
	5. Thermoplastic material	25°C (77°F) less than its temperature rating		25°C (45°F) less than its temperature rating	
	6. Varnished cloth insulation	60	(108)		

F.	GENERAL				
	1. Air Filter	50	(90)		
	2. Flue gases ⁿ	517	(930)		
	3. Operating knobs, handles, and levers ^e				
	a. Metallic	50	(122)	<u>50</u>	<u>(122)</u>
	b. Glass	78	(172)	<u>78</u>	<u>(172)</u>
	c. Plastic ^{po}	85	(185)	<u>85</u>	<u>(185)</u>
	d. Wood	150	(302)	<u>150</u>	<u>(302)</u>
	4. Surfaces of appliance at points of zero clearance to test structure	65	(117)		
	5. Surface of floor beneath and within 3 feet (0.91 m) of appliance to be classified for installation on combustible floors	65	(117)		
	6. Surfaces of test enclosure (ceiling, walls, and the like)	65	(117)		
e	Handle temperatures are maximum temperatures, based on ambient temperature of 21 °C (70 °F)				
po	Category includes plastic with a metal plating not more than 0.005 inch (0.13 mm) thick; and metal with a plastic or vinyl covering not less than 0.005 inch (0.13 mm) thick.				

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