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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: December 30, 2012

### APSP (Association of Pool and Spa Professionals)

#### Revision

BSR/APSP-15-201x, Residential Swimming Pool and Spa Energy Efficiency (revision of ANSI/APSP-15-2011)

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

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Bernice Crenshaw, (703) 838-0083 x150, [bcrenshaw@APSP.org](mailto:bcrenshaw@APSP.org)

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

#### Addenda

BSR/ASHRAE/IES Addendum an to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This modification to the first public review of addendum 'an' allows the option to use energy rates either from actual local rates or EIA state data, where approved by the building official when using Appendix C.

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

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

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

#### Addenda

BSR/ASHRAE/IES Addendum ar to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum corrects the definitions for walk-in coolers and walk-in freezers.

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

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

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

#### Addenda

BSR/ASHRAE/IES Addendum bs to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum reduces occupancy threshold for demand-controlled ventilation from greater than 40 people per 1000 ft<sup>2</sup> to equal to or greater than 25 people per 1000 ft<sup>2</sup> with exemptions for certain occupancies.

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

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

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

#### Addenda

BSR/ASHRAE/IES Addendum ca to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

The proposed addendum requires that vestibule heating be locked out when outside air is above 45 F, the same temperature that lockout of freeze protection or ice melting systems is required in section 6.4.3.8. An exception is allowed when the vestibule is unheated or tempered with transfer air rather than directly heated.

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

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

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

#### Addenda

BSR/ASHRAE/IES Addendum cb to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum removes the 10,000-cfm threshold for optimum start and adds a threshold for systems controlled by DDC. The addendum also expands the requirement beyond air-based systems so that convectors and radiant systems would be included. Language is added so it is clear that optimum start is only required for systems with setback control requirements.

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

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

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

#### Addenda

BSR/ASHRAE/IES Addendum cc to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum adds minimum efficiencies for both axial- and centrifugal-fan evaporative condensers with R-507A as the test fluid to Table 6.8.1G. Because of the numerous halocarbon refrigerants that can be utilized, a footnote has been added to the table that clarifies that evaporative condenser models intended for use with halocarbon refrigerants other than R-507A must meet the minimum efficiency requirements listed for R-507A as the test fluid.

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

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

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

BSR/ASHRAE/IES Addendum cd to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum clarifies what to do with other piping system accessories that are not in series with the piping circuit, such as expansion tanks, fill lines, chemical feeders, and drains, and were not intended to be included because they do not have the same heat losses/gains and pressure drop.

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

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

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

BSR/ASHRAE/IES Addendum ce to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum establishes package single zone systems as the baseline HVAC system type for all retail occupancies of two stories and less. Prior to this change, large retail facilities would have VAV reheat baseline systems which are not at all common in that building type.

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

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

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

BSR/ASHRAE/IES Addendum cf to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

Since the publication of addendum f (which established baseline building window-to-wall ratios for different building types in Appendix G), new data has become available that has enabled the establishment of a window-to-wall ratio for retail strip mall buildings, which is added in this addendum.

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

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

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

BSR/ASHRAE/IES Addendum ck to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum requires the use of dual maximum control for VAV zone control when the building has DDC controls.

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

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

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

BSR/ASHRAE/IES Addendum cl to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This proposal updates the IEER values for air-cooled and water-cooled air conditioners and heat pumps above 65,000 Btu/h. Depending on the cooling capacity and product classes, the new IEERs are between 7 and 13% better than the values they are replacing. The new IEERs will become effective on January 1, 2016.

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

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

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

BSR/ASHRAE/IES Addendum cn to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum allows laboratory designs that incorporate strategies to reduce peak airflows and minimum unoccupied airflows to document energy savings associated with reduced outside air volumes.

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

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

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

BSR/ASHRAE/IES Addendum co to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum modifies the Lighting Power Densities in Table 9.5.1 to match the recommended light levels in the 10th Edition of the IES Lighting Handbook.

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

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

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

BSR/ASHRAE/IES Addendum cp to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This revision corrects a value in table 5-5 for steel joist floors that was not correctly edited when the 4 public review drafts of addendum bb were being processed.

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

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

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

### Addenda

BSR/ASHRAE/IES Addendum cr to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum modifies Table 9.6.1 to correct the required light levels for hospital corridors, assisted living dining spaces, and retail sales spaces. It also adds a new lighting power density for very small storage spaces, and modifies the living recreation room space type.

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

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

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

### Addenda

BSR/ASHRAE/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 189.1-2011)

The purpose of this ISC to add some clarification to the requirements proposed by addendum b on flooring systems.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Bert Etheredge, 404-636-8400, [betheredge@ashrae.org](mailto:betheredge@ashrae.org)

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

### Addenda

BSR/ASHRAE/USGBC/IES Addendum 189.1z-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

Addendum z ISC adds new requirements in Table C-16 in Appendix C, of ASHRAE Standard 189.1, which covers efficiency requirements for commercial refrigeration equipment.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Bert Etheredge, 404-636-8400, [betheredge@ashrae.org](mailto:betheredge@ashrae.org)

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

### Addenda

BSR/ASHRAE/USGBC/IES Addendum 189.1r-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

This addendum adds references to Standard 170, Ventilation of Health Care Facilities.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Bert Etheredge, 404-636-8400, [betheredge@ashrae.org](mailto:betheredge@ashrae.org)

## ISA (ISA)

### New National Adoption

BSR/ISA 60079-31 (12.10.03)-201x, Explosive Atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" (national adoption of IEC 60079-31 with modifications and revision of ANSI/ISA 60079-31 (12.10.03)-2009)

This standard is applicable to electrical equipment protected by enclosure and surface temperature limitation for use in explosive dust atmospheres. It specifies requirements for design, construction, and testing of electrical equipment.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Eliana Brazda, (919) 990-9228, [ebrazda@isa.org](mailto:ebrazda@isa.org)

## NSF (NSF International)

### Revision

BSR/NSF 342-201x (i2), Sustainability Assessment for Wallcovering Products (revision of ANSI/NSF 342-2010)

Issue 2: The purpose of this ballot is to revise language in Sections 7.2.2 and 8.2.2.2.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Maureen Sertich, 734-214-6233, [msertich@nsf.org](mailto:msertich@nsf.org)

## UL (Underwriters Laboratories, Inc.)

### New Standard

BSR/UL 2594-201X, Standard for Safety for Electric Vehicle Supply Equipment (new standard)

This Standard covers conductive electric vehicle (EV) supply equipment with a primary source voltage of 600 V ac or less, with a frequency of 60 Hz, and intended to provide ac power to an electric vehicle with an on-board charging unit. This Standard covers electric vehicle supply equipment intended for use where ventilation is not required.

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

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

## UL (Underwriters Laboratories, Inc.)

### Revision

BSR/UL 69-201x, Standard for Safety for Electric-Fence Controllers (revision of ANSI/UL 69-2011)

(1) Revision to scope; (2) Software-managed outputs; and (3) Addition and revision of requirements to relocate component standard references from Appendix A into the body of the Standard as component requirements.

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

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

## Comment Deadline: January 14, 2013

### APA (APA - The Engineered Wood Association)

#### *New Standard*

BSR/APA PRS 610.1-201x, Standard for Performance-Rated Structural Insulated Panels in Wall Applications (new standard)

This standard covers manufacturing, qualification, quality assurance, and trademarking requirements for structural insulated panels used in wall applications.

Single copy price: Free

Obtain an electronic copy from: [borjen.yeh@apawood.org](mailto:borjen.yeh@apawood.org)

Order from: Borjen Yeh, (253) 620-7467, [borjen.yeh@apawood.org](mailto:borjen.yeh@apawood.org)

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

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

#### *Revision*

BSR/ASAE EP364.4 MONYEAR-201x, Installation and Maintenance of Farm Standby Electric Power (revision and redesignation of ANSI/ASAE EP364.3 -2006 (R2012))

Provides information to assist installers, maintenance personnel, operators and others in the proper installation, operation, and maintenance of farm standby electrical systems. This Engineering Practice covers both engine-driven and tractor-driven generators for farm standby electrical power service as defined in EGSA-101G, EGSA-101S, and EGSA-101P.

Single copy price: \$55.00

Obtain an electronic copy from: [vangilder@asabe.org](mailto:vangilder@asabe.org)

Order from: Carla VanGilder, (269) 932-7015, [vangilder@asabe.org](mailto:vangilder@asabe.org)

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

### ASCE (American Society of Civil Engineers)

#### *Revision*

BSR/ASCE 21-201x, Automated People Mover Standards (revision, redesignation and consolidation of ANSI/ASCE T&DI 21-2006, ANSI/ASCE T&DI 21.2-2008, ANSI/ASCE T&DI 21.3-2008, and ANSI/ASCE T&DI 21.4 -2008)

ANSI/ASCE/T&DI 21 presents, in four ANS-designated parts, the minimum requirements for the design, construction, operation, and maintenance of APM systems. Part 1 covers the operating environment, safety, system dependability, automatic train control, and communications. Part 2 provides information on vehicles and propulsion and braking systems (PBS).

Single copy price: Free

Obtain an electronic copy from: [jneckel@asce.org](mailto:jneckel@asce.org)

Order from: James Neckel, (703) 295-6176, [jneckel@asce.org](mailto:jneckel@asce.org)

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

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

#### *Addenda*

BSR/ASHRAE/IES Addendum aq to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This second public review of addendum ar makes minor changes to the 1st public review to improved clarity and to address issues identified in sections 6.5.1.3.a and 6.5.3.2.1.

Single copy price: \$35.00

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

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

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

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

#### *Addenda*

BSR/ASHRAE/IES Addendum ch to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2010)

This addendum makes changes to the requirements for air- and water-cooled chillers as defined in section 6.4.2.1 and the efficiency requirements listed in table 6.8.1C. This change is a continuation of the efficiency improvements that were implemented in 2010 by further improving the efficiency requirements.

Single copy price: \$35.00

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

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

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

#### *Addenda*

BSR/ASHRAE/USGBC/IES Addendum 189.1u-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

The purpose of this addendum is to strengthen the standard's stormwater management requirements.

Single copy price: Free

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

Order from: Bert Etheredge, 404-636-8400, [betheredge@ashrae.org](mailto:betheredge@ashrae.org)

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

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

### **Addenda**

BSR/ASHRAE/USGBC/IES Addendum 189.1v-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

This addendum corrects the SI units used for Water Factor, limits the full-flush volume for all toilets to 1.28 gal per flush, limits kitchen faucet capacity to 1.8 gpm, and sets limits on the use of municipal reclaimed water for irrigation.

Single copy price: Free

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

Order from: Bert Etheredge, 404-636-8400, betheredge@ashrae.org

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

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

### **Revision**

BSR/ASHRAE Standard 105-201x, Standard Methods for Determining, Expressing and Comparing Building Energy Performance and Greenhouse Gas Emissions (revision of ANSI/ASHRAE Standard 105-2007)

This revision of ANSI/ASHRAE Standard 105 provides a method of energy performance determination, expression, and comparison that can be applied to any building. After review of the comments from the first public review and further committee work the following independent substantive changes (ISC) are offered for public review.

Single copy price: \$35.00

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

Order from: Send request to 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>

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

### **Revision**

BSR ATIS 0600333-201x, Grounding and Bonding of Telecommunications Equipment (revision and redesignation of ANSI ATIS 0300333-2007)

This standard defines and describes the grounding and bonding topologies commonly used for the installation of network telecommunications equipment in central offices and similar-type facilities. It addresses the baseline grounding and bonding requirements for telecommunications equipment, the associated dc and ac power facilities, and the interfacing of co-located telecommunications systems installed in central offices and similar facilities.

Single copy price: \$200.00

Obtain an electronic copy from: [kconn@atis.org](mailto:kconn@atis.org)

Order from: Kerriane Conn, (202) 434-8841, [kconn@atis.org](mailto:kconn@atis.org)

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

## **AWWA (American Water Works Association)**

### **New Standard**

BSR/AWWA B130-201x, Membrane Bioreactor (new standard)

This standard sets minimum requirements for membrane bioreactor (MBR) systems for water reclamation and/or wastewater treatment systems.

Single copy price: \$20.00

Obtain an electronic copy from: [vdavid@awwa.org](mailto:vdavid@awwa.org)

Order from: Paul Olson, (303) 347-6178, [polson@awwa.org](mailto:polson@awwa.org)

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

## **ECA (Electronic Components Association)**

### **New Standard**

BSR/EIA 364-61-201x, Rework Resistance to Soldering Heat Test Procedure for Electrical Connectors and Sockets (new standard)

This standard establishes a test method for determining if connectors or sockets can withstand exposure to solder rework conditions using either soldering iron, solder pot/fountain, or hot gas/vapor techniques. It is important to note that compliant pin connectors or sockets can be affected by solder rework if they are in close proximity to other connectors or sockets undergoing solder rework.

Single copy price: \$73.00

Obtain an electronic copy from: [global.ihs.com](http://global.ihs.com) 1-877-413-5184

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

Send comments (with copy to psa@ansi.org) to: Edward Mikoski, (703) 907-8023, [emikoski@eciaonline.org](mailto:emikoski@eciaonline.org)

## **ECA (Electronic Components Association)**

### **New Standard**

BSR/EIA 364-63-201x, Accessory Thread Strength Test Procedure for Circular Electrical Connectors (new standard)

This test procedure establishes a test method to determine whether accessory thread strength and portion of the connector that accepts cable clamps and "J" adaptors shall be capable of withstanding torque requirements specified in the referencing document.

Single copy price: \$75.00

Obtain an electronic copy from: [global.ihs.com](http://global.ihs.com) 1-877-413-5184

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

Send comments (with copy to psa@ansi.org) to: Edward Mikoski, (571) 323-0253, [emikoski@eciaonline.org](mailto:emikoski@eciaonline.org)

## **FM (FM Approvals)**

### **New Standard**

BSR/FM 3640-201x, Land Mobile Radios for Use in Class I, Division 1 Hazardous (Classified) Locations (new standard)

Provides requirements for the construction and testing, utilizing a double protection method, of Land Mobile Radios or parts of such apparatus, whose circuits are incapable of causing ignition in: Classes I, Division 1 hazardous (classified) locations as defined in Article 500 of the National Electrical Code (R), ANSI/NFPA 70 (NEC (R)).

Single copy price: Free

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

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

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

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

BSR C136.20-201x, Roadway and Area Lighting Equipment - Fiber Reinforced Composite (FRC) Lighting Poles (revision of ANSI C136.20-2008)

This standard applies to fiber-reinforced composite (FRC) lighting poles used for roadway and area lighting. This standard includes nomenclature, dimensional data, performance criteria, and some interchangeability features for standard poles as well as those that must meet breakaway requirements for poles as described in Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, AASHTO LTS.

Single copy price: \$47.00

Obtain an electronic copy from: [megan.hayes@nema.org](mailto:megan.hayes@nema.org)

Order from: Megan Hayes, (703) 841-3285, [megan.hayes@nema.org](mailto:megan.hayes@nema.org)

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

**NEMA (ASC C18) (National Electrical Manufacturers Association)****Revision**

BSR C18.3M, Part 1-201x, Portable Lithium Primary Cells and Batteries - General and Specifications (revision of ANSI C18.3M, Part 1-2008)

This standard applies to portable lithium primary cells and batteries. This edition includes the following electrochemical systems: (a) Lithium/carbon monofluoride; (b) Lithium/manganese dioxide; and (c) Lithium/iron disulfide.

Single copy price: \$88.00

Obtain an electronic copy from: [www.nema.org](http://www.nema.org)

Order from: [www.nema.org](http://www.nema.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Andrei Moldoveanu, (703) 841-3290, and [\\_moldoveanu@nema.org](mailto:_moldoveanu@nema.org)

**PLASA (PLASA North America)****New Standard**

BSR/PLASA E1.45-201x, Unidirectional Transport of IEEE 802 data frames over ANSI E1.11 (DMX512-A) (new standard)

This standard defines a minimal method to transport IEEE 802 data frames unidirectionally over ANSI E1.11 physical links using an Alternate START Code. The primary motivation is to allow communication of 802 data to luminaires over an ANSI E1.11 DMX512-A datalink for data transmission from those luminaires using Visible Light Communication, IEEE 802.15.7. However, this standard may be used to transport any 802 data for any purpose.

Single copy price: Free

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

Order from: Karl Ruling, (212) 244-1505, [karl.ruling@plasa.org](mailto:karl.ruling@plasa.org)

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

**PLASA (PLASA North America)****Revision**

BSR E1.19-201x, Recommended Practice for the Use of Class A Ground-Fault Circuit Interrupters (GFCIs) Intended for Personnel Protection in the Entertainment Industry (revision of ANSI E1.19-2009)

The standard is intended to offer guidance, in accordance with other existing relevant standards, on how to select, install, use, and maintain ground fault protection devices in the entertainment industry to protect persons from shock and persons and property from fire. The revisions are to incorporate new information about avoiding nuisance tripping.

Single copy price: Free

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

Order from: Karl Ruling, (212) 244-1505, [karl.ruling@plasa.org](mailto:karl.ruling@plasa.org)

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

**TechAmerica****New Standard**

BSR/TECHAMERICA TA-STD-0017-201x, Product Support Analysis (new standard)

This standard provides a single, uniform approach for conducting those activities necessary to cause supportability requirements to be an integral part of a system requirements and design, defines support requirements that are optimally related to the design and to each other, defines the required support during the operational phase and prepares attendant data products.

Single copy price: \$97.00

Obtain an electronic copy from: <http://www.techamerica.org/standards> and click on the Online Standards store link

Order from: 800-699-9277

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

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

BSR/UL 1973-201x, Batteries for Use in Light Electric Rail (LER) Applications and Stationary Applications (new standard)

This standard covers batteries for use as energy storage for stationary applications such as for PV, wind turbine storage or for UPS, etc. applications. These requirements also cover light electric rail (LER) applications and stationary rail applications such as rail substations. These batteries are intended for installation within either the rail car or within a sheltered stationary location such as a rail substation.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Megan VanHeirseesele, (847) 664-2881, [Megan.M.VanHeirseesele@ul.com](mailto:Megan.M.VanHeirseesele@ul.com)

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

BSR/UL 636-2008 (R201x), Standard for Safety for Holdup Alarm Units and Systems (reaffirmation of ANSI/UL 636-2008)

These requirements cover holdup alarm systems of the remote-station type intended for installation in banks, stores, cashiers' cages, pay offices, and the like to provide a means of transmitting a silent call for help in the event of interior robbery. These systems are divided into the following three classes: Bandit-Resisting Enclosure and Alarm, Semiautomatic Alarm, and Manual Alarm.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Megan Sepper, (847) 664-3411, [Megan.M.Sepper@ul.com](mailto:Megan.M.Sepper@ul.com)

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

BSR/UL 60079-7-2008 (R201x), Standard for Safety for Explosive Atmospheres - Part 7: Equipment Protection by Increased Safety "e" (reaffirmation of ANSI/UL 60079-7-2008)

Reaffirmation of the Fourth Edition of the Standard for Explosive Atmospheres - Part 7: Equipment Protection by Increased Safety "e", UL 60079-7 as an American National Standard.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Vickie Hinton, (919) 549-1851, [vickie.t.hinton@ul.com](mailto:vickie.t.hinton@ul.com)

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

BSR/UL 153-201X, Standard for Safety for Portable Electric Luminaires (revision of ANSI/UL 153-2011)

The following changes in requirements to UL 153, are being proposed: (1) Add LPS criteria for Class 2 circuits; (2) Minimum wire size for Class 2 conductors in paragraph 27.1.1; (3) Revise requirements for swag (chain-suspended) units; (4) Revise Dielectric Voltage Withstand Test requirements; (5) Delete Transformer Voltage Output Test; (6) Clarify markings for convertible units; and (7) Clarify conditions for Production Line Dielectric Withstand Test.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Heather Sakellariou, (847) 664-2346, [Heather.Sakellariou@ul.com](mailto:Heather.Sakellariou@ul.com)

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

BSR/UL 199-201x, Standard for Safety for Automatic Sprinklers for Fire-Protection Service (revision of ANSI/UL 199-2008)

The following changes to UL 199 are being proposed: (1) Revisions to more closely align text with NFPA 13 and other sprinkler standards, clarify requirements and update testing details; (2) New air bath test for glass bulb sprinklers; (3) New heat resistance test; (4) Protection of glass bulb tips; and (5) Control mode-specific application (CMSA) sprinklers.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Raymond Suga, (631) 546-2593, [raymond.m.suga@ul.com](mailto:raymond.m.suga@ul.com)

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

BSR/UL 330-201x, Standard for Safety for Hose and Hose Assemblies for Dispensing Flammable Liquids (revision of ANSI/UL 330-2011)

The following is being proposed: Revision to scope of standard regarding length of hose assemblies.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

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

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

BSR/UL 749-201X, Standard for Safety for Household Dishwashers (revision of ANSI/UL 749-2007a)

This re-circulation proposal provides revisions to the UL 749 proposals dated 7-1-11.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Nicolette Allen, (919) 549-0973, [Nicolette.Allen@us.ul.com](mailto:Nicolette.Allen@us.ul.com)

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

BSR/UL 870-201x, Wireways, Auxiliary Gutters, and Associated Fittings (revision of ANSI/UL 870-2008)

(1) Clarification that electrical continuity needs to be determined between wireways and covers and fittings and covers; and (2) Clarification of wireway-type rating marking location.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Megan VanHeirseesele, (847) 664-2881, [Megan.M.VanHeirseesele@ul.com](mailto:Megan.M.VanHeirseesele@ul.com)



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

BSR/UL 1077-201X, Standard for Safety for Supplementary Protectors for Use in Electrical Equipment (revision of ANSI/UL 1077-2009)

Clarification of the Insulating Material Requirements in Clause 8.2.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

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

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

BSR/UL 1703-201x, Standard for Flat-Plate Photovoltaic Modules and Panels (revision of ANSI/UL 1703-2012a)

Additional appendix with retest guidelines for informational purposes.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Susan Malohn, (847) 664-1725, [Susan.P.Malohn@ul.com](mailto:Susan.P.Malohn@ul.com)

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

BSR/UL 2200-201X, Standard for Safety for Stationary Engine Generator Assemblies (revision of ANSI/UL 2200-2011)

(1) Revisions to the separation of circuits requirements to provide new options; (2) Addition of accessory requirements; (3) Addition of tests for low-pressure propane and natural-gas flexible hoses and fittings; (4) Addition of marking and instruction manual requirements for utility interactive engine generators and microturbines with their associated control systems; (5) Working space requirements, new section 7.3A, to meet requirements of the NEC; and (6) Clarification to scope.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Elizabeth Sheppard, (847) 664-3276, [Elizabeth.H.Sheppard@ul.com](mailto:Elizabeth.H.Sheppard@ul.com)

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

BSR/UL 2556-201x, Standard for Safety for Wire and Cable Test Methods (revision of ANSI/UL 2556-2007)

Proposed new edition of UL 2556.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Camille Alma, (631) 546-2688, [Camille.A.Alma@ul.com](mailto:Camille.A.Alma@ul.com)

**VC (ASC Z80) (The Vision Council)****Reaffirmation**

BSR Z80.23-2008 (R201x), Corneal Topography Systems - Standard Terminology, Requirements (reaffirmation of ANSI Z80.23-2008)

This American National Standard applies to instruments, systems, and methods that are intended to measure the shape of the cornea of the human eye over a majority of its central anterior surface. The measurements may be of the curvature of the surface in local areas, three-dimensional topographical measurements of the surface or other more global parameters used to characterize the surface. Instruments classified as ophthalmometers or keratometers are not covered by this standard.

Single copy price: \$56.00

Order from: Amber Robinson, (703) 740-1094, [arobinson@thevisioncouncil.org](mailto:arobinson@thevisioncouncil.org)

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

**VC (ASC Z80) (The Vision Council)****Revision**

BSR Z80.17-201x, Focimeters (revision of ANSI Z80.17-2008)

This standard specifies requirements for continuously indicating and digitally rounding focimeters with which the vertex powers and prismatic powers of spherical and astigmatic lenses, including lenses mounted in frames, can be measured and with which lenses can be oriented and marked.

Single copy price: \$56.00

Order from: Amber Robinson, (703) 740-1094, [arobinson@thevisioncouncil.org](mailto:arobinson@thevisioncouncil.org)

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

**VITA (VMEbus International Trade Association (VITA))****Stabilized Maintenance**

BSR/VITA 38-2003 (S201x), System Management on VMEbus (stabilized maintenance of ANSI/VITA 38-2003 (R2008))

This standard describes a methodology for using IPMI for System Management of VME systems.

Single copy price: \$25.00

Obtain an electronic copy from: [www.vita.com](http://www.vita.com)

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

**Comment Deadline: January 29, 2013****ASME (American Society of Mechanical Engineers)****Reaffirmation**

BSR/ASME PTC 19.5-2004 (R201x), Flow Measurement (reaffirmation of ANSI/ASME PTC 19.5-2004)

This Supplement describes the techniques and methods of all flow measurements required or recommended by the Performance Test Codes. Newer flow measurement techniques of comparably high accuracy are included to provide alternative flow measurements for special situations in which deviations from the requirements of a code are agreed to be necessary.

Single copy price: \$195.00

Order from: For Reaffirmations and Withdrawn standards please view our catalog at <http://www.asme.org/kb/standards>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Calvin Gomez, (212) 591-7021, [gomez@asme.org](mailto:gomez@asme.org)

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

BSR/ASME B89.1.13-201x, Micrometers (revision of ANSI/ASME B89.1.13-2001 (R2006))

This Standard is intended to provide the essential requirements for micrometers as a basis for mutual understanding between manufacturers and consumers. Outside, inside, and depth micrometers are described in the Standard.

Single copy price: Free

Order from: Mayra Santiago, ASME; ANSIBOX@asme.org

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

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

BSR/ASSE A10.9-201X, Concrete and Masonry Work Safety Requirements (revision of ANSI/ASSE A10.9-1997 (R2004))

Establishes safety requirements pertaining to concrete construction and masonry work in construction.

Single copy price: \$50.00

Obtain an electronic copy from: TFisher@asse.org

Order from: Timothy Fisher, (847) 768-3411, TFisher@ASSE.Org

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

**ASSE (ASC Z359) (American Society of Safety Engineers)****Revision**

BSR/ASSE Z359.13-201X, Personal Energy Absorbers and Energy Absorbing Lanyards (revision of ANSI/ASSE Z359.13-2009)

This standard establishes requirements for the performance, design, marking, qualification, instructions, inspection, maintenance and removal from service of energy-absorbing lanyards and personal energy absorbers for users within the capacity range of 130 to 310 pounds (59 - 140 kg.).

Single copy price: \$80.00

Obtain an electronic copy from: TFisher@ASSE.Org

Order from: Timothy Fisher, (847) 768-3411, TFisher@ASSE.Org

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

**Projects Withdrawn from Consideration**

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

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

BSR/ASME B89.1.2M-200x, The Calibration of Gage Blocks by Contact Comparison Methods (new standard)

**ASTM (ASTM International)**

ANSI/ASTM F2154-2001 (R2007), Specification for Sound-Absorbing Board, Fibrous Glass, Perforated Fibrous Glass Cloth Faced (withdrawal of ANSI/ASTM F2154-2001 (R2007))

**ASTM (ASTM International)**

BSR/ASTM D3149-2006 (R201x), Specification for Crosslinked Polyolefin Heat-Shrinkable Tubing for Electrical Insulation (reaffirmation of ANSI/ASTM D3149-2006)

**ASTM (ASTM International)**

BSR/ASTM F412-201x, Terminology Relating to Plastic Piping Systems (revision of ANSI/ASTM F412-2012)

**ASTM (ASTM International)**

BSR/ASTM F2087-2001 (R201x), Specification for Packing, Fiberglass, Braided, Rope, and Wick (reaffirmation of ANSI/ASTM F2087-2001 (R2007))

**ASTM (ASTM International)**

BSR/ASTM F2133-2001 (R201x), Test Methods for Determining Effects of Large Hydrocarbon Pool Fires on Insulated Marine Bulkheads and Decks, Constructed of Steel (reaffirmation of ANSI/ASTM F2133-2001 (R2007))

**ASTM (ASTM International)**

BSR/ASTM WK23226-201x, Specification for Multilayer Polyethylene-Polyamide (PE-PA) Pipe for Pressure Piping Applications (new standard)

**ASTM (ASTM International)**

BSR/ASTM WK31289-201x, Specification for Metric-Sized Black Crosslinked Polyethylene (PEX) Line Pipe, Fittings and Joining Methods (new standard)

**ASTM (ASTM International)**

BSR/ASTM WK32201-201x, Specification for Crosslinked Polyethylene (PEX) Tubing of 0.070 Wall and Fittings for Radiant Heating Systems up to 75 Psig (new standard)

**ASTM (ASTM International)**

BSR/ASTM WK33352-201x, Specification for Metric-Sized Black Crosslinked Polyethylene (PEX) Pipe, Fittings and Joints for Gas Applications (new standard)

**MHI (ASC MHC) (Material Handling Industry)**

BSR/MH10.8.5-199x, Packing Lists and Associated Documents (new standard)

**SHRM (Society for Human Resource Management)**

BSR/SHRM-02002-201x, Human Resource Indices for Investors (new standard)

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

BSR/UL 13-201x, Standard for Safety for Power-Limited Circuit Cables (revision of ANSI/UL 13-2011)

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

BSR/UL 746B-201x, Standard for Safety for Polymeric Materials - Long Term Property Evaluations (revision of ANSI/UL 746B-2011)

# **Corrections**

## **Incorrect Deadline**

**CGATS/ISO 15790-2005 (R2007), CGATS/ISO 12639-2004 (R2008), and CGATS/ISO 15930-3-2004/ISO 15930-3-2002 (R2007)**

The Call for Comment deadline for the reaffirmation of CGATS/ISO 15790-2005 (R2007), CGATS ISO 12639-2004 (R2008) and CGATS/ISO 15930-3-2004/ISO 15930-3-2002 (R2007) were listed in error in the November 23, 2012 Standards Action. The correct comment deadline is December 24, 2012.

# Call for Members (ANS Consensus Bodies)

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

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

**Office:** 1801 Alexander Bell Drive, Suite 500  
Reston, VA 20191-4344

**Contact:** Amy Barrett

**Phone:** 703-264-7546

**E-mail:** AmyB@aiaa.org

BSR/AIAA R-138-201x, Fabrication, Calibration, Usage of Inductive Magnetic Field Probes with Application to Electric Propulsion Testing (new standard)

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

**Office:** 35 Pinelawn Road, Suite 114E  
Melville, NY 11747

**Contact:** Susan Blaeser

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

**Fax:** (631) 390-0217

**E-mail:** sblaeser@aip.org; asastds@aip.org

BSR/ASA S3.54-201x, Spatial Audiometry in Real and Virtual Environments (new standard)

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

**Office:** 1800 East Oakton Street  
Des Plaines, IL 60018-2187

**Contact:** Timothy Fisher

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

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

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

BSR/ASSE A10.9-201X, Concrete and Masonry Work Safety Requirements (revision of ANSI/ASSE A10.9-1997 (R2004))

BSR/ASSE A10.32-201X, Fall Protection Systems for Construction and Demolitions (revision of ANSI/ASSE A10.32-2012)

## **ASSE (ASC Z359) (American Society of Safety Engineers)**

**Office:** 1800 East Oakton Street  
Des Plaines, IL 60018-2187

**Contact:** Timothy Fisher

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

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

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

BSR/ASSE Z359.13-201X, Personal Energy Absorbers and Energy Absorbing Lanyards (revision of ANSI/ASSE Z359.13-2009)

BSR/ASSE Z359.14-201X, Self-Retracting Devices for Personal Fall Arrest and Rescue Systems (revision of ANSI/ASSE Z359.14-2012)

## **NAAMM (National Association of Architectural Metal Manufacturers)**

**Office:** 800 Roosevelt Road, Building C  
Suite 312  
Glen Ellyn, IL 60137

**Contact:** Vernon (Wes) Lewis

**Phone:** (757) 489-0787

**Fax:** (757) 489-0788

**E-mail:** wlewis7@cox.net

BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (new standard)

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

**Office:** 1300 North 17th Street, Suite 1752  
Rosslyn, VA 22209

**Contact:** Megan Hayes

**Phone:** (703) 841-3285

**Fax:** (703) 841-3385

**E-mail:** megan.hayes@nema.org

BSR C136.20-201x, Roadway and Area Lighting Equipment - Fiber Reinforced Composite (FRC) Lighting Poles (revision of ANSI C136.20-2008)

## Call for Members (ANS Consensus Bodies)

### **AWWA (American Water Works Association)**

Office: 6666 West Quincy Avenue  
Denver, CO 80235-3098

Contact: Dawn Flancher

Phone: (303)-347-6195

Fax: (303)-795-1440

E-Mail: [dflancher@awwa.org](mailto:dflancher@awwa.org)

AWWA is seeking experts to serve on Standards Committees. Members provide technical guidance, review, and vote on revisions to ANSI/AWWA standards. Members are needed to represent General Interest (GI), Producers (P), and Users (U). There are currently openings on the following technical committees:

BSR/ANSI/AWWA 15.224 **Fire Hydrants** — GI / U

BSR/ANSI/AWWA 15.470 **Distribution System Operations and Management** — P

BSR/ANSI/AWWA 15.471 **Water Treatment Plant Operations and Management** — P

BSR/ANSI/AWWA 15.472 **Source Water Protection** — GI / U / P

BSR/ANSI/AWWA 15.474 **Business Practices for Operations and Management** — P

BSR/ANSI/AWWA 15.475 **Emergency Preparedness Practices** — P

# 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.

## ADA (American Dental Association)

### New National Adoption

ANSI/ADA 100, ISO 27020-2012, Brackets and Tubes for Use in Orthodontics (identical national adoption of ISO 27020:2010 and revision of ANSI/ADA 100-2004): 11/26/2012

ANSI/ADA 125, ISO 16409-2012, Manual Interdental Brushes (identical national adoption of ISO 16409:2006 and ISO 16409:2006/Amd 1:2010 and revision of ANSI/ADA Specification No. 125-2009): 11/26/2012

ANSI/ADA 96, ISO 9917-2012, Dental Water-Based Cements (national adoption of ISO 9917-1:2007 and ISO 9917-2:2010 with modifications and revision of ANSI/ADA 96-2000 (R2005)): 11/26/2012

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

### Addenda

ANSI/ASHRAE Addendum 55f-2012, Thermal Environmental Conditions for Human Occupancy (addenda to ANSI/ASHRAE Standard 55-2010): 11/22/2012

## ASME (American Society of Mechanical Engineers)

### New Standard

ANSI/ASME B30.29-2012, Self-Erecting Tower Cranes (new standard): 11/27/2012

### Revision

- \* ANSI/ASME B107.110-2012, Socket Wrenches (revision, redesignation and consolidation of ANSI/ASME B107.1-2007, ANSI/ASME B107.2-2002, ANSI/ASME B107.5M-2002, ANSI/ASME B107.10-2005, ANSI/ASME B107.12-2004, ANSI/ASME B107.33M-2002, and ANSI/ASME B107.34M-2003): 11/27/2012

## ASTM (ASTM International)

### New Standard

ANSI/ASTM F2975-2012, Test Method for Measuring the Field Performance of Commercial Kitchen Ventilation Systems (new standard): 10/23/2012

ANSI/ASTM F2976-2012, Test Method for Standard Practice for Determining the Field Performance of Commercial Kitchen Demand Control Ventilation Systems (new standard): 11/1/2012

### Reaffirmation

ANSI/ASTM D2310-2006 (R2012), Classification for Machine-Made "Fiberglass" Glass-Fiber-Reinforced Thermosetting-Resin Pipe (reaffirmation of ANSI/ASTM D2310-2006): 10/23/0122

ANSI/ASTM D5813-2004 (R2012), Specification for Cured-In-Place Thermosetting Resin Sewer Piping Systems (reaffirmation of ANSI/ASTM D5813-2004 (R2008)): 10/23/2012

ANSI/ASTM E2281-2008a (R2012), Practice for Process and Measurement Capability Indices (reaffirmation of ANSI/ASTM E2281-2008a): 10/23/2012

ANSI/ASTM F985-2000 (R2012), Specification for Panama Canal Pilot Platform (reaffirmation of ANSI/ASTM F985-2000 (R2006)): 10/23/2012

ANSI/ASTM F1003-2002 (R2012), Specification for Searchlights on Motor Lifeboats (reaffirmation of ANSI/ASTM F1003-2002 (R2007)): 10/23/2012

ANSI/ASTM F1014-2002 (R2012), Specification for Flashlights on Vessels (reaffirmation of ANSI/ASTM F1014-2002 (R2007)): 10/23/2012

ANSI/ASTM F1019M-2001 (R2012), Specification for Steel Deck Gear Storage Box (Metric) (reaffirmation of ANSI/ASTM F1019M-2001 (R2006)): 10/23/2012

ANSI/ASTM F1073-1987 (R2012), Specification for Door Fittings, for Watertight/Gastight/Airtight, Weathertight, and Non-Tight Doors, for Marine Use (reaffirmation of ANSI/ASTM F1073-1987 (R2007)): 10/23/2012

ANSI/ASTM F1106-87 (R2012), Specification for Warping Heads, Rope Handling Gypsy Head, Capstan Head (reaffirmation of ANSI/ASTM F1106-87 (R2006)): 10/23/2012

ANSI/ASTM F1198-1997 (R2012), Guide for Shipboard Fire Detection Systems (reaffirmation of ANSI/ASTM F1198-1997 (R2007)): 10/23/2012

ANSI/ASTM F1309-1998 (R2012), Practice for Installation Procedures for Fitting Chocks to Marine Machinery Foundations (reaffirmation of ANSI/ASTM F1309-1998 (R2008)): 10/23/2012

ANSI/ASTM F1755/F1755M-1996 (R2012), Specification for Solid State Bargraph Meters for Shipboard Use (Metric) (reaffirmation of ANSI/ASTM F1755/F1755M-1996 (R2007)): 10/23/2012

ANSI/ASTM F1835-1997 (R2012), Guide for Cable Splicing Installations (reaffirmation of ANSI/ASTM F1835-1997 (R2007)): 10/23/2012

ANSI/ASTM F1837M-1997 (R2012), Specification for Heat-Shrink Cable Entry Seals (Metric) (reaffirmation of ANSI/ASTM F1837M-1997 (R2007)): 10/23/2012

### Revision

ANSI/ASTM D1494-2012, Test Method for Diffuse Light Transmission Factor of Reinforced Plastics Panels (revision of ANSI/ASTM D1494-2001 (R2008)): 10/23/2012

ANSI/ASTM D2924-2012, Test Method for External Pressure Resistance of "Fiberglass" (revision of ANSI/ASTM D2924-2001 (R2006)): 10/23/2012

ANSI/ASTM D4551-2012, Specification for Poly(Vinyl Chloride) (PVC) Plastic Flexible Concealed Water-Containment Membrane (revision of ANSI/ASTM D4551-2001 (R2008)): 10/23/2012

ANSI/ASTM D5319-2012, Specification for Glass-Fiber Reinforced Polyester Wall and Ceiling Panels (revision of ANSI/ASTM D5319-2001 (R2008)): 10/23/2012

ANSI/ASTM D7547-2012, Specification for Unleaded Aviation Gasoline (revision of ANSI/ASTM D7547-2011): 11/1/2012

ANSI/ASTM E662-2012, Test Method for Specific Optical Density of Smoke Generated by Solid Materials (revision of ANSI/ASTM E662-2009): 11/1/2012

ANSI/ASTM E1169-2012, Practice for Conducting Ruggedness Tests (revision of ANSI/ASTM E1169-2007): 11/1/2012

ANSI/ASTM E2586-2012, Practice for Calculating and Using Basic Statistics (revision of ANSI/ASTM E2586-2012): 10/23/2012

ANSI/ASTM F991M-2012, Specification for Docking/Drain Plug and Boss Assemblies (Metric) (revision of ANSI/ASTM F991M-2004): 10/23/2012

ANSI/ASTM F1134-2012, Specification for Insulation Resistance Monitor for Shipboard Electrical Motors and Generators (revision of ANSI/ASTM F1134-1997 (R2007)): 10/23/2012

ANSI/ASTM F1207/F1207M-2012, Specification for Electrical Insulation Monitors for Monitoring Ground Resistance in Active Electrical Systems (Metric) (revision of ANSI/ASTM F1207/F1207M-1997 (R2007)): 10/23/2012

ANSI/ASTM F1484-2012, Test Methods for Performance of Steam Cookers (revision of ANSI/ASTM F1484-2004): 10/23/2012

ANSI/ASTM F1496-2012, Test Method for Performance of Convection Ovens (revision of ANSI/ASTM F1496-2006): 10/23/2012

ANSI/ASTM F1521-2012, Test Methods for Performance of Range Tops (revision of ANSI/ASTM F1521-2003 (R2008)): 10/23/2012

ANSI/ASTM F1669M-2012, Specification for Insulation Monitors for Shipboard Electrical Systems (Metric) (revision of ANSI/ASTM F1669M-1997 (R2007)): 10/23/2012

ANSI/ASTM F1970-2012, Specification for Special Engineered Fittings, Appurtenances or Valves for Use in Poly(Vinyl Chloride) (PVC) or Chlorinated Poly(Vinyl Chloride) (CPVC) Systems (revision of ANSI/ASTM F1970-2005): 11/1/2012

ANSI/ASTM F1973-2012, Specification for Factory Assembled Anodeless Risers and Transition Fittings in Polyethylene (PE) and Polyamide 11 (PA11) and Polyamide 12 (PA12) Fuel Gas Distribution Systems (revision of ANSI/ASTM F1973-2008): 11/1/2012

ANSI/ASTM F2508-2012, Practice for Validation and Calibration of Walkway Tribometers Using Reference Surfaces (revision of ANSI/ASTM F2508-2011): 11/1/2012

ANSI/ASTM F2736-2012, Specification for 6 to 30 in. (152 to 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe and Double Wall Pipe (revision of ANSI/ASTM F2736-2010): 11/1/2012

### **Withdrawal**

ANSI/ASTM F1754-1996, Guide for Marine Vessel Structural Inspection Considerations (withdrawal of ANSI/ASTM F1754-1996 (R2004)): 10/23/2012

## **B11 (B11 Standards, Inc.)**

### **Reaffirmation**

ANSI B11.6-2001 (R2012), Safety Requirements for Manual Turning Machines with or without Auto Control (reaffirmation of ANSI B11.6-2001 (R2007)): 11/27/2012

ANSI B11.8-2001 (R2012), Safety Requirements for Manual Milling, Drilling, & Boring Machines with or without Automatic Control (reaffirmation of ANSI B11.8-2001 (R2007)): 11/27/2012

ANSI B11.11-2001 (R2012), Safety Requirements for Gear and Spline Cutting Machines (reaffirmation of ANSI B11.11-2001 (R2007)): 11/27/2012

ANSI B11.13-1992 (R2012), Single and Multiple-Spindle Automatic Bar, and Chucking Machines - Safety Requirements for Construction, Care, and Use (reaffirmation of ANSI B11.13-1992 (R2007)): 11/27/2012

ANSI B11.15-2001 (R2012), Safety Requirements for Pipe, Tube and Shape Bending Machines (reaffirmation of ANSI B11.15-2001 (R2007)): 11/27/2012

ANSI B11.18-1997 (R2012), Safety Requirements for Machines Processing or Slitting Coiled or Non-Coiled Metal (reaffirmation of ANSI B11.18-1997 (R2006)): 11/27/2012

ANSI B11.21-2006 (R2012), Safety Requirements for Machine Tools Using Lasers for Processing Materials (reaffirmation of ANSI B11.21-2006): 11/27/2012

ANSI B11.22-2001 (R2012), Safety Requirements for Turning Centers and Automatic Numerically Controlled Turning Machines (reaffirmation of ANSI B11.22-2001 (R2007)): 11/27/2012

ANSI B11.23-2001 (R2012), Safety Requirements for Machining Centers and Automatic Numerically Controlled Milling, Drilling and Boring Machines (reaffirmation of ANSI B11.23-2001 (R2007)): 11/27/2012

ANSI B11.24-2001 (R2012), Safety Requirements for Transfer Machines (reaffirmation of ANSI B11.24-2001 (R2007)): 11/27/2012

## **BHMA (Builders Hardware Manufacturers Association)**

### **Revision**

\* ANSI/BHMA A156.20-2012, Strap and Tee Hinges, and Hasps (revision of ANSI/BHMA A156.20-2006): 11/28/2012

\* ANSI/BHMA A156.26-2012, Continuous Hinges (revision of ANSI/BHMA A156.26-2006): 11/28/2012

\* ANSI/BHMA A156.29-2012, Exit Locks, Exit Alarms, Alarms for Exit Devices (revision of ANSI/BHMA A156.29-2007): 11/28/2012

## **ECA (Electronic Components Association)**

### **Revision**

ANSI/EIA 364-45C-2012, Firewall Flame Test Procedure for Electrical Connectors (revision and redesignation of ANSI/EIA 364-45B-2011): 11/26/2012

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

### **New Standard**

ANSI/IEEE 1900.4a-2011, Standard for Architectural Building Blocks Enabling Network-Device Distributed Decision Making for Optimized Radio Resource Usage in Heterogeneous Wireless Access Networks - Amendment: Architecture and Interfaces for Dynamic Spectrum Access Networks in White Space Frequency Bands (new standard): 11/27/2012

ANSI/IEEE 11073-30200a-2011, Standard for Health Informatics - Point-of-Care Medical Device Communication - Part 30200: Transport Profile - Cable Connected - Amendment 1 (new standard): 11/27/2012

### **Revision**

ANSI/IEEE 515-2011, Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Trace Heating for Industrial Applications (revision of ANSI/IEEE 515-2004): 11/27/2012

ANSI/IEEE C57.12.20-2011, Standard for Overhead Type Distribution Transformers, 500 kVA and Smaller: High Voltage, 34 500 Volts and Below; Low Voltage, 7970/13 800Y Volts and Below (revision of ANSI/IEEE C57.12.20-2005): 11/27/2012

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

### **New National Adoption**

INCITS/ISO/IEC 15944-8:2012, Information technology - Business Operational View - Part 8: Identification of privacy protection requirements as external constraints on business transactions (identical national adoption of ISO/IEC 15944-8:2012): 11/26/2012

### **New Standard**

ANSI INCITS 497-2012, Information technology - Automation/Drive Interface - Commands - 3 (ADC-3) (new standard): 11/27/2012

## **MHI (ASC MHC) (Material Handling Industry)**

### **New Standard**

ANSI MH10.8.3-2002 (R2012), Standard for Material Handling - Syntax for High Capacity ADC Media (new standard): 11/21/2012

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

### **Revision**

- \* ANSI ICEA S-98-688-2012, ICEA Standard for Broadband TP Aircore, PE, CU (revision of ANSI/ICEA S-98-688-2006): 11/27/2012
- ANSI/ICEA S-108-720-2012, Extruded Insulation Power Cables Rated above 46 through 345 kV (revision of ANSI/ICEA S-108-720-2004): 11/27/2012

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

### **New Standard**

- ANSI/PYR1128-2013, Standard Method of Fire Test for Flame Breaks (new standard): 8/29/2012
- ANSI/PYR1129-2013, Standard Method of Fire Test for Covered Fuse on Consumer Fireworks (new standard): 8/29/2012
- ANSI/NFPA 1917-2013, Standard for Automotive Ambulances (new standard): 8/29/2012

### **Revision**

- ANSI/NFPA 13-2013, Standard for the Installation of Sprinkler Systems (revision of ANSI/NFPA 13-2010): 8/29/2012
- ANSI/NFPA 13R-2013, Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height (revision of ANSI/NFPA 13R-2010): 8/29/2012
- ANSI/NFPA 20-2013, Standard for the Installation of Stationary Pumps for Fire Protection (revision of ANSI/NFPA 20-2010): 8/29/2012
- ANSI/NFPA 59A-2013, Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG) (revision of ANSI/NFPA 59A-2009): 8/29/2012
- ANSI/NFPA 61-2013, Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities (revision of ANSI/NFPA 61-2007): 8/29/2012
- ANSI/NFPA 72-2013, National Fire Alarm and Signaling Code (revision of ANSI/NFPA 72-2010): 8/29/2012
- ANSI/NFPA 105-2013, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives (revision of ANSI/NFPA 105-2010): 8/29/2012
- ANSI/NFPA 150-2013, Standard on Fire and Life Safety in Animal Housing Facilities (revision of ANSI/NFPA 150-2009): 8/29/2012
- ANSI/NFPA 275-2013, Standard Method of Fire Tests for the Evaluation of Thermal Barriers Used Over Foam Plastic Insulation (revision of ANSI/NFPA 275-2009): 8/29/2012
- ANSI/NFPA 499-2013, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas (revision of ANSI/NFPA 499-2008): 8/29/2012
- ANSI/NFPA 1124-2013, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles (revision of ANSI/NFPA 1124-2006): 8/29/2012
- ANSI/NFPA 1127-2013, Code for High Power Rocketry (revision of ANSI/NFPA 1127-2007): 8/29/2012
- ANSI/NFPA 1144-2013, Standard for Reducing Structure Ignition Hazards from Wildland Fire (revision of ANSI/NFPA 1144-2007): 8/29/2012
- ANSI/NFPA 1500-2013, Standard on Fire Department Occupational Safety and Health Program (revision of ANSI/NFPA 1500-2007): 8/29/2012
- ANSI/NFPA 1582-2013, Standard on Comprehensive Occupational Medical Program for Fire Departments (revision of ANSI/NFPA 1582-2007): 8/29/2012

ANSI/NFPA 1951-2013, Standard on Protective Ensembles for Technical Rescue Incidents (revision of ANSI/NFPA 1951-2006): 8/29/2012

ANSI/NFPA 1971-2013, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting (revision of ANSI/NFPA 1971-2006): 8/29/2012

## **NSF (NSF International)**

### **Revision**

- \* ANSI/NSF 305 2012 (i14), Personal Care Products Containing Organic Ingredients (revision of ANSI/NSF 305-2011): 10/18/2012

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

### **Revision**

- ANSI/SCTE 118-2-2012, Program-Specific Ad Insertion - Content Provider to Traffic Communication Applications Data Model (revision of ANSI/SCTE 118-2-2007): 11/26/2012
- ANSI/SCTE 118-3-2012, Program-Specific Ad Insertion - Traffic System to Ad Insertion System File Format Specification (revision of ANSI/SCTE 118-3-2006): 11/26/2012

## **TOY-TIA (Toy Industry Association)**

### **Revision**

- \* ANSI Z315.1-2012, Safety Requirements for Tricycles (revision of ANSI Z315.1-2006): 11/26/2012

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

### **Reaffirmation**

ANSI/UL 471-2012 (R2012), Standard for Safety for Commercial Refrigerators and Freezers (reaffirmation of ANSI/UL 471-2012): 11/29/2012

### **Revision**

- \* ANSI/UL 217-2012, Standard for Safety for Single and Multiple Station Smoke Alarms (revision of ANSI/UL 217-2011): 11/20/2012
- ANSI/UL 471-2012a, Standard for Safety for Commercial Refrigerators and Freezers (revision of ANSI/UL 471-2012): 11/29/2012
- ANSI/UL 471-2012b, Standard for Safety for Commercial Refrigerators and Freezers (revision of ANSI/UL 471-2011): 11/29/2012
- \* ANSI/UL 1180-2012, Standard for Safety for Fully Inflatable Recreational Personal Flotation Devices (revision of ANSI/UL 1180-2010): 11/27/2012
- ANSI/UL 1206-2012a, Standard for Electric Commercial Clothes-Washing Equipment (revision of ANSI/UL 1206-2003 (R2012)): 11/29/2012

## **WCMA (Window Covering Manufacturers Association)**

### **Revision**

- \* ANSI/WCMA A100.1-2012, Standard for Safety of Corded Window Covering Products (revision of ANSI/WCMA A100.1-2007): 11/28/2012



# Project Initiation Notification System (PINS)

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

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

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

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

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Reston, VA 20191-4344

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BSR/AIAA R-138-201x, Fabrication, Calibration, Usage of Inductive Magnetic Field Probes with Application to Electric Propulsion Testing (new standard)

Stakeholders: Commercial and DoD satellite providers, electric propulsion test engineers at NASA, DoD, industry, and academia, NASA mission users.

Project Need: There is currently a lack of standardization across the community.

This document includes a description of magnetic field probes (BDOT) for electric propulsion testing. The document includes a description of the diagnostic, methodology of data collection, example data, applicability/ limitations of the diagnostic, calibration procedures, data uncertainty/error analysis, and mitigation recommendations.

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

**Office:** 35 Pinelawn Road, Suite 114E  
Melville, NY 11747

**Contact:** Susan Blaeser

**Fax:** (631) 390-0217

**E-mail:** sblaeser@aip.org; asastds@aip.org

\* BSR/ASA S3.54-201x, Spatial Audiometry in Real and Virtual Environments (new standard)

Stakeholders: Industry (audiometer manufacturers, hearing aid manufacturers, etc.), medical community (audiologists, hearing aids dispensers), military (all DoD), auditory research community.

Project Need: Localization of sounds is central to auditory perception. There are no standardized procedures or tests that exist in current clinical practice that assess listeners' ability to localize sounds in real or virtual environments.

This standard specifies procedures to be used for (1) designing the real and virtual test environments, (2) selecting stimuli to be used in spatial testing, (3) calibrating stimuli in the real and virtual environments, (4) measuring Head Related Transfer Functions (HRTFs) for use in creating stimuli for Virtual Spatial Audiometry, and (5) comparing the effectiveness of the real and virtual test environments.

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

**Office:** 2950 Niles Road  
St Joseph, MI 49085

**Contact:** Carla VanGilder

**Fax:** (269) 429-3852

**E-mail:** vangilder@asabe.org

\* BSR/ASABE S610-MONYEAR-201x, Non-Destructive Texture Evaluation of Agricultural Products (new standard)

Stakeholders: Food sorting and processing companies; growers; food distributors, retailers, chains and customers; and universities and research institutes.

Project Need: For many years, post-harvesting researchers, industries, food distributors, and customers have been looking to replace the destructive firmness measurements to assess fruit and vegetable firmness with a nondestructive measurement.

Technologies developed by several researchers and industries now offer nondestructive techniques to evaluate fruit and vegetable texture or firmness.

This proposed standard will include three methods for nondestructive testing of fruits and vegetables; low mass impact, acoustic response and NIR (near infrared) Spectroscopy.

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

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Reston, VA 20191

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BSR/ASCE/EWRI 12/13/14-201x, ASCE/EWRI 12-05 Standard Guidelines for the Design of Urban Subsurface Drainage, ASCE/EWRI 13-05 Standard Guidelines for the Installation of Urban Subsurface Drainage, and ASCE/EWRI 14-05 Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage with material developed within the past five years. (new standard)

Stakeholders: Federal transportation agencies; state DOTs; local jurisdictions and departments of public works; airports; private, commercial, industrial, and residential land developers.

Project Need: To create a consensus-based set of guidelines for the design, installation, operation and maintenance of urban subsurface drainage. Many DOTs have their own standards on this subject, but there is no single national consensus document.

The intent of these standard guidelines is to present state-of-the-art design guidance for urban subsurface drainage in a logical order. It updates ASCE/EWRI 12-05, Standard Guidelines for the Design of Urban Subsurface Drainage; ASCE/EWRI 13-05, Standard Guidelines for the Installation of Urban Subsurface Drainage; and ASCE/EWRI 14-05, Standard Guidelines for the Operation and Maintenance of Urban Subsurface Drainage with material developed within the past five years.

**ASPE (American Society of Plumbing Engineers)**

**Office:** 2980 S. River Road  
Des Plaines, IL 60018

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**E-mail:** gpienta@aspe.org

BSR/ASPE 100-201x, Plumbing Systems Commissioning (new standard)

Stakeholders: Plumbing engineers, designers, contractors, code officials, inspectors.

Project Need: While building commissioning guidelines are readily available, no standard specifically focusing on the commissioning of plumbing systems currently exists.

The standard will detail the methods for verifying that the plumbing systems in new and renovated commercial, industrial, and multifamily residential buildings were installed and perform as designed by the engineer and intended by the owner.

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

**Office:** 1800 East Oakton Street  
Des Plaines, IL 60018-2187

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

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

BSR/ASSE A10.32-201X, Fall Protection Systems for Construction and Demolitions (revision of ANSI/ASSE A10.32-2012)

Stakeholders: Safety, Health, and Environmental (SH&E) professionals working with fall protection/arrest hazards and exposures on construction and demolition sites.

Project Need: Based upon the consensus of the A10 ASC and the ASSE leadership

This standard establishes performance criteria for personal fall protection equipment and systems in construction and demolition and provides guidelines, recommendations for their use and inspection. It includes, but is not limited to; fall arrest, restraint, positioning, climbing, descending, rescue, escape, and training activities. Exceptions: This standard does not include lineman's body belts, pole straps, window washers belts, chest/waist harnesses, and sports equipment.

**ASSE (ASC Z359) (American Society of Safety Engineers)**

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Des Plaines, IL 60018-2187

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BSR/ASSE Z359.14-201X, Self-Retracting Devices for Personal Fall Arrest and Rescue Systems (revision of ANSI/ASSE Z359.14-2012)

Stakeholders: Safety, Health, and Environmental (SH&E) professionals working with fall protection/arrest hazards and exposures on construction and demolition sites.

Project Need: Based upon the consensus of the Z359 ASC and the ASSE leadership.

This standard establishes requirements for the performance, design, qualification testing, markings and instructions, inspections, maintenance and storage, and removal from service of self-retracting devices (SRDs) including self-retracting lanyards (SRLs), self-retracting lanyards with integral rescue capability (SRL-Rs), and self-retracting lanyards with leading edge capability (SRL-LEs).

**ASTM (ASTM International)**

**Office:** 100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959

**Contact:** Jeff Richardson

**Fax:** (610) 834-7067

**E-mail:** accreditation@astm.org

BSR/ASTM WK39632-201x, New Specification for Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and Fittings with Recycled Resins (new standard)

Stakeholders: Plastic Piping Systems industry.

Project Need: This specification covers requirements and test methods for materials, workmanship, dimensions, perforations, pipe stiffness, elongation, joint separation resistance, quality of extruded polyethylene, brittleness, bond, and marking of corrugated polyethylene (PE) pipe and fittings made with recycled resins.

<http://www.astm.org/DATABASE.CART/WORKITEMS/WK39632.htm>

BSR/ASTM WK39660-201x, New Practice for Procedures to Prevent Contamination in Plastic Gas Pipe and Fittings (new standard)  
Stakeholders: Plastic Piping Systems industry.  
Project Need: Plastic gas pipe and fittings. Improve quality of plastic gas piping products.

<http://www.astm.org/DATABASE.CART/WORKITEMS/WK39660.htm>

BSR/ASTM WK39699-201x, New Specification for Curling Headgear (new standard)

Stakeholders: Sports Equipment, Playing Surfaces, and Facilities industry.

Project Need: This specification covers headgear products intended for use in the sport of curling with particular reference to shock attenuation requirements. The reduce current head injuries that are occurring to players while on the ice surface. The users will be all those participating in the sport of curling.

<http://www.astm.org/DATABASE.CART/WORKITEMS/WK39699.htm>

#### CEA (Consumer Electronics Association)

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Arlington, VA 22202

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- \* BSR/CEA 709.3-1999 (R201x), Free-Topology Twisted-Pair Channel Specification (reaffirmation of ANSI/CEA 709.3-1999 (R2004))  
Stakeholders: Consumers, manufacturers.  
Project Need: To reaffirm ANSI/CEA 709.3, Free-Topology Twisted-Pair Channel Specification.

This document specifies the CEA-709.3 free-topology twisted-pair channel and serves as a companion document to the CEA-709.1 Control Network Protocol Specification. The channel supports communication at 78.125 kbps between multiple nodes, each of which consists of a transceiver, a protocol processor and application processor, a power supply, and application electronics.

#### CSA (CSA Group)

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Cleveland, OH 44131

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**E-mail:** cathy.rake@csagroup.org

- \* BSR Z21.50a-201x, Standard for Vented Gas Fireplaces (same as CSA 2.22a) (revision of ANSI Z21.50-2007, ANSI Z21.50a-2009, and ANSI Z21.50b-2009)  
Stakeholders: Manufacturers, utilities, consumers, testing agencies.  
Project Need: Update and revise text.

Details test and examination criteria for vented gas fireplace for use with natural and propane gases. The only function of a vented gas fireplace lies in the aesthetic effect of the flame; the appliance is not a source of heat.

- \* BSR Z21.60a-201x, Standard for Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces, (same as CSA 2.26a) (revision of ANSI Z21.60-2012)  
Stakeholders: Manufacturers, utilities, consumers, testing agencies.  
Project Need: Update and revise text.

Details test and examination criteria for decorative appliances for installation in solid-fuel burning fireplaces for use with natural gas and propane. This appliance is defined as a "self-contained, free-standing, gas-burning appliance designed for installation only in a solid-fuel burning fireplace and whose primary function lies in the aesthetic effect of the flame."

- \* BSR Z21.84a-201x, Standard for Manually-Lighted, Natural Gas Decorative Gas Appliances for Installation in Solid-Fuel Burning Fireplaces (revision of ANSI Z21.84-2012)  
Stakeholders: Manufacturers, consumers, utilities, testing agencies.  
Project Need: Update and revise text.

Details test and examination criteria for manually lighted, natural gas, decorative gas appliances for installation in solid-fuel burning fireplaces for use with natural gas only at a maximum input ratings of 90,000 Btu/hr. These appliances do not incorporate a pilot burner or an automatic gas ignition system. The main burner is intended to be lighted by hand each time the appliance is used.

- \* BSR Z21.88b-201x, Standard for Vented Gas Fireplace Heaters (same as CSA 2.33b) (revision of ANSI Z21.88-2009)  
Stakeholders: Manufacturers, utilities, consumers, testing agencies.  
Project Need: Update and revise text.

Test and examination criteria for vented gas fireplace heaters for use with natural and liquefied petroleum (propane) gases, which allows the view of flames and provides the simulation of a solid fuel fireplace and furnishes warm air to the space in which it is installed with or without duct connections. A vented gas-fired fireplace heater is designed to comply with minimum thermal efficiency requirements and may be controlled by an automatic thermostat.

#### IEEE (Institute of Electrical and Electronics Engineers)

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BSR/IEEE 487.2-201X, Standard for the Electrical Protection of Communication Facilities Serving Electric Supply Locations Through the Use of Optical Fiber Systems (new standard)

Stakeholders: Those utility (power) engineers that deal with the provisioning of communication circuits (or services) for electric utilities as well as those telecommunication engineers that deal with the provisioning of communication circuits (or services) into electric supply locations. Also the manufacturers of optical fiber systems.

Project Need: This project is part of a reorganization of IEEE 487-2007, IEEE Recommended Practice for the Protection of Wire-Line Communication Facilities Serving Electric Supply Locations, in which the main document is broken down into a family of related documents (i.e., dot-series) segregated on the basis of technology. Each subtending document will have portions of the existing 487-2007 moved into it. Std 487.2 will replace portions of the existing IEEE 1590-2009.

This standard presents engineering design procedures for the electrical protection of communication facilities serving electric supply locations through the use of optical fiber systems for the entire access facility. Other telecommunication alternatives such as radio and microwave systems are excluded from this document.

BSR/IEEE 487.3-201X, Standard for the Electrical Protection of Communication Facilities Serving Electric Supply Locations Through the Use of Hybrid Facilities (new standard)

Stakeholders: Those utility (power) engineers that deal with the provisioning of communication circuits (or services) for electric utilities as well as those telecommunication engineers that deal with the provisioning of communication circuits (or services) into electric supply locations. Also the manufacturers of optical fiber systems and hybrid systems.

Project Need: This project is part of a reorganization of IEEE 487-2007, IEEE Recommended Practice for the Protection of Wire-Line Communication Facilities Serving Electric Supply Locations, in which the main document is broken down into a family of related documents (i.e., dot-series) segregated on the basis of technology. Each subtending document will have portions of the existing 487-2007 moved into it. Std 487.3, along with Std 487.2, will replace the existing IEEE 1590-2009.

This standard presents engineering design procedures for the electrical protection of communication facilities serving electric supply locations through the use of metallic wire-line components in part of the communication circuit and optical fiber systems in the remainder of the communication circuit. Other telecommunication alternatives such as radio and microwave systems are excluded from this document.

BSR/IEEE 1032-201X, Guide for Protecting Transmission Static Var Compensators (new standard)

Stakeholders: Utilities, SVC manufacturers.

Project Need: This guide is needed to assist users to understand the functional requirements for implementation and design of a modern protection system for transmission Static Var Compensators (SVC).

This guide outlines the current practice of modern protection system design for SVCs. The main focus is on special protection schemes required for SVC applications and protection functions integrated in the SVC control system or IEDs.

BSR/IEEE 1129-201X, Guide for Online Monitoring of Large Synchronous Generators (new standard)

Stakeholders: All manufacturers of these machines.

Project Need: Large synchronous generators are one of the key components in generating stations. Online monitoring is crucial for the reliable operation of these large and expensive units, as recognized by NERC/FERC, INPO and others. The now-expired IEEE 1129-1992 Recommended Practice was written to aid users in identifying the most appropriate online monitoring devices and practice. This new guide is intended as an updated version of the expired standard.

This document describes the recommended practice for online monitoring of large synchronous generators with ratings of 10 MVA and above. The scope includes generators with salient-pole rotors, as well as generators with cylindrical rotors.

BSR/IEEE 1210-2004/Cor 1-201X, IEEE Standard Tests for Determining Compatibility of Cable-Pulling Lubricants with Wire and Cable - Corrigendum 1: Correction to Equations, Table 4 & Notes (addenda to ANSI/IEEE 1210-2005)

Stakeholders: Utilities, contractors, wire and cable installers, cable & lubrication manufacturers, and distributors.

Project Need: Corrects the errors identified during re-affirmation ballot.

Corrects the error in the Equation 1. Corrects the error in denominator of Equation 3. Corrects the misspelling in the Table 4 Legend. Corrects the subscript for the word "rho" in the Note.

BSR/IEEE 1293-201X, Standard Specification Format Guide and Test Procedure for Linear, Single-Axis, Non-Gyroscopic Accelerometers (revision of ANSI/IEEE 1293-2003 (R2009))

Stakeholders: Users, producers, and those with general interest in non-gyroscopic accelerometers to include MEMS sensor developers and users. This would include military, commercial, industrial, and academic fields.

Project Need: There is a need to standardize both manufacturer and user specifications for linear, single-axis, nongyroscopic accelerometers. There is also a need to provide industry standard test procedures for use in verifying these specifications. The benefit of this standard is that common ground will be established between manufacturers and users such that there will be no misunderstanding as to the meaning of a specified capability or performance requirement nor in the method(s) used to test.

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BSR/IEEE 1615-201X, Recommended Practice for Network Communication in Electric Power Substations (revision of ANSI/IEEE 1615-2007)

Stakeholders: Equipment vendors, regulatory organizations, system integrators.

Project Need: Since the creation of IEEE 1615-2007, there has been considerable advances in the field of substation network communications. Such areas as wireless technologies (WiMAX, LTE and Wi-Fi), security (video surveillance, access control), and enhanced reliability (HSR/PRP) present new risks and opportunities. This project will update this standard to address current technologies.

This document defines a recommended practice for the design, testing and operation of communications networks within, to and from electric power substations. Security considerations are included in the above. It does not establish a new underlying communications standard. Instead, the document presents guidelines and best practices for designing these communication networks.

BSR/IEEE 1857.2-201X, Standard for Advanced Audio Coding (new standard)

Stakeholders: Audio and video products (hardware or software) manufacturers or vendors; aural and visual content providers; video and audio service providers, including broadcasting operators; internet video service providers.

Project Need: There are some alternative specifications with similar purpose but they do not satisfy the need for balance between efficiency and complexity required for providing high-quality aural and visual service in limited bandwidth settings. The committee views standardization as essential for lowering the cost of solutions intended for low-bandwidth consumer devices.

This standard specifies audio compression, decompression and packaging tools and mechanism to support transmission and storage of the multimedia data over internet in a highly efficient way under constraints that include limited complexity and bandwidth.

BSR/IEEE 1857.3-201X, Standard for System of Advanced Audio and Video Coding (new standard)

Stakeholders: Audio and video products (hardware or software) manufacturers or vendors; aural and visual content providers; video and audio service providers, including broadcasting operators; internet video service providers.

Project Need: There are some alternative specifications with similar purpose but they do not satisfy the need for balance between efficiency and complexity required for providing high-quality aural and visual service in limited bandwidth settings. The committee views standardization as essential for lowering the cost of solutions intended for low-bandwidth consumer devices.

This part of the standard specifies the storage file formats and RTP (Real-time Transport Protocol) payload format for compressed video and audio data, such the compressed video data created by IEEE P1857 - Standard for Advanced Audio and Video Coding, and/or the compressed audio data created by an on-going project IEEE 1857.2 - Standard for Advanced Audio and Video Coding, Part 2: Audio.

BSR/IEEE 1881-201X, Standard Glossary of Stationary Battery Terminology (new standard)

Stakeholders: Stationary battery users, manufacturers, vendors, and integrators in fields such as telecommunications, electrical utilities, emergency and standby power systems, and UPS systems for information and communications technology or industrial process controls.

Project Need: Hundreds of terms are used within the stationary battery industry. Many of the terms are slang. Some are unique to specific situations. A survey of various sources (including IEEE documents) has shown as many as a dozen definitions for a single term. The goal of this project is to standardize the terminology and assist the user in its proper usage.

This standard defines terms currently in use in the field of stationary batteries. This standard does not include terms specific to battery manufacturing activities or to non-stationary battery applications such as motive, portable, marine, or other such applications.

BSR/IEEE 20000-2-201X, Information technology - Service management - Part 2: Guidance on the application of service management systems (identical national adoption of ISO/IEC JTC1 - ISO/IEC 20000-2)

Stakeholders: An organization seeking services from service providers and requiring assurance that their service requirements will be fulfilled; an organization that requires a consistent approach by all their service providers, including those in a supply chain; the service provider that intends to demonstrate its capability for the design, transition, delivery and improvement of services that fulfill service requirements; a service provider to monitor, measure and review its service management processes.

Project Need: This part of ISO/IEC 20000 provides examples and suggestions to enable organizations to interpret and apply ISO/IEC 20000-1. An integrated management system approach increases efficiency; establishes clear accountability and traceability; and enhances organizational planning, communication and control.

This part of ISO/IEC 20000 provides guidance on the application of an SMS [Service Management System] based on ISO/IEC 20000-1. This part of ISO/IEC 20000 provides examples and suggestions to enable organizations to interpret and apply ISO/IEC 20000-1, including references to other parts of ISO/IEC 20000 and other relevant standards.

BSR/IEEE C37.10.1-201X, Guide for the Selection of Monitoring for Circuit Breakers (revision of ANSI/IEEE C37.10.1-2000 (R2006))

Stakeholders: Circuit breaker suppliers and users.

Project Need: Revises the standard to reflect current methods of monitoring power circuit breakers.

The Guide provides direction in the selection of monitoring and the diagnostic parameters used for power circuit breakers. It provides guidance on appropriate parameters for various circuit-breaker technologies.

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BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (new standard)

Stakeholders: Engineers, architects, government agencies.

Project Need: This standard provides specifications for doors used in the construction industry.

This Standard provides guidance for those specifying steel doors and frames for the construction industry. This standard is in the standard CSI format.

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

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BSR/NFPA 11-201x, Standard for Low-, Medium-, and High-Expansion Foam (revision of ANSI/NFPA 11-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Fire-fighting foam is an aggregate of air-filled bubbles formed from aqueous solutions and is lower in density than flammable liquids. It is used principally to form a cohesive floating blanket on flammable and combustible liquids and prevents or extinguishes fire by excluding air and cooling the fuel. It also prevents reignition by suppressing formation of flammable vapors.

BSR/NFPA 12-201x, Standard on Carbon Dioxide Extinguishing Systems (revision of ANSI/NFPA 12-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Portable carbon dioxide equipment is covered in NFPA 10. The use of carbon dioxide for inerting is covered in NFPA 69. This standard contains minimum requirements for carbon dioxide fire-extinguishing systems. This standard includes only the necessary essentials to make it workable in the hands of those skilled in this field.

**BSR/NFPA 12A-201x, Standard on Halon 1301 Fire Extinguishing Systems (revision of ANSI/NFPA 12A-2009)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains minimum requirements for total flooding Halon 1301 fire extinguishing systems. It includes only the essentials necessary to make the standard workable in the hands of those skilled in this field. Only those skilled in this work are competent to design, install, maintain, decommission, and remove this equipment.

**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-2012)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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 assumes that the sprinkler system is designed to protect against a fire originating from a single ignition location.

**BSR/NFPA 13E-201x, Recommended Practice for Fire Department Operations in Properties Protected by Sprinkler and Standpipe Systems (revision of ANSI/NFPA 13E-2010)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This recommended practice provides basic procedures and information for use in fire department operations concerning properties equipped with certain fixed fire protection systems. The fixed systems covered in this recommended practice are interior automatic sprinkler systems, exterior sprinkler systems, and standpipe systems.

**BSR/NFPA 13-201x, Standard for the Installation of Sprinkler Systems (revision of ANSI/NFPA 13-2010)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard provides a range of sprinkler system approaches, design development alternatives, and component options that are all acceptable. Building owners and their designated representatives are advised to carefully evaluate proposed selections for appropriateness and preference. 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.

**BSR/NFPA 13R-201x, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies (revision of ANSI/NFPA 13R-2013)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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. This standard assumes that the sprinkler system shall be designed to protect against a fire originating from a single ignition location.

**BSR/NFPA 16-201x, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems (revision of ANSI/NFPA 16-2011)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains minimum requirements for the design, installation, and maintenance of foam-water sprinkler and spray systems. These systems shall be designed with the required density for either foam or water application as the controlling factor, depending on the design purpose of the system. It is not the intent of this standard to specify where foam-water sprinkler and spray protection is required.

**BSR/NFPA 20-201x, Standard for the Installation of Stationary Pumps for Fire Protection (revision of ANSI/NFPA 20-2010)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard deals with the selection and installation of pumps supplying liquid for private fire protection. The scope of this document shall include liquid supplies; suction, discharge, and auxiliary equipment; power supplies, including power supply arrangements; electric drive and control; diesel engine drive and control; steam turbine drive and control; and acceptance tests and operation.

**BSR/NFPA 24-201x, Standard for the Installation of Private Fire Service Mains and Their Appurtenances (revision of ANSI/NFPA 24-2012)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall cover the minimum requirements for the installation of private fire service mains and their appurtenances 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 used to carry water for fire service and other uses.

**BSR/NFPA 31-201x, Standard for the Installation of Oil-Burning Equipment (revision of ANSI/NFPA 31-2011)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the installation of stationary liquid-fuel-burning appliances, including but not limited to industrial-, commercial-, and residential-type steam, hot-water, or warm-air heating appliances; domestic-type range burners; space heaters; and portable liquid-fuel-burning equipment. This standard shall also apply to all accessories and control systems, whether electric, thermostatic, or mechanical, and all electrical wiring connected to liquid-fuel-burning appliances.

**BSR/NFPA 33-201x, Standard for Spray Application Using Flammable or Combustible Materials (revision of ANSI/NFPA 33-2011)**

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the spray application of flammable or combustible materials, as defined in this standard, either continuously or intermittently by any of the following methods: (1) Compressed air atomization; (2) Airless or hydraulic atomization; (3) Electrostatic application methods; or (4) Other means of atomized application.

BSR/NFPA 34-201x, Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids (revision of ANSI/NFPA 34-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to dipping, roll coating, flow coating, curtain coating, printing, cleaning, and similar processes, hereinafter referred to as coating processes or processes, in which articles or materials are passed through tanks, vats, or containers, or passed over rollers, drums, or other process equipment that contain flammable or combustible liquids. This standard shall also apply to cleaning processes that utilize a solvent vapor, such as vapor degreasing processes.

BSR/NFPA 45-201x, Standard on Fire Protection for Laboratories Using Chemicals (revision of ANSI/NFPA 45-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to laboratory buildings, laboratory units, and laboratory work areas whether located above or below grade in which chemicals, as defined, are handled or stored.

BSR/NFPA 55-201x, Compressed Gases and Cryogenic Fluids Code (revision of ANSI/NFPA 55-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This code shall apply to the installation, storage, use, and handling of compressed gases and cryogenic fluids in portable and stationary containers, cylinders, equipment, and tanks in all occupancies.

BSR/NFPA 56-201x, Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard applies to fire and explosion prevention during cleaning and purging activities for new and existing flammable gas piping found in electric-generating plant, industrial, institutional, and commercial applications. Coverage of piping systems shall extend from the point of delivery to the gas-consuming equipment isolation valve.

BSR/NFPA 59-201x, Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG) (revision of ANSI/NFPA 59-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the following: (1) Facilities that liquefy natural gas; (2) Facilities that store, vaporize, transfer, and handle liquefied natural gas (LNG); (3) The training of all personnel involved with LNG; and (4) The design, location, construction, maintenance, and operation of all LNG facilities.

BSR/NFPA 72-201x, National Fire Alarm and Signaling Code (revision of ANSI/NFPA 72-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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 73-201x, Standard for Electrical Inspections for Existing Dwellings (revision of ANSI/NFPA 73-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard provides criteria for identification of hazardous conditions of electrical systems in existing one-family, two-family, and multifamily dwellings, including mobile homes and manufactured homes.

BSR/NFPA 80-201x, Standard for Fire Doors and Other Opening Protectives (revision of ANSI/NFPA 80-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard regulates the installation and maintenance of assemblies and devices used to protect openings in walls, floors, and ceilings against the spread of fire and smoke within, into, or out of buildings. With the exception of fabric fire safety curtain assemblies, this standard addresses assemblies that have been subjected to standardized fire tests. (See Chapter 20).

BSR/NFPA 85-201x, Boiler and Combustion Systems Hazards Code (revision of ANSI/NFPA 85-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Technological advances in recent years and, in particular, the pervasiveness of microprocessor-based hardware, make it even more important that only highly qualified individuals be employed in applying the requirements of this code to operating systems. Each type of hardware has its own unique features and operational modes.

BSR/NFPA 91-201x, Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids (revision of ANSI/NFPA 91-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard provides minimum requirements for the design, construction, installation, operation, testing, and maintenance of exhaust systems for air conveying of vapors, gases, mists, and noncombustible particulate solids as they relate to fire and/or explosion prevention, except as modified or amplified by other applicable NFPA standards. This standard does not cover exhaust systems for conveying combustible particulate solids that are covered in other NFPA standards.

BSR/NFPA 92-201x, Standard for Smoke Control Systems (revision of ANSI/NFPA 92-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the design, installation, acceptance testing, operation, and ongoing periodic testing of smoke control systems. This standard incorporates methods for applying engineering calculations and reference models to provide a designer with the tools to develop smoke control system designs. The designs are based on select design objectives presented in Section 4.1.

BSR/NFPA 101A-201x, Guide on Alternative Approaches to Life Safety (revision of ANSI/NFPA 101A-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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 NFPA 101, Life Safety Code.

BSR/NFPA 105-201x, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives (revision of ANSI/NFPA 105-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall prescribe minimum requirements for smoke door assemblies for use in providing safety to life and protection of property from smoke.

BSR/NFPA 110-201x, Standard for Emergency and Standby Power Systems (revision of ANSI/NFPA 110-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard covers performance requirements for 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.

BSR/NFPA 111-201x, Standard on Stored Electrical Energy Emergency and Standby Power Systems (revision of ANSI/NFPA 111-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall cover performance requirements for stored electrical energy systems providing an alternate source of electrical power in buildings and facilities in the event that the normal electrical power source fails. Systems covered in this standard shall include power sources, transfer equipment, controls, supervisory equipment, and accessory equipment, including integral accessory equipment, needed to supply electrical power to the selected circuits.

BSR/NFPA 120-201x, Standard for Fire Prevention and Control in Coal Mines (revision of ANSI/NFPA 120-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall cover minimum requirements for reducing loss of life and property from fire and explosion in the following: (1) Underground bituminous coal mines; (2) Coal preparation plants designed to prepare coal for shipment; (3) Surface building and facilities associated with coal mining and preparation; and (4) Surface coal and lignite mines.

BSR/NFPA 122-201x, Standard for Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities (revision of ANSI/NFPA 122-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Because of the uniqueness and often remoteness of metal and nonmetal mines and ore-processing facilities, provisions in this standard could differ from commonly accepted fire-protection standards and guides devised for other types of occupancies. The provisions of this document are considered necessary to provide a reasonable level of protection from loss of life and property from fire and explosions. They reflect situations and the state of the art at the time the standard was issued.

BSR/NFPA 150-201x, Standard on Fire and Life Safety in Animal Housing Facilities (revision of ANSI/NFPA 150-2009)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall provide the minimum requirements for the design, construction, fire protection, and classification of animal housing facilities.

BSR/NFPA 160-201x, Standard for the Use of Flame Effects before an Audience (revision of ANSI/NFPA 160-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall provide requirements for the protection of the audience, support personnel, performers, the operator, assistants, and property where flame effects are used.

BSR/NFPA 170-201x, Standard for Fire Safety and Emergency Symbols (revision of ANSI/NFPA 170-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard presents symbols used for fire safety, emergency, and associated hazards.

BSR/NFPA 204-201x, Standard for Smoke and Heat Venting (revision of ANSI/NFPA 204-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the design of venting systems for the emergency venting of products of combustion from fires in buildings. The provisions of Chapters 4 through 10 shall apply to the design of venting systems for the emergency venting of products of combustion from fires in nonsprinklered, single-story buildings using both hand calculations and computer-based solution methods as provided in Chapter 9. Chapter 11 shall apply to venting in sprinklered buildings.



BSR/NFPA 253-201x, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source (revision of ANSI/NFPA 253-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This fire test response standard describes a procedure for measuring critical radiant flux behavior of horizontally mounted floor covering systems exposed to a flaming ignition source in a graded, radiant heat energy environment within a test chamber. This fire test response standard measures the critical radiant flux at flameout and provides a basis for estimating one aspect of fire exposure behavior for floor covering systems.

BSR/NFPA 262-201x, Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces (revision of ANSI/NFPA 262-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall prescribe the methodology to measure flame travel distance and optical density of smoke for insulated, jacketed, or both, electrical wires and cables and optical fiber cables that are to be installed in plenums and other spaces used to transport environmental air without being enclosed in raceways.

BSR/NFPA 265-201x, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Walls (revision of ANSI/NFPA 265-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard describes a test method for determining the contribution of textile or expanded vinyl wall coverings to room fire growth during specified fire exposure conditions. This test method shall be used to evaluate the flammability characteristics of textile or expanded vinyl wall coverings where such materials constitute the exposed interior surfaces of buildings and demountable, relocatable, full-height partitions used in open building interiors.

BSR/NFPA 276-201x, Standard Method of Fire Tests for Determining the Heat Release Rate of Roofing Assemblies with Combustible Above-Deck Roofing Components (revision of ANSI/NFPA 276-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard describes a method for determining the heat release rate from below the deck of roofing assemblies that have combustible above-deck roofing components when the assemblies are exposed to a fire from below the roof deck. The performance of the above-deck roofing assembly is evaluated by determining the heat release rate below the deck of the roof test specimen.

BSR/NFPA 284-201x, Standard Test Method for Mattresses for Correctional Occupancies (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Addresses the particular installation arrangements that are commonly found in these facilities, increase the exposure rate and relocate the burner location for applicable testing scenarios.

BSR/NFPA 286-201x, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth (revision of ANSI/NFPA 286-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard describes a method for determining the contribution of interior finish materials to room fire growth during specified fire-exposure conditions. The performance of all wall and ceiling covering systems is addressed in this standard.

BSR/NFPA 291-201x, Recommended Practice for Fire Flow Testing and Marking of Hydrants (revision of ANSI/NFPA 291-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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

BSR/NFPA 303-201x, Fire Protection Standard for Marinas and Boatyards (revision of ANSI/NFPA 303-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard applies to the construction and operation of marinas, boatyards, yacht clubs, boat condominiums, docking facilities associated with residential condominiums, multiple-docking facilities at multiple-family residences, and all associated piers, docks, and floats.

BSR/NFPA 307-201x, Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves (revision of ANSI/NFPA 307-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall provide general principles for the construction and fire protection of marine terminals, piers, and wharves. Nothing in this standard shall supersede any of the regulations of governmental or other regulatory authority. The provisions of this standard shall reflect situations and state-of-the-art techniques at the time the standard was issued.

BSR/NFPA 312-201x, Standard for Fire Protection of Vessels During Construction, Conversion, Repair, and Lay-Up (revision of ANSI/NFPA 312-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to vessels during the course of construction, conversion, repairs, or while laid up. This standard shall not apply to situations where it is in conflict with or superseded by requirements of any government regulatory agency.

BSR/NFPA 326-201x, Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair (revision of ANSI/NFPA 326-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the safeguarding of tanks or containers operating at nominal atmospheric pressure that contain or have contained flammable or combustible liquids or other hazardous substances and related vapors or residues. The procedures in this standard can also apply to pressurized tanks or pressurized containers that have been taken out of service and have had their operating pressure reduced to atmospheric pressure and are vented to atmosphere.

BSR/NFPA 329-201x, Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases (revision of ANSI/NFPA 329-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This recommended practice provides methods for responding to fire and explosion hazards resulting from the release of a flammable or combustible liquid, gas, or vapor that can migrate to a subsurface structure. Although this recommended practice is intended to address only fire and explosion hazards, other authorities should be consulted regarding the environmental and health impacts and other hazardous conditions of such releases.

BSR/NFPA 400-201x, Hazardous Materials Code (revision of ANSI/NFPA 400-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

BSR/NFPA 405-201x, Standard for the Recurring Proficiency of Airport Fire Fighters (revision of ANSI/NFPA 405-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains the required performance criteria by which an authority having jurisdiction over aircraft rescue and fire fighting (ARFF) maintains proficiency and effective ARFF at airports.

BSR/NFPA 408-201x, Standard for Aircraft Hand Portable Fire Extinguishers (revision of ANSI/NFPA 408-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies requirements for the type, capacity, rating, number, location, installation, and maintenance of aircraft hand portable fire extinguishers to be provided for the use of flight crew members or other occupants of an aircraft for the control of incipient fires in the areas of aircraft that are accessible during flight. This standard also includes requirements for training flight crew members in the use of these extinguishers.

BSR/NFPA 409-201x, Standard on Aircraft Hangars (revision of ANSI/NFPA 409-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains the minimum requirements for the proper construction of aircraft hangars and protection of aircraft hangars from fire. This standard applies only to buildings or structures used for aircraft storage, maintenance, or related activities. Other uses within an aircraft hangar shall be protected in accordance with other applicable NFPA Standards.

BSR/NFPA 410-201x, Standard on Aircraft Maintenance (revision of ANSI/NFPA 410-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

The scope of this standard is as follows: (1) This standard covers the minimum requirements for fire safety to be followed during aircraft maintenance and does not include the health and safety requirements for personnel involved in aircraft maintenance.

BSR/NFPA 415-201x, Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways (revision of ANSI/NFPA 415-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies the minimum fire protection requirements for the construction and protection of airport terminal buildings. It specifies the minimum requirements for the design and maintenance of the drainage system of an aircraft fueling ramp to control the flow of fuel that can be spilled on a ramp and to minimize the resulting possible danger.

BSR/NFPA 422-201x, Guide for Aircraft Accident/Incident Response Assessment (revision of ANSI/NFPA 422-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This guide provides a framework for the collection of data that provide information on the effectiveness of aircraft accident/incident emergency response services.

BSR/NFPA 423-201x, Standard for Construction and Protection of Aircraft Engine Test Facilities (revision of ANSI/NFPA 423-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard establishes the minimum fire safety practices regarding location, construction, services, utilities, fire protection, operation, and maintenance of aircraft engine test facilities. These facilities include test cells and test stands. This standard does not apply to engines and engine accessories or to engine test facilities where fuels other than hydrocarbon fuels are used.

BSR/NFPA 472-201x, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents (revision of ANSI/NFPA 472-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall identify the minimum levels of competence required by responders to emergencies involving hazardous materials/weapons of mass destruction (WMD). This standard shall apply to any individual or member of any organization who responds to hazardous materials/WMD incidents.

BSR/NFPA 473-201x, Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents (revision of ANSI/NFPA 473-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard identifies the levels of competence required of emergency medical services (EMS) personnel who respond to incidents involving hazardous materials or weapons of mass destruction (WMD). It specifically covers the requirements for basic life support and advanced life support personnel in the pre-hospital setting.

BSR/NFPA 556-201x, Guide on Methods for Evaluating Fire Hazard to Occupants of Passenger Road Vehicles (revision of ANSI/NFPA 556-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This guide addresses issues associated with the development of hazardous conditions from fire involving passenger road vehicles and the time available for safe egress or rescue. This document provides guidance toward a systematic approach of the determination of the relationship between the properties of passenger road vehicles, including the materials, components and systems, and the development of hazardous conditions in the vehicle.

BSR/NFPA 557-201x, Standard for Determination of Fire Loads for Use in Structural Fire Protection Design (revision of ANSI/NFPA 557-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

The scope of this standard is the determination of the fire load and fire load density to be used as the basis for the evaluation and design of the structural fire performance of a building. The determination of a design-basis fire is outside the scope of this standard. This document is not intended to address facilities for storage of hazardous materials.

BSR/NFPA 600-201x, Standard on Industrial Fire Brigades (revision of ANSI/NFPA 600-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

A major concern of industrial fire protection professionals is the protection of employees and property from the threat of fire in the workplace. In 1980, the Occupational Safety and Health Administration (OSHA) defined its requirements for industrial fire brigades. These requirements apply to industrial fire brigades once corporate or local management, in the role as an authority having jurisdiction, has determined that they want an industrial fire brigade at a facility.

BSR/NFPA 601-201x, Standard for Security Services in Fire Loss Prevention (revision of ANSI/NFPA 601-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall apply to the selection, requirements, duties, and training of security personnel who will perform fire loss prevention duties. It shall cover the following three categories of security services: (1) Protection of the property, including times when management is not present; (2) Access and egress control into and within the confines of the protected property; and (3) Carrying out procedures for the orderly conduct of various operations at the property.

BSR/NFPA 652-201x, Standard on Combustible Dusts (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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 701-201x, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films (revision of ANSI/NFPA 701-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

A small-scale test method appeared in NFPA 701 until the 1989 edition. It was eliminated from the test method because it has been shown that materials that "pass" the test do not necessarily exhibit a fire performance that is acceptable. The test was not reproducible for many types of fabrics and could not predict actual full-scale performance.

BSR/NFPA 804-201x, Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants (revision of ANSI/NFPA 804-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard applies only to advanced light-water reactor electric-generating plants and provides minimum fire protection requirements to ensure safe shutdown of the reactor, minimize the release of radioactive materials to the environment, provide safety to life of on-site personnel, limit property damage, and protect continuity of plant operation. The fire protection is based on the principle of defense-in-depth.

BSR/NFPA 805-201x, Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants (revision of ANSI/NFPA 805-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies the minimum fire protection requirements for existing light-water nuclear power plants during all phases of plant operation, including shutdown, degraded conditions, and decommissioning.

BSR/NFPA 806-201x, Performance-Based Standard for Fire Protection for Advanced Nuclear Reactor Electric Generating Plants Change Process (revision of ANSI/NFPA 806-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard provides minimum requirements for a risk-informed, performance-based change process for the fire-protection program for advanced nuclear-reactor electric-generating plants during construction and all phases of plant operation, including shutdown, degraded conditions, and decommissioning.

BSR/NFPA 820-201x, Standard for Fire Protection in Wastewater Treatment and Collection Facilities (revision of ANSI/NFPA 820-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall establish minimum requirements for protection against fire and explosion hazards in wastewater treatment plants and associated collection systems, including the hazard classification of specific areas and processes.

BSR/NFPA 850-201x, Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations (revision of ANSI/NFPA 850-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

BSR/NFPA 851-201x, Recommended Practice for Fire Protection for Hydroelectric Generating Plants (revision of ANSI/NFPA 851-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This document provides recommendations (not requirements) for fire prevention and fire protection for hydroelectric generating plants. The term "hydroelectric generating plant" also can be referred to as "station," "project," "unit(s)," "facility," or "site."

BSR/NFPA 950-201x, Standard for Data Development and Exchange for the Fire Service (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard is designed to standardize data for operable information sharing in support of the all-hazards response and to describe a digital information structure and associated requirements and workflows common to fire and emergency services delivery and management for emergency response and administrative use.

BSR/NFPA 1003-201x, Standard for Airport Fire Fighter Professional Qualifications (revision of ANSI/NFPA 1003-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

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

BSR/NFPA 1035-201x, Standard for Professional Qualifications for Fire and Life Safety Educator, Public Information Officer, and Juvenile Firesetter Intervention Specialist (revision of ANSI/NFPA 1035-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard identifies the levels of professional performance required for fire and life safety educators, public information officers (PIOs), and juvenile firesetter intervention specialists. This standard specifically identifies the job performance requirements (JPRs) for a fire and life safety educator, a PIO, and a JFIS.

BSR/NFPA 1061-2006, Standard for Professional Qualifications for Public Safety Telecommunicator (revision of ANSI/NFPA 1061-2006)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard identifies the minimum job performance requirements for public safety telecommunicators.

BSR/NFPA 1071-201x, Standard for Emergency Vehicle Technician Professional Qualifications (revision of ANSI/NFPA 1071-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall identify and define the minimum job performance requirements (JPRs) for a person to be considered qualified as an emergency vehicle technician (EVT).

BSR/NFPA 1126-201x, Standard for the Use of Pyrotechnics before a Proximate Audience (revision of ANSI/NFPA 1126-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall provide requirements for the protection of property, operators, performers, support personnel, and the viewing audiences where pyrotechnic effects are used indoors or outdoors with a proximate audience.

BSR/NFPA 1145-201x, Guide for the Use of Class A Foams in Manual Structural Fire Fighting (revision of ANSI/NFPA 1145-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This document presents information for agencies planning to use Class A foam for structural fire fighting and protection. It presents information on foam properties and characteristics, proportioning and discharge hardware, application techniques, and safety considerations. This document describes the use and application of Class A foams that meet the requirements of NFPA 1150, Standard on Foam Chemicals for Fires in Class A Fuels.

BSR/NFPA 1150-201x, Standard on Foam Chemicals for Fires in Class A Fuels (revision of ANSI/NFPA 1150-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies requirements for Class A foam and the chemicals used to produce Class A foam that is used to control, suppress, or prevent fires in Class A fuels. Class A foam solutions are generally used at concentrations in the range of 0.1 percent to 1.0 percent, and testing over this range of concentrations is required by this standard. However, situations can occur when either lower or higher concentration solutions would be more effective.

BSR/NFPA 1201-201x, Standard for Providing Fire and Emergency Services to the Public (revision of ANSI/NFPA 1201-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains requirements on the structure and operations of fire emergency service organizations (FESOs). Fire and emergency service organizations provide a myriad of services to the community.

BSR/NFPA 1221-201x, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems (revision of ANSI/NFPA 1221-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall cover the installation, performance, operation, and maintenance of public emergency services communications systems and facilities. This standard shall not be used as a design specification manual or an instruction manual.

BSR/NFPA 1250-201x, Recommended Practice in Fire and Emergency Service Organization Risk Management (revision of ANSI/NFPA 1250-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This recommended practice establishes minimum criteria to develop, implement, or evaluate a fire and emergency service organization (FESO) risk management program for effective risk identification, control, and financing.

BSR/NFPA 1407-201x, Standard for Training Fire Service Rapid Intervention Crews (revision of ANSI/NFPA 1407-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

BSR/NFPA 1408-201x, Standard on Thermal Imaging Training (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall contain minimum requirements for training fire service personnel to utilize fire service thermal imagers (TI).

BSR/NFPA 1410-201x, Standard on Training for Initial Emergency Scene Operations (revision of ANSI/NFPA 1410-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains the minimum requirements for evaluating training for initial fire suppression and rescue procedures used by fire department personnel engaged in emergency scene operations. It is recognized that most successful emergency-scene operations efforts involve a coordinated engine, ladder, and rescue company operation.

BSR/NFPA 1452-201x, Guide for Training Fire Service Personnel to Conduct Dwelling Fire Safety Surveys (revision of ANSI/NFPA 1452-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

The intent of this document is to provide fire-department training officers or other fire-service personnel with a guide for the establishment of a community fire-safety program for dwellings. To be effective and to adequately deal with local fire problems, the solution to a particular fire-safety problem should be developed locally. This document is intended to be a basic guide to possible elements for inclusion in a locally developed program.

BSR/NFPA 1581-201x, Standard on Fire Department Infection Control Program (revision of ANSI/NFPA 1581-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains minimum requirements for a fire department infection control program.

BSR/NFPA 1583-201x, Standard on Health-Related Fitness Programs for Fire Department Members (revision of ANSI/NFPA 1583-2007)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard establishes the minimum requirements for the development, implementation, and management of a health-related fitness program (HRFP) for members of the fire department involved in emergency operations. Although this standard is intended primarily for members involved in emergency operations, fire departments are encouraged to apply the components of the health-related fitness program to all employees.

BSR/NFPA 1584-201x, Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises (revision of ANSI/NFPA 1584-2008)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard establishes the minimum criteria for developing and implementing a rehabilitation process for fire department members at incident scene operations and training exercises.

BSR/NFPA 1620-201x, Standard for Pre-Incident Planning (revision of ANSI/NFPA 1620-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This document provides criteria for developing pre-incident plans for use by personnel responding to emergencies. Not every portion of this standard is applicable to the development of all pre-incident plans. This document is not intended for pre-incident planning related to construction, alteration, and demolition.

BSR/NFPA 1730-201x, Standard on Organization and Deployment of Code Enforcement, Plan Review, Fire Investigation, and Public Education Operations to the Public (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains minimum requirements relating to the organization and deployment of code enforcement, plan review, fire investigation, and public education operations to the public.

BSR/NFPA 1906-201x, Standard for Wildland Fire Apparatus (revision of ANSI/NFPA 1906-2011)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall define the minimum requirements for the design, performance, and testing of new automotive fire apparatus that are designed primarily to support wildland fire-suppression operations. This standard is designed to cover new automotive fire apparatus primarily used to fight wildland fires at both on-road and off-road locations. To a limited degree, these apparatus can be used to protect exposures or fight structure fires from the exterior.

BSR/NFPA 1917-201x, Standard for Automotive Ambulances (revision of ANSI/NFPA 1917-2013)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard defines the requirements for new automotive ambulances designed to be used under emergency conditions to provide medical treatment and transportation of sick or injured people to appropriate medical facilities.

BSR/NFPA 1931-201x, Standard for Manufacturer's Design of Fire Department Ground Ladders (revision of ANSI/NFPA 1931-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies the requirements for the design of fire-department ground ladders and for the design verification tests that are to be conducted by the ground-ladder manufacturer. Ground ladders used in the fire service must be constructed to rigid standards to ensure that the ladders are of the highest quality.

BSR/NFPA 1932-201x, Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders (revision of ANSI/NFPA 1932-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard specifies requirements for the use, maintenance, inspection, and service testing of fire-department ground ladders. Ground ladders used in the fire service must be constructed to rigid standards to ensure that the ladders are of the highest quality. These ladders often provide the only means of fire-fighter entry into a building or portions of a building and could be the only means of egress for victims trapped by a fire within a building.

BSR/NFPA 1936-201x, Standard on Powered Rescue Tools (revision of ANSI/NFPA 1936-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall specify the minimum requirements for the design, performance, testing, and product conformance verification of powered rescue tools and components. This standard shall specify the requirements for spreader, ram, cutter, and combination powered rescue tools. This standard shall also specify the requirements for cable assemblies, hose assemblies, and power unit components for powered rescue tools.

BSR/NFPA 1952-201x, Standard on Surface Water Operations Protective Clothing and Equipment (revision of ANSI/NFPA 1952-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

Some performance criteria in this standard were based on the U.S. Fire Administration Study, "Protective Clothing and Equipment Needs of Emergency Responders for Urban Search and Rescue Missions." This report documents the protective clothing and equipment needs for emergency responders engaged in surface water activities. Input was obtained from an emergency responder user requirements committee and resulted in proposed criteria based on a needs and risk analysis.

BSR/NFPA 1953-201x, Standard on Protective Ensembles for Contaminated Water Diving (new standard)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard shall specify the minimum design, performance, testing, and certification requirements for protective clothing and equipment items, including dry suit, dry-suit gloves, and dry-suit footwear designed to provide limited protection from physical, environmental and certain chemical and biological hazards that are listed herein for emergency services personnel during contaminated water dive operations.

BSR/NFPA 2001-201x, Standard on Clean Agent Fire Extinguishing Systems (revision of ANSI/NFPA 2001-2012)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains minimum requirements for total flooding and local application clean-agent fire-extinguishing systems. It does not cover fire-extinguishing systems that use carbon dioxide or water as the primary extinguishing media, which are addressed by other NFPA documents.

BSR/NFPA 2010-201x, Standard for Fixed Aerosol Fire-Extinguishing Systems (revision of ANSI/NFPA 2010-2010)

Stakeholders: Manufacturers, users, installers/maintainers, Labor, enforcing authority, insurance, consumers, special experts.

Project Need: Public interest and need.

This standard contains the requirements for the design, installation, operation, testing, and maintenance of condensed and dispersed aerosol fire-extinguishing systems for total flooding applications. This standard also covers performance requirements and methods of testing for condensed aerosol systems, dispersed aerosol systems, and associated components.

#### PLASA (PLASA North America)

**Office:** 630 Ninth Avenue, Suite 609  
New York, NY 10036-3748

**Contact:** *Karl Ruling*

**Fax:** (212) 244-1502

**E-mail:** karl.ruling@plasa.org

BSR/E1.48-201x, A Recommended Luminosity Function for Stage and Studio Luminaire Photometry (new standard)

Stakeholders: Stage and studio luminaire manufacturers, photometer manufacturers, luminaire testing laboratories, theatrical lighting designers, specifiers and vendors of stage and studio luminaires.

Project Need: The luminosity function for most commonly used light meters is based on a decades-old, obsolete CIE curve that is inaccurate at short wavelengths. This results in readings that are significantly lower than they should be for any luminaire in which a large portion of the output is at short wavelengths. The readings can be as low as 50% of what they should be if the photometer readings are to match the response of the human eye.

The standard specifies an energy-based luminosity function  $V^*$  ( $\lambda$ ) based on recent research for use when measuring the lumen output for any stage or studio luminaire in which it is known or believed that 20% or more of the output power is at wavelengths shorter than 500 nm.

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

**Office:** 333 Pfingsten Road  
Northbrook, IL 60062

**Contact:** *Beth Northcott*

**Fax:** (847) 664-3198

**E-mail:** Elizabeth.Northcott@ul.com

\* BSR/UL 62841-4-xd-201x, Standard for Safety for Hand-Held Motor-Operated Electrical, Transportable and Garden Tools - Safety - Part 4-xd: Particular Requirements for Lawn Scarifiers and Aerators (national adoption with modifications of IEC 62841-4-xd)

Stakeholders: Consumers, manufacturers of electric motor-operated hand-held, transportable, and garden tools: lawn scarifiers and aerators; lawn scarifiers and aerators

Project Need: To obtain national recognition of a standard covering electric motor-operated hand-held, transportable, and garden tools - lawn scarifiers and aerators.

This International Standard deals with the safety of electric motor-operated or magnetically driven: hand-held tools (part 2); transportable tools (part 3); and lawn and garden machinery (part 4). This standard applies to lawn scarifiers and aerators.

- \* BSR/UL 62841-4-xe-201x, Standard for Safety for Electric Hand-Held Motor-Operated, Transportable and Garden Tools - Safety - Part 4-xe: Particular Requirements for Shredders and Chippers (national adoption with modifications of IEC 62841-4-xe)

Stakeholders: Consumers, manufacturers of electric motor-operated hand-held, transportable, and garden tools: shredders and chippers.

Project Need: To obtain national recognition of a standard covering electric motor-operated hand-held, transportable, and garden tools - shredders and chippers.

This International Standard deals with the safety of electric motor-operated or magnetically driven: hand-held tools (part 2); transportable tools (part 3); and lawn and garden machinery (part 4). This standard applies to shredders and chippers.

- \* BSR/UL 62841-4-xf-201x, Standard for Safety for Electric Hand-Held Motor-Operated, Transportable and Garden Tools - Safety - Part 4-xf: Particular Requirements for Scissors Type Grass Shears (national adoption with modifications of IEC 62841-4-xf)

Stakeholders: Consumers, manufacturers of electric motor-operated hand-held, transportable, and garden tools: scissors-type grass shears.

Project Need: To obtain national recognition of a standard covering electric motor-operated hand-held, transportable, and garden tools - scissors-type grass shears.

This International Standard deals with the safety of electric motor-operated or magnetically driven: hand-held tools (part 2); transportable tools (part 3); and lawn and garden machinery (part 4). This standard applies to scissors type grass shears.

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

**Office:** PO Box 19658  
Fountain Hills, AZ 85269

**Contact:** John Rynearson

**Fax:** (480) 837-7486

**E-mail:** techdir@vita.com

- BSR/VITA 51.1-201x, Reliability Prediction MIL-HDBK 217 Subsidiary Specification (revision of ANSI/VITA 51.1-2008)

Stakeholders: Manufacturers, suppliers, and users of modular embedded computers.

Project Need: Updates the standard to reflect current practice.

This specification provides standard defaults and methods to adjust the models in MIL-HDBK-217F Notice 2. This is not a revision of MIL-HDBK-217F Notice 2, but a standardization of the inputs to the MIL-HDBK-217F Notice 2 calculations to give more consistent results.

# American National Standards Maintained Under Continuous Maintenance

The ANSI Essential Requirements: Due Process Requirements for American National Standards provide 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)
- AAMVA (American Association of Motor Vehicle Administrators)
- AGA (American Gas Association)
- AGRSS, Inc. (Automotive Glass Replacement Safety Standards Committee, Inc.)
- 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)
- GEIA (Greenguard Environmental Institute)
- HL7 (Health Level Seven)
- MHI (ASC MH10) (Material Handling Industry)
- NAHBRC (NAHB Research Center, Inc.)
- NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)
- NCPDP (National Council for Prescription Drug Programs)
- NISO (National Information Standards Organization)
- NSF (NSF International)
- TIA (Telecommunications Industry Association)
- UL (Underwriters Laboratories, Inc.)

To obtain additional information with regard to these standards, such as contact information at the ANSI accredited standards developer, please visit ANSI Online at [www.ansi.org](http://www.ansi.org), select Internet Resources, click on "Standards Information," and see "American National Standards Maintained Under Continuous Maintenance". This information is also available directly at [www.ansi.org/publicreview](http://www.ansi.org/publicreview).

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



## ANSI-Accredited Standards Developers Contact Information

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

### ADA (Organization)

American Dental Association  
211 E. Chicago Ave  
Chicago, IL 60611  
Phone: (312) 440-2533  
Fax: (312) 440-2529  
Web: [www.ada.org](http://www.ada.org)

### AIAA

American Institute of Aeronautics and Astronautics  
1801 Alexander Bell Drive, Suite 500  
Reston, VA 20191-4344  
Phone: 703-264-7546  
Web: [www.aiaa.org](http://www.aiaa.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](http://www.apawood.org)

### APSP

Association of Pool and Spa Professionals  
2111 Eisenhower Avenue  
Alexandria, VA 22314  
Phone: (703) 838-0083 x150  
Fax: (703) 549-0493  
Web: [www.apsp.org](http://www.apsp.org)

### ASA (ASC S12)

Acoustical Society of America  
35 Pinelawn Road, Suite 114E  
Melville, NY 11747  
Phone: (631) 390-0215  
Fax: (631) 390-0217  
Web: [acousticalsociety.org](http://acousticalsociety.org)

### ASABE

American Society of Agricultural and Biological Engineers  
2950 Niles Road  
St Joseph, MI 49085  
Phone: (269) 932-7015  
Fax: (269) 429-3852  
Web: [www.asabe.org](http://www.asabe.org)

### ASCE

American Society of Civil Engineers  
1801 Alexander Bell Dr  
Reston, VA 20191  
Phone: 703-295-6176  
Web: [www.asce.org](http://www.asce.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](http://www.ashrae.org)

### ASME

American Society of Mechanical Engineers  
3 Park Avenue, 20th Floor (20N2)  
New York, NY 10016  
Phone: (212) 591-8521  
Fax: (212) 591-8501  
Web: [www.asme.org](http://www.asme.org)

### ASPE

American Society of Plumbing Engineers  
2980 S. River Road  
Des Plaines, IL 60018  
Phone: (847) 296-0002  
Fax: (847) 296-2963  
Web: [www.aspe.org](http://www.aspe.org)

### ASSE (Safety)

American Society of Safety Engineers  
1800 East Oakton Street  
Des Plaines, IL 60018-2187  
Phone: (847) 768-3411  
Fax: (847) 296-9221  
Web: [www.asse.org](http://www.asse.org)

### ASTM

ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
Phone: (610) 832-9743  
Fax: (610) 834-3655  
Web: [www.astm.org](http://www.astm.org)

### ATIS

Alliance for Telecommunications Industry Solutions  
1200 G Street, NW  
Suite 500  
Washington, DC 20005  
Phone: (202) 434-8841  
Fax: (202) 347-7125  
Web: [www.atis.org](http://www.atis.org)

### AWWA

American Water Works Association  
6666 W. Quincy Ave.  
Denver, CO 80235  
Phone: (303) 347-6178  
Fax: (303) 795-6303  
Web: [www.awwa.org](http://www.awwa.org)

### B11

B11 Standards, Inc.  
PO Box 690905  
Houston, TX 77269  
Phone: (832) 446-6999

### BHMA

Builders Hardware Manufacturers Association  
355 Lexington Avenue, 15th Floor  
New York, NY 10017  
Phone: (212) 297-2127  
Fax: (212) 370-9047  
Web: [www.buildershardware.com/](http://www.buildershardware.com/)

### CEA

Consumer Electronics Association  
1919 S. Eads St.  
Arlington, VA 22202  
Phone: (703) 907-7697  
Fax: (703) 907-4192  
Web: [www.ce.org](http://www.ce.org)

### CSA

CSA Group  
8501 East Pleasant Valley Rd.  
Cleveland, OH 44131  
Phone: (216) 524-4990  
Fax: (216) 520-8979  
Web: [www.csa-america.org](http://www.csa-america.org)

### ECA

Electronic Components Association  
2214 Rock Hill Road, Suite 170  
Herndon, VA 20170  
Phone: (571) 323-0294  
Fax: (571) 323-0245  
Web: [www.eciaonline.org](http://www.eciaonline.org)

### FM

FM Approvals  
1151 Boston-Providence Turnpike  
Norwood, MA 2062  
Phone: (781) 255-4813  
Fax: (781) 762-9375  
Web: [www.fmglobal.com](http://www.fmglobal.com)

### IEEE

Institute of Electrical and Electronics Engineers (IEEE)  
445 Hoes Lane  
Piscataway, NJ 08854  
Phone: (732) 562-3854  
Fax: (732) 796-6966  
Web: [www.ieee.org](http://www.ieee.org)

### ISA (Organization)

ISA-The Instrumentation, Systems, and Automation Society  
67 Alexander Drive  
Research Triangle Park, NC 27709  
Phone: (919) 990-9228  
Fax: (919) 549-8288  
Web: [www.isa.org](http://www.isa.org)

### ITI (INCITS)

InterNational Committee for Information Technology Standards  
1101 K Street NW, Suite 610  
Washington, DC 20005  
Phone: (202) 626-5743  
Fax: (202) 638-4922  
Web: [www.incits.org](http://www.incits.org)

### MHI

Material Handling Industry  
8720 Red Oak Blvd., Suite 201  
Charlotte, NC 28217-3992  
Phone: (704) 676-1190  
Fax: (704) 676-1199  
Web: [www.mhia.org](http://www.mhia.org)

### NAAMM

National Association of Architectural Metal Manufacturers  
800 Roosevelt Road, Building C  
Suite 312  
Glen Ellyn, IL 60137  
Phone: (757) 489-0787  
Fax: (757) 489-0788  
Web: [www.naamm.org](http://www.naamm.org)

### NEMA (ASC C8)

National Electrical Manufacturers Association  
1300 North 17th Street, Suite 1752  
Rosslyn, VA 22209  
Phone: (703) 841-3290  
Fax: (703) 841-3398  
Web: [www.nema.org](http://www.nema.org)

**NEMA (Canvass)**

National Electrical Manufacturers  
Association  
1300 North 17th Street, Suite 1752  
Rosslyn, VA 22209  
Phone: (703) 841-3285  
Fax: (703) 841-3385  
Web: www.nema.org

**NFPA**

National Fire Protection Association  
One Batterymarch Park  
Quincy, MA 02169-7471  
Phone: (617) 770-3000  
Fax: (617) 770-3500  
Web: www.nfpa.org

**NSF**

NSF International  
789 N. Dixboro Road  
Ann Arbor, MI 48105  
Phone: (734) 769-5159  
Fax: (734) 827-6176  
Web: www.nsf.org

**PLASA**

PLASA North America  
630 Ninth Avenue, Suite 609  
New York, NY 10036-3748  
Phone: (212) 244-1505  
Fax: (212) 244-1502  
Web: www.plasa.org

**SCTE**

Society of Cable Telecommunications  
Engineers  
140 Philips Rd.  
Exton, PA 19341  
Phone: (610) 594-7308  
Fax: (610) 363-7133  
Web: www.scte.org

**SHRM**

Society for Human Resource  
Management  
1800 Duke Street  
Alexandria, VA 22315  
Phone: (703) 535-6047  
Fax: (703) 535-6432  
Web: www.shrm.org

**TechAmerica**

TechAmerica  
601 Pennsylvania Ave. NW Suite 600,  
North Building  
Suite 1100  
Washington, DC 20004  
Phone: (703) 284-5355  
Fax: (703) 525-2279  
Web: www.techamerica.org

**TOY-TIA**

Toy Industry Association  
575 7th St NW, 3rd Floor  
Washington, DC 20004  
Phone: (202) 344-4453  
Web: www.toyassociation.org

**UL**

Underwriters Laboratories, Inc.  
333 Pfingsten Road  
Northbrook, IL 60062  
Phone: (847) 664-2881  
Fax: (847) 664-2881  
Web: www.ul.com/

**VC (ASC Z80)**

The Vision Council  
225 Reinekers Lane, Suite 700  
Alexandria, VA 22314  
Phone: (703) 740-1094  
Fax: (703) 548-4580  
Web: www.thevisioncouncil.org

**VITA**

VMEbus International Trade  
Association (VITA)  
PO Box 19658  
Fountain Hills, AZ 85269  
Phone: (480) 837-7486  
Fax: (480) 837-7486  
Web: www.vita.com/

**WCMA**

Window Covering Manufacturers  
Association  
355 Lexington Avenue  
New York, NY 10017  
Phone: (212) 297-2108  
Fax: (212) 370-9047



# ISO Draft International Standards

This section lists proposed standards that the International Organization for Standardization (ISO) is 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 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 Karen Hughes, at ANSI's New York offices (isot@ansi.org). The final date for offering comments is listed after each draft.

## Ordering Instructions

**ISO Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an ISO 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.**

## **APPLICATIONS OF STATISTICAL METHODS (TC 69)**

ISO/DIS 13528, Statistical methods for use in proficiency testing by interlaboratory comparisons - 2/21/2013, \$146.00

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

ISO/DIS 12614-1, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 1: General requirements and definitions - 2/15/2013

ISO/DIS 12614-2, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 2: Performance and general test methods - 2/15/2013

ISO/DIS 12614-3, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 3: Check valve - 2/15/2013

ISO/DIS 12614-4, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 4: Manual valve - 2/15/2013

ISO/DIS 12614-5, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 5: Tank pressure gauge - 2/15/2013

ISO/DIS 12614-6, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 6: Overpressure regulator - 2/15/2013

ISO/DIS 12614-7, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 7: Pressure relief valve - 2/15/2013

ISO/DIS 12614-8, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 8: Excess flow valve - 2/15/2013

ISO/DIS 12614-9, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 9: Gas-tight housing and ventilation hose - 2/15/2013

ISO/DIS 12614-10, Road vehicles - Liquefied natural gas (LNG) fuel system component - Part 10: Rigid fuel line in stainless steel - 2/15/2013

ISO/DIS 12614-11, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 11: Fittings - 2/15/2013

ISO/DIS 12614-12, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 12: Rigid fuel line in material other than stainless steel - 2/15/2013

ISO/DIS 12614-13, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 13: Pressure control regulator - 2/15/2013

ISO/DIS 12614-14, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 14: Differential pressure fuel content gauge - 2/15/2013

ISO/DIS 12614-15, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 15: Capacitance fuel content gauge - 2/15/2013

ISO/DIS 12614-16, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 16: Heat exchanger - vaporizer - 2/15/2013

ISO/DIS 12614-17, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 17: Natural gas detector - 2/15/2013

ISO/DIS 12614-18, Road vehicles - Liquefied natural gas (LNG) fuel system components - Part 18: Gas temperature sensor - 2/15/2013

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

ISO/IEC DIS 27036-2, Information technology - Security techniques - Information security for supplier relationships - Part 2: Common requirements - 2/16/2013, \$112.00

ISO/IEC DIS 27036-3, Information technology - Security techniques - Information security for supplier relationships - Part 3: Guidelines for ICT supply chain security - 2/21/2013, \$112.00



# Newly Published ISO & IEC Standards

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

## ISO Standards

### ISO/IEC JTC 1 Technical Reports

[ISO/IEC TR 20002:2012](#), Information technology - Telecommunications and information exchange between systems - Managed P2P: Framework, \$141.00

[ISO/IEC TR 27015:2012](#), Information technology - Security techniques - Information security management guidelines for financial services, \$92.00

[ISO/IEC TR 15443-1:2012](#), Information technology - Security techniques - Security assurance framework - Part 1: Introduction and concepts, \$157.00

### FINE CERAMICS (TC 206)

[ISO 14604:2012](#), Fine ceramics (advanced ceramics, advanced technical ceramics) - Methods of test for ceramic coatings - Determination of fracture strain, \$73.00

### GEOGRAPHIC INFORMATION/GEOMATICS (TC 211)

[ISO 19152:2012](#), Geographic information - Land Administration Domain Model (LADM), \$206.00

### PACKAGING (TC 122)

[ISO 13127/Cor1:2012](#), Packaging - Child resistant packaging - Mechanical test methods for reclosable child resistant packaging systems - Corrigendum, FREE

### ROAD VEHICLES (TC 22)

[ISO 7641:2012](#), Road vehicles - Trailers up to 3,5 t - Calculation of the mechanical strength of steel drawbars, \$80.00

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

[ISO 16438:2012](#), Agricultural irrigation equipment - Thermoplastic collapsible hoses for irrigation - Specifications and test methods, \$49.00

### ISO Technical Specifications

[ISO/IEC TS 29113:2012](#), Information technology - Further interoperability of Fortran with C, \$157.00

### REFRIGERATION (TC 86)

[ISO/TS 16491:2012](#), Guidelines for the evaluation of uncertainty of measurement in air conditioner and heat pump cooling and heating capacity tests, \$116.00

### ISO/IEC Guides

#### OTHER

[ISO/IEC Guide 98-4:2012](#), Uncertainty of measurement - Part 4: Role of measurement uncertainty in conformity assessment, \$149.00

### ISO/IEC JTC 1, Information Technology

[ISO/IEC 9995-2/Amd1:2012](#), Information technology - Keyboard layouts for text and office systems - Part 2: Alphanumeric section - Amendment 1: Numeric keypad emulation, \$16.00

## IEC Standards

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

[IEC 62141 Ed. 1.0 b:2005](#), Helican-scan digital video cassette recording format using 12,65 mm magnetic tape and incorporating MPEG-4 compression - Type D-16 format, \$260.00

[IEC 62345 Ed. 1.0 b:2005](#), ID format for 50 mm magneto-optical disc system, \$265.00

[IEC 61966-5 Ed. 2.0 b:2008](#), Multimedia systems and equipment - Colour measurement and management - Part 5: Equipment using plasma display panels, \$143.00

[IEC 62071-1 Ed. 1.0 b:2005](#), Helical-scan compressed digital video cassette system using 6,35 mm magnetic tape - Format D-7 - Part 1: VTR specifications, \$260.00

[IEC 62330-2 Ed. 1.0 b:2003](#), Helical-scan digital video cassette recording system using 12,65 mm (0,5 in) magnetic tape - Format HD-D5 - Part 2: Compression format, \$179.00

[IEC 62481-3 Ed. 1.0 b:2010](#), Digital living network alliance (DLNA) home networked device interoperability guidelines - Part 3: Link protection, \$235.00

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

[IEC 60079-0 Ed. 6.0 b cor. 1:2012](#), Corrigendum 1 - Explosive atmospheres - Part 0: Equipment - General requirements, \$0.00

**ELECTRICAL EQUIPMENT IN MEDICAL PRACTICE (TC 62)**

[IEC 60601-1 Ed. 3.1 en cor.1:2012](#), Corrigendum 1 - Medical electrical equipment - Part 1: General requirements for basic safety and essential performance, \$0.00

**ELECTROSTATICS (TC 101)**

[IEC 61340-4-10 Ed. 1.0 b:2012](#), Electrostatics - Part 4-10: Standard test methods for specific applications - Two-point resistance measurement, \$56.00

**FIBRE OPTICS (TC 86)**

[IEC 61753-022-2 Ed. 2.0 b:2012](#), Fibre optic interconnecting devices and passive components - Performance standard - Part 022-2: Fibre optic connectors terminated on multimode fibre for category C - Controlled environment, \$66.00

[IEC 61753-143-2 Ed. 1.0 b:2012](#), Fibre optic interconnecting devices and passive components - Performance standard - Part 143-2: Optical passive VIPA-based dispersion compensator of single-mode fibre transmission for category C - Controlled environment, \$97.00

**INDUSTRIAL ELECTROHEATING EQUIPMENT (TC 27)**

[IEC 60519-1 Ed. 4.0 b cor.1:2012](#), Corrigendum 1 - Safety in electroheating installations - Part 1: General requirements, \$0.00

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

[IEC 60335-2-2 Amd.1 Ed. 6.0 b:2012](#), Amendment 1 - Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances, \$21.00

[IEC 60335-2-2 Ed. 6.1 en:2012](#), Household and similar electrical appliances - Safety - Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances, \$230.00

[IEC 60335-2-4 Amd.1 Ed. 6.0 b:2012](#), Amendment 1 - Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors, \$21.00

[IEC 60335-2-4 Ed. 6.1 b:2012](#), Household and similar electrical appliances - Safety - Part 2-4: Particular requirements for spin extractors, \$148.00

[IEC 60335-2-9 Amd.1 Ed. 6.0 b:2012](#), Amendment 1 - Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances, \$56.00

[IEC 60335-2-9 Ed. 6.1 b:2012](#), Household and similar electrical appliances - Safety - Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances, \$306.00

[IEC 60335-2-27 Amd.1 Ed. 5.0 b:2012](#), Amendment 1 - Household and similar electrical appliances - Safety - Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation, \$46.00

[IEC 60335-2-27 Ed. 5.1 en:2012](#), Household and similar electrical appliances - Safety - Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation, \$326.00

**SAFETY OF MACHINERY - ELECTROTECHNICAL ASPECTS (TC 44)**

[IEC 62061 Amd.1 Ed. 1.0 b:2012](#), Amendment 1 - Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems, \$46.00

[IEC 62061 Ed. 1.1 b:2012](#), Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems, \$347.00

**SMALL POWER TRANSFORMERS AND REACTORS AND SPECIAL TRANSFORMERS AND REACTORS (TC 96)**

[IEC 61558-2-14 Ed. 1.0 b:2012](#), Safety of transformers, reactors, power supply units and combinations thereof - Part 2-14: Particular requirements and tests for variable transformers and power supply units incorporating variable transformers, \$117.00

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

[IEC 61730-2 Ed. 1.1 b:2012](#), Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing, \$286.00

**SWITCHGEAR AND CONTROLGEAR (TC 17)**

[IEC 61439-4 Ed. 1.0 b:2012](#), Low-voltage switchgear and controlgear assemblies - Part 4: Particular requirements for assemblies for construction sites (ACS), \$128.00

# Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4946.

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

## PUBLIC REVIEW

**Ehds 01 11 2001**

Public Review: November 30, 2012 to February 27, 2013

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

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

# Proposed Foreign Government Regulations

## Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations may be interested in proposed foreign technical regulations issued 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 report proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn, the Secretariat disseminates the information to all WTO Members. The purpose of this requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final.

The National Center for Standards and Certification Information (NCSCI) at the National Institute of Standards and Technology

(NIST), distributes these proposed foreign technical regulations to U.S. stakeholders via an online service, Notify U.S. Notify U.S. is an e-mail and Web service that allows interested U.S. parties to register, obtain notifications, and read full texts of regulations from countries and for industry sectors of interest to them. To register for Notify U.S., please go to Internet URL: <http://www.nist.gov/notifyus/> and click on "Subscribe".

NCSCI is the WTO TBT Inquiry Point for the U.S. and receives all notifications and full texts of regulations to disseminate to U.S. Industry. For further information, please contact: NCSCI, NIST, 100 Bureau Drive, Gaithersburg, MD 20899-2160; Telephone: (301) 975-4040; Fax: (301) 926-1559; E-mail: [ncsci@nist.gov](mailto:ncsci@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).

# Information Concerning

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## American National Standards

### 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 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 its oversight of programs of its 40+ Technical Committees. Additionally, the INCITS Executive Board exercises international leadership in its role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

The INCITS Executive Board seeks to broaden its membership base and is recruiting new participants in the following membership categories:

- special interest (user, academic, consortia)
- non-business (government and major/minor SDOs)

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, please contact Jennifer Garner at 202-626-5737 or [jgarner@itic.org](mailto:jgarner@itic.org). Visit [www.INCITS.org](http://www.INCITS.org) for more information regarding INCITS activities.

### Calls for Members

#### Society of Cable Telecommunications

##### ANSI Accredited Standards Developer

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

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

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

#### Announcement of decision to discontinue BSR/SHRM 02002 201X, Human Resource Indices for Investors

SHRM has decided to discontinue the above-referenced project effective 11/27/2012. Questions may be directed to Lee Webster at (703) 535-6047 or [lee.webster@shrm.org](mailto:lee.webster@shrm.org).

### NFPA Listings in PINS

Anyone interested in submitting Public Input on any of the NFPA standards listed in the PINS section of this issue of Standards Action may do so by accessing the document's specific information page on the NFPA website at [www.nfpa.org/doc#](http://www.nfpa.org/doc#) ([www.nfpa.org/101](http://www.nfpa.org/101)) or contacting Amy Beasley Cronin, NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471, by e-mail at [stds\\_admin@nfpa.org](mailto:stds_admin@nfpa.org).

## ANSI Accredited Standards Developers

### Approval of Reaccreditation

#### North American Security Products Organization (NASPO)

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the North American Security Products Organization (NASPO), an ANSI Organizational Member, has been approved under its recently revised operating procedures for documenting consensus on NASPO-sponsored American National Standards, effective November 27, 2012. For additional information, please contact: Graham D. Whitehead, Ph.D., Director of Auditing & Standards Development, North American Security Products Organization, 204 E Street NE, Washington, DC 20002; phone: 202.608.1322; e-mail: [gdw-mail@telus.net](mailto:gdw-mail@telus.net).

### Reaccreditation

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

##### Comment Deadline: December 31, 2012

The Technical Association of the Pulp and Paper Industry (TAPPI), an ANSI Organizational Member, has submitted revisions to its currently accredited operating procedures for documenting consensus on TAPPI-sponsored American National Standards, under which it was last reaccredited in 2010. As the revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: Mr. Charles Bohanan, Director of Standards & Awards, TAPPI, 15 Technology Parkway South, Norcross, GA 30092; phone: 770.209.7276; e-mail: [standards@tappi.org](mailto:standards@tappi.org). You may view/download a copy of the revisions during the public review period at the following URL:

<http://publicaa.ansi.org/sites/apdl/Documents/Forms/AllItems.aspx?RootFolder=%2fsites%2fapdl%2fDocuments%2fStandards%20Activities%2fPublic%20Review%20and%20Comments%2fANSI%20Accreditation%20Actions&View=%7b21C60355%2dAB17%2d4CD7%2dA090%2dBABEEC5D7C60%7d>. Please submit any public comments on the revised procedures to TAPPI by December 31, 2012, with a copy to the ExSC Recording Secretary in ANSI's New York Office (E-mail: [Jthompso@ANSI.org](mailto:Jthompso@ANSI.org)).

## ANSI-ASQ National Accreditation Board (ANAB)

ISO 13485 Medical Device Quality Management Systems

Notice of Accreditation

Certification Body

International Quality Certifications

The ANSI-ASQ National Accreditation Board is pleased to announce the following certification body has earned ANAB accreditation for ISO 13485 Medical Device Quality Management Systems:

### International Quality Certifications

Joselillo No. 6-A Despacho 908, Col. El Parque Naucalpan Edo. Mexico D.F. 53390

Contact: Fernando Adams Gallegos

Phone: 011 5255 5557 9629

E-mail: [iqcert@prodigy.net.mx](mailto:iqcert@prodigy.net.mx)

## ANSI Accreditation Program for Third Party Product Certification Agencies

Initial Accreditation

BM TRADA Certification North America, Inc.

Comment Deadline: December 31, 2012

Mr. Mario Vieira, General Manager  
BM TRADA Certification North America, Inc.  
2001 Route 46 E, Waterview Plaza, Suite 310  
Parsipanny, NJ 07054,  
Tel: 973-434-7517

E-mail: [mvieira@bmtradagroup.com](mailto:mvieira@bmtradagroup.com)

Web: [www.bmtrada-usa.com](http://www.bmtrada-usa.com)

On November 27, 2012, BM TRADA Certification North America, Inc. was approved for ANSI Initial Accreditation for the following scopes:

### Scopes:

- Requirements for the SFI 2010-2014 Program
- Section 3 SFI Chain of Custody Standard
- Section 4 Rules for Use of SFI On-Product Labels
- Section 9 Appendix 1 Audits of Multi-site Organizations (Normative)

Please send your comments by December 31, 2012 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293 9287 or e-mail: [rfigueir@ansi.org](mailto:rfigueir@ansi.org), or Nikki Jackson, Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036 Fax: 202-293 9287 or e-mail: [njackson@ansi.org](mailto:njackson@ansi.org).

## International Organization for Standardization (ISO)

Call for International (ISO) Secretariat

ISO/TC 69 – Applications of Statistical Methods

ANSI has been informed by AFNOR (France), the ISO delegated secretariat, that they wish to relinquish the role of the secretariat. ISO/TC 69 operates under the following scope:

- Standardization in the application of statistical methods, including generation, collection (planning and design), analysis, presentation and interpretation of data.

Information concerning the United States retaining the role of international secretariat may be obtained by contacting ANSI at [isot@ansi.org](mailto:isot@ansi.org).

Calls for US/TAG and US/TAG Administrator

ISO/PC 271 – Compliance Programs

The ISO Technical Management Board has created a new ISO Project Committee on Compliance programs (ISO/PC 271). The secretariat has been assigned to SA (Australia). The new project committee has the following scope:

- Standardization in the field of compliance programs

Organizations interested in serving as the US/TAG administrator or participating on the US/TAG should contact ANSI's ISO Team at [isot@ansi.org](mailto:isot@ansi.org).

ISO/PC 272 – Forensic Sciences

The ISO Technical Management Board has created a new ISO Project Committee on Forensic sciences (ISO/PC 272). The secretariat has been assigned to SA (Australia). The new project committee has the following scope:

- Standardization in the field of forensic sciences

Organizations interested in serving as the US/TAG administrator or participating on the US/TAG should contact ANSI's ISO Team at [isot@ansi.org](mailto:isot@ansi.org).

ISO/TC 274 – Light and Lighting

The ISO Technical Management Board has created a new ISO Technical Committee on Light and lighting (ISO/TC 274). The secretariat has been assigned to DIN (Germany). The new technical committee has the following scope:

- Standardization in the field of application of lighting in specific cases complementary to the work items of the International Commission on Illumination (CIE) and the coordination of drafts from the CIE, in accordance with the Council Resolution 19/1984 and Council Resolution 10/1989 concerning vision, photometry and colorimetry, involving natural and man-made radiation over the UV, the visible and the IR regions of the spectrum, and application subjects covering all usage of light, indoors and outdoors, energy efficiency, including environmental, non-visual biological and health effects.

Organizations interested in serving as the US/TAG administrator or participating on the US/TAG should contact ANSI's ISO Team at [isot@ansi.org](mailto:isot@ansi.org).



## New Work Items

### Research, Development and Innovation – Process Management

#### Committee Deadline: January 14, 2013

ABNT (Brazil) has proposed the attached new work item proposal to ISO on Research, Development and Innovation – Process Management, with the following scope statement:

This International Standard specifies requirements to a management system in the field of research, development and innovation (RD&I) aiming to provide to users the tools to establish, implement, maintain and improve, efficiently and consistently, their RD&I routines.

This International Standard provides guidance on the research and development activities, which constitutes the base for innovation, through inputs and consolidated technical parameters such as test methods, sampling criteria, safety requirements, among others.

Anyone wishing to review the new work item proposal can request a copy of the proposal by contacting ANSI's ISO Team via email: [isot@ansi.org](mailto:isot@ansi.org) with submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, January 4, 2013.

### Sustainable Purchasing

#### Committee Deadline: December 14, 2012

AFNOR (France) and ABNT (Brazil) have jointly proposed a new work item proposal to ISO on sustainable purchasing with the following scope statement:

The proposed International Standard is aimed at assisting organizations in integrating the economic constraints and the principles and issues of social responsibility as described in ISO 26000 within the purchasing process, independent of their activity or size.

This standard provides standardization of principles and guidelines not only for Procurement Units and Top Managers but also for all stakeholders dealing with purchasing processes both internally and externally (for instance: suppliers, contractors, procurement units, buyers, local authorities and society . . . )

Anyone wishing to review the new work item proposal can request a copy of the proposal by contacting ANSI's ISO Team via email: [isot@ansi.org](mailto:isot@ansi.org) with submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, December 14, 2012.

## U.S. Technical Advisory Group

### Meeting Notice

#### ISO TC20/SC14

The U.S. TAG for ISO TC20/SC14 will hold a telecom on Tuesday, December 11 at 1:00 EST. For further information, contact Amy Barrett, U.S. TAG Administrator at [amyb@aiaa.org](mailto:amyb@aiaa.org).

### Meeting Notice

#### ANSI ASC C29 Committee

The next meeting of the ANSI Accredited Standards Committee C29 – Insulators for Electric Power Lines will take place on January 17th, 2013. It is occurring during the IEEE Overhead Lines Conference being held at the Memphis Marriott Downtown, 250 North Main Street, Memphis, TN the week of January 13-17th, 2013. For more information, please contact Steve Griffith, ASC C29 Secretary at the National Electrical Manufacturers Association (NEMA) by phone (703) 841-3297 or by email [Steve.Griffith@nema.org](mailto:Steve.Griffith@nema.org).

## Information Concerning

### ANSI Accreditation Program for Greenhouse Gas Verification/Validation Bodies

#### Application for Accreditation

#### **GENIVAR INC.**

#### **Comment Deadline: December 31, 2012**

In accordance with the following ISO standards:

ISO 14065:2007, *Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*

#### **GENIVAR INC.**

1600 Boulevard  
René-Lévesque Ouest  
Montréal, QC H3H 1P9  
Canada

has submitted a formal application for accreditation by ANSI for the following sector groups:

*Verification of assertions related to GHG emission reductions & removals at the project level*

01. GHG emission reductions from fuel combustion
02. GHG emission reductions from industrial processes (non-combustion, chemical reaction, fugitive and other)
03. Land Use and Forestry
06. Waste Handling and Disposal

*Validation of assertions related to GHG emission reductions & removals at the project level*

01. GHG emission reductions from fuel combustion
02. GHG emission reductions from industrial processes (non-combustion, chemical reaction, fugitive and other)
03. Land Use and Forestry
06. Waste Handling and Disposal

*Verification of assertions related to GHG emission reductions & removals at the organizational level*

01. General
02. Manufacturing
03. Power Generation
04. Electric Power Transactions
05. Mining and Mineral Production
06. Metals Production
07. Chemical Production
08. Oil and Gas Extraction, Production and Refining, included Petrochemicals
09. Waste
10. Agriculture, Forestry and Other Land Use (AFOLU)

Please send your comments by December 31, 2012 to Ann Bowles, Director, Environmental Accreditation Programs, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293-9287 or e-mail: [abowles@ansi.org](mailto:abowles@ansi.org).

# Information Concerning

## International Organization for Standardization (ISO)

### New Work Item

### Anti-Bribery Management System – Requirements

#### Comment Deadline: December 14, 2012

BSI (UK) has proposed the attached new work item proposal to ISO on Anti-bribery management system – Requirements with the following scope statement:

The standard will specify a set of requirements to enable an organization to develop and implement a policy and objectives to ensure a robust set of anti-bribery measures are put in place. This Standard will address bribery risks in relation to the organization's activities, which could include the following:

- (a) bribery in public, private and voluntary sectors
- (b) bribery by the organization or its personnel or others acting on its behalf or for its benefit
- (c) bribery of the organization or of its personnel or others acting on its behalf or for its benefit
- (d) direct and indirect bribery (eg a bribe paid or received through a third party)
- (e) bribery within the country in which the organization is based, and bribery of in other countries in which the organization operates
- (f) bribery of any value whether large or small
- (g) bribery involving both cash and non cash advantages.

The intention is that the standard will address only bribery as defined by the laws of the countries in which an organization is based and/ or is operating. It is not intended that it should be applicable to other criminal offences such as fraud, antitrust and competition offenses or money laundering.

This Standard will be applicable to all organizations, regardless of type, size and nature of business, and whether in the public, private or voluntary sectors.

Anyone wishing to review the new work item proposal can request a copy of the proposal by contacting ANSI's ISO Team via email: [isot@ansi.org](mailto:isot@ansi.org) with submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, December 14, 2012.



## Standards Action Publishing Schedule for 2013, Volume No. 44

Issue	Dates to Submit Data to PSA		Standards Action Dates & Public Review Comment Deadline			
No.	Submit Start	Submit End	SA Published	30-Day PR ends	45-Day PR Ends	60-day PR Ends
1	12/18/2012	12/24/2012	Jan-4	2/3/2013	2/18/2013	3/5/2013
2	12/25/2012	12/31/2012	Jan-11	2/10/2013	2/25/2013	3/12/2013
3	1/1/2013	1/7/2013	Jan-18	2/17/2013	3/4/2013	3/19/2013
4	1/8/2013	1/14/2013	Jan-25	2/24/2013	3/11/2013	3/26/2013
5	1/15/2013	1/21/2013	Feb-1	3/3/2013	3/18/2013	4/2/2013
6	1/22/2013	1/28/2013	Feb-8	3/10/2013	3/25/2013	4/9/2013
7	1/29/2013	2/4/2013	Feb-15	3/17/2013	4/1/2013	4/16/2013
8	2/5/2013	2/11/2013	Feb-22	3/24/2013	4/8/2013	4/23/2013
9	2/12/2013	2/18/2013	Mar-1	3/31/2013	4/15/2013	4/30/2013
10	2/19/2013	2/25/2013	Mar-8	4/7/2013	4/22/2013	5/7/2013
11	2/26/2013	3/4/2013	Mar-15	4/14/2013	4/29/2013	5/14/2013
12	3/5/2013	3/11/2013	Mar-22	4/21/2013	5/6/2013	5/21/2013
13	3/12/2013	3/18/2013	Mar-29	4/28/2013	5/13/2013	5/28/2013
14	3/19/2013	3/25/2013	Apr-5	5/5/2013	5/20/2013	6/4/2013
15	3/26/2013	4/1/2013	Apr-12	5/12/2013	5/27/2013	6/11/2013
16	4/2/2013	4/8/2013	Apr-19	5/19/2013	6/3/2013	6/18/2013
17	4/9/2013	4/15/2013	Apr-26	5/26/2013	6/10/2013	6/25/2013
18	4/16/2013	4/22/2013	May-3	6/2/2013	6/17/2013	7/2/2013
19	4/23/2013	4/29/2013	May-10	6/9/2013	6/24/2013	7/9/2013
20	4/30/2013	5/6/2013	May-17	6/16/2013	7/1/2013	7/16/2013
21	5/7/2013	5/13/2013	May-24	6/23/2013	7/8/2013	7/23/2013
22	5/14/2013	5/20/2013	May-31	6/30/2013	7/15/2013	7/30/2013
23	5/21/2013	5/27/2013	Jun-7	7/7/2013	7/22/2013	8/6/2013
24	5/28/2013	6/3/2013	Jun-14	7/14/2013	7/29/2013	8/13/2013
25	6/4/2013	6/10/2013	Jun-21	7/21/2013	8/5/2013	8/20/2013
26	6/11/2013	6/17/2013	Jun-28	7/28/2013	8/12/2013	8/27/2013
27	6/18/2013	6/24/2013	Jul-5	8/4/2013	8/19/2013	9/3/2013
28	6/25/2013	7/1/2013	Jul-12	8/11/2013	8/26/2013	9/10/2013



## Standards Action Publishing Schedule for 2013, Volume No. 44

Issue	Dates to Submit Data to PSA		Standards Action Dates & Public Review Comment Deadline			
	No.	Submit Start	Submit End	SA Published	30-Day PR ends	45-Day PR Ends
29	7/2/2013	7/8/2013	Jul-19	8/18/2013	9/2/2013	9/17/2013
30	7/9/2013	7/15/2013	Jul-26	8/25/2013	9/9/2013	9/24/2013
31	7/16/2013	7/22/2013	Aug-2	9/1/2013	9/16/2013	10/1/2013
32	7/23/2013	7/29/2013	Aug-9	9/8/2013	9/23/2013	10/8/2013
33	7/30/2013	8/5/2013	Aug-16	9/15/2013	9/30/2013	10/15/2013
34	8/6/2013	8/12/2013	Aug-23	9/22/2013	10/7/2013	10/22/2013
35	8/13/2013	8/19/2013	Aug-30	9/29/2013	10/14/2013	10/29/2013
36	8/20/2013	8/26/2013	Sep-6	10/6/2013	10/21/2013	11/5/2013
37	8/27/2013	9/2/2013	Sep-13	10/13/2013	10/28/2013	11/12/2013
38	9/3/2013	9/9/2013	Sep-20	10/20/2013	11/4/2013	11/19/2013
39	9/10/2013	9/16/2013	Sep-27	10/27/2013	11/11/2013	11/26/2013
40	9/17/2013	9/23/2013	Oct-4	11/3/2013	11/18/2013	12/3/2013
41	9/24/2013	9/30/2013	Oct-11	11/10/2013	11/25/2013	12/10/2013
42	10/1/2013	10/7/2013	Oct-18	11/17/2013	12/2/2013	12/17/2013
43	10/8/2013	10/14/2013	Oct-25	11/24/2013	12/9/2013	12/24/2013
44	10/15/2013	10/21/2013	Nov-1	12/1/2013	12/16/2013	12/31/2013
45	10/22/2013	10/28/2013	Nov-8	12/8/2013	12/23/2013	1/7/2014
46	10/29/2013	11/4/2013	Nov-15	12/15/2013	12/30/2013	1/14/2014
47	11/5/2013	11/11/2013	Nov-22	12/22/2013	1/6/2014	1/21/2014
48	11/12/2013	11/18/2013	Nov-29	12/29/2013	1/13/2014	1/28/2014
49	11/19/2013	11/25/2013	Dec-6	1/5/2014	1/20/2014	2/4/2014
50	11/26/2013	12/2/2013	Dec-13	1/12/2014	1/27/2014	2/11/2014
51	12/3/2013	12/9/2013	Dec-20	1/19/2014	2/3/2014	2/18/2014
52	12/10/2013	12/16/2013	Dec-27	1/26/2014	2/10/2014	2/25/2014

### 2014 Standards Action Schedule - Volume No. 45

1	12/17/2013	12/23/2013	Jan-3	2/2/2014	2/17/2014	3/4/2014
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## APSP/ICC - 15 Addenda A

(10/03/12)

### 5.2 Maximum filtration flow rate

5.2.1 Depending on the size (volume) of the pool, the pool filtration flow rate shall not be greater than the rate needed to turn over the pool water volume in 6 hours using the equation below or 36 gpm, whichever is greater:

$$\text{Maximum Filtration Flow Rate (gpm)} = \text{Pool Volume (gallons)} \div 360$$

**Note:** The Maximum Filtration Flow Rate applies to Sections 5.3.2.1 and 5.3.2.2 for multi speed and variable speed pumps only; it does not apply to single speed pumps. It always applies to Section 5.3.3, multi-speed pump controllers, to Section 5.4 filter sizing, and Section 5.5 pipe sizing. The purpose is to provide energy efficient swimming pool filtration and it does not eliminate the need to evaluate the final system design for compliance with ANSI/APSP-5, ANSI/APSP-7, and local code.

### 5.3 Pool filter pump sizing, flow rate, and filter pump control

5.3.2.1 The following energy efficiency procedures are required for multi speed and variable speed pumps, but shall not be required for single speed pumps. For pools equal to or less than 17,000 gallons, a filter pump shall be chosen such that the flow rate listed for Curve A is less than the maximum filtration flow rate calculated according to Section 5.2.1 (6-hour turnover rate). For multi-speed and variable-speed filter pumps, at least one speed shall have the flow listed for Curve A that is less than the maximum filtration flow rate calculated according to Section 5.2.1 (6-hour turnover rate).

5.3.2.2 The following energy efficiency procedures are required for multi speed and variable speed pumps, but shall not be required for single speed pumps. For pools greater than 17,000 gallons (64.4 kL), a filter pump shall be chosen such that the listed flow rate at Curve C is less than the maximum filtration flow rate calculated according to Section 5.2.1 (6-hour turnover rate). For multi-speed and variable-speed filter pumps, at least one speed shall have the flow listed for Curve C that is less than the maximum filtration flow rate calculated according to Section 5.2.1 (6-hour turnover rate).

#### 5.4.1. Filters sizing.

Filters shall be at least the size specified in NSF/ANSI 50 for public pool intended applications based on the maximum filtration flow rate through the filter.

### 5.5 System piping and circulation

5.5.1. Pool piping and pipe fittings shall be sized according to Table 1 so that the velocity of the water at the maximum filtration flow rate does not exceed 8 feet per second in the return line and 6 feet per second in the suction line.

**NOTE:** The minimum pipe sizes in Section 5.5.1 are for energy efficiency and larger suction piping sizes may be required by ANSI/APSP -7.



**BSR/ASHRAE/IES Addendum an  
to ANSI/ASHRAE/IES Standard 90.1-2010**

**Public Review Draft**

**Proposed Addendum an to  
Standard 90.1-2010, *Energy  
Standard for Buildings Except  
Low-Rise Residential Buildings***

**Independent Substantive Change Public Review (October 2012)  
(Draft shows Proposed Changes to Previous Addendum)**

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BSR/ASHRAE/IES Addendum an to ANSI/ASHRAE/IES Standard 90.1-2010, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

Second Public Review Draft (Independent Substantive Change)

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## FOREWORD

*This ISC is a modification to the first public review of addendum “an” to allow the option to use energy rates either from actual local rates or EIA state data, where approved by the building official. This will help improve the usability of Appendix C where local energy rates are significantly different than the specified average values, such as when 90.1 is used in other countries or in areas/buildings with unique utility sources.*

*[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 an to 90.1-2010

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*Revise the Standard as follows (IP and SI units)*

Modify C3.3 as follows:

**C3.3 Purchased Energy Rates.** The following rates for purchased energy shall be used to determine the *proposed envelope performance factor* and the *base envelope performance factor*:

- a. Electricity: 0.1032/kWh
- b. Heating: 0.99/therm

**Exception:** Where approved by the authority having jurisdiction, actual annual rates for purchased energy or state average energy prices published by the Department of Energy’s Energy Information Administration shall be permitted. The same rates shall be used for both the *proposed envelope performance factor* and the *base envelope performance factor*.



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## FOREWORD

*This addendum corrects the definitions for walk-in coolers and walk-in freezers.*

*[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 ar to 90.1-2010

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*Revise the Standard as follows (I-P units and SI)*

### 3.2 Definitions

*walk-in cooler:* an enclosed storage space of less than 3,000 square feet, designed to maintain space at greater than ~~or equal to~~ 32°F but less than 55°F that can be walked into.

*walk-in freezer:* an enclosed storage space of less than 3,000 square feet, designed to maintain space at less than or equal to 32°F that can be walked into.



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## FOREWORD

*Reduce occupancy threshold for demand controlled ventilation from greater than 40 people per 1000 ft<sup>2</sup> to equal to or greater than 25 people per 1000 ft<sup>2</sup> with exemptions for certain occupancies. This change will expand the occupancies where demand controlled ventilation is required. Occupancies that would be included that are not included now (based on Standard 62.1 default densities) would be Classrooms; Music/dance class; Conference lobbies; Office Reception; Museum; Mall commons; Gym; and health club. Daycare; computer labs; and break rooms. Exempt occupancies would be: Correctional cells; Daycare sickrooms; Science labs; Barber; beauty & nail salons; and bowling alley seating.*

*The expansion to more spaces is justified based on reduction in costs for demand controlled ventilation controls and increases in ventilation energy costs. These lower density thresholds have been adopted in many state energy codes, including Washington, Oregon, and California. There are also a LEED credit available for IAQ monitoring met by the most typical demand controlled ventilation method.*

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## Addendum bs to 90.1-2010

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*Revise the Standard as follows (IP and SI units)*

**6.4.3.9 Ventilation Controls for High-Occupancy Areas.** Demand control ventilation (DCV) is required for spaces larger than 500 ft<sup>2</sup> and with a design occupancy for ventilation of greater than or equal to 25 ~~40~~ people per 1000 ft<sup>2</sup> of floor area and served by systems with one or more of the following:

- a. an air-side economizer,
- b. *automatic* modulating control of the outdoor air damper, or
- c. a design outdoor airflow greater than 3000 cfm.

### Exceptions:

- a. Systems with the exhaust air energy recovery complying with Section 6.5.6.1.
- b. Multiple-zone systems without DDC of individual zones communicating with a central control panel.
- c. Systems with a design outdoor airflow less than 750~~200~~ cfm ( 375~~600~~ L/s).
- d. Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.

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e. Spaces with the following occupancies: Correctional cells; Daycare sickrooms; Science labs; Barber; beauty & nail salons; and bowling alley seating.



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## FOREWORD

*Vestibules are installed to reduce infiltration into the building. The benefit of a vestibule during the heating season is negated if the vestibule is heated to the heating setpoint of the adjacent space. At the same time, tempering of vestibule air is needed to avoid ice formation. A major retailer has reported that they temper vestibule air to 40°F.*

*The proposed addendum requires that vestibule heating be locked out when outside air is above 45°F, the same temperature that lockout of freeze protection or ice melting systems is required in section 6.4.3.8. An exception is allowed when the vestibule is unheated or tempered with transfer air rather than directly heated. Transfer air heating is beneficial because that conditioned air is destined to be exhausted anyway, and pressurizing the vestibule may reduce infiltration further.*

*Air curtains are also covered, as significant heating energy can be expended if air curtain heating operates when not necessary.*

*The phrase “configured to” is used instead of “capable of.” The word “capable” is not the best mandatory language for controls, as control equipment can be provided that could be said to be capable of achieving the desired result even though the setpoint is not correct or the programming is not even complete. Using “configured” implies that all programming is complete and setpoints correct, yet focuses on the present state at time of inspection rather than future operation.*

*Cost effectiveness: This represents a minor additional requirement, and where there is DDC control, there is no additional cost to add outside air lockout to vestibule heating control. Where vestibule heating is separately controlled, limiting the setpoint to 45°F meets the requirements without any additional cost.*

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## **Addendum ca to 90.1-2010**

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*Revise the Standard as follows (IP Units)*

*Relevant Standard 90.1 definitions (included for reference only):*

***setpoint:*** point at which the desired temperature (°F) of the heated or cooled space is set.

*(Add a new section 6.4.3.9 and renumber existing section 6.4.3.9 and following sections)*

**6.4.3.9 Heating for vestibules in accordance with 5.4.3.4 and air curtains shall include automatic controls configured to shut off the heating system when outdoor air temperatures are above 45°F. Vestibule heating systems shall also be controlled by a thermostat in the vestibule with a setpoint limited to a maximum of 60°F.**

**Exception:** Vestibules with no heating system or that are tempered with *transfer air* that would otherwise be exhausted.



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*Revise the Standard as follows (SI Units)*

*Relevant Standard 90.1 definitions (included for reference only):*

***setpoint:*** point at which the desired temperature (°C) of the heated or cooled space is set.

*(Add a new section 6.4.3.9 and renumber existing section 6.4.3.9 and following sections)*

**6.4.3.9** Heating for vestibules in accordance with 5.4.3.4 and air curtains shall include automatic controls configured to shut off the heating system when outdoor air temperatures are above 7°C. Vestibule heating systems shall also be controlled by a thermostat in the vestibule with a *setpoint* limited to a maximum of 16°C.

**Exception:** Vestibules with no heating system or that are tempered with *transfer air* that would otherwise be exhausted.



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## FOREWORD

*Optimum start is a commonly available energy saving control sequence, being readily available in DDC systems and most commercial programmable thermostats. It is currently required in air-based systems larger than 10,000 cfm. Unfortunately, optimum start is likely one of the most disabled options in control systems. Disabling occurs because facility operators may not trust the automated algorithms used, they may not be interested in taking the time to properly tune or set up the system, or they may have had an experience of optimum start failing to warm up or cool down a space by the occupied time sometime during their career. In unitary system control most programmable thermostats use only space temperature to determine optimum start. Whether they have internal “learning” algorithms or they use a set response related to design conditions, these systems will eventually fail to achieve the desired space temperature by occupancy start due to a cold snap. The space-temperature-only optimum start approaches will fail because the setback temperature is maintained by the system, and a space temperature at the setback condition gives no indication of the larger startup load required when outside conditions are extreme.*

*Introducing outside air temperature as one of the parameters in an optimum start algorithm will allow systems to start earlier during extreme outside conditions, and avoid “space not at temperature” occurrences that result from current optimum start algorithms based only on time and space temperature. This will improve reliability and acceptance of optimum start, resulting in more energy savings throughout the year even if optimum start is suspended during extreme conditions. Implementing the outside air input in a DDC system is readily achievable without any new technology, and can be implemented either with or without a learning algorithm.*

*At this time, only one manufacturer was found who provided a (non-customizable) programmable thermostat using optimum start with outside air input, so it is unreasonable to require thermostats to have this feature at this time in a minimum efficiency standard.*

*The addendum removes the 10,000 cfm threshold for optimum start and adds a threshold for systems controlled by DDC. The addendum also expands the requirement beyond air-based systems so that convectors and radiant systems would be included. Language is added so it is clear that optimum start is only required for systems with setback control requirements.*

*Radiant heating systems are currently exempt from setback requirements. While it is true that radiant systems take longer to recover space temperature, a modest setback can provide significant savings and a period of off time daily for boilers and distribution systems, especially in mild weather. Multiple manufacturers make radiant thermostats with setback capability that includes floor sensors to avoid overshoot of heating after warm up. The radiant heat exception to setback is revised to allow a smaller heating setback as is appropriate for radiant systems.*

*The cooling setback language is revised to apply to mechanical cooling so that air or water economizer cooling can be used to maintain occupied cooling setpoints or pre-cool the space during unoccupied periods. An exception for mechanical precooling for load shifting is added, as the current mandatory provision would not allow such a strategy. Should a mechanical pre-cooling strategy be desired for demand reduction or time/load*

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*shifting, it is appropriate to conduct a specific building simulation to verify that the proposed approach provides a performance benefit for the particular situation, so an analysis is required for this exception.*

*The phrase “that have the capability” is changed to “configured” throughout. The word “capable” is not the best mandatory language for controls, as control equipment can be provided that could be said to be capable of achieving the desired result even though the setpoint is not correct or the programming is not even complete. Using “configured” implies that all programming is complete and setpoints correct, yet focuses on the present state at the time of inspection rather than future operation.*

*Cost effectiveness: this represents a minor shift in an existing requirement, and since optimum start would only be required for DDC systems that typically have readily available standard sequences for optimum start there is no significant additional cost to implementing optimum start for additional systems with a DDC system. The floor sensor requirement for radiant floors is a minor cost in new construction, and a floor sensor is often used in standard practice for a mass floor radiant application.*

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## **Addendum cb to 90.1-2010**

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*Revise the Standard as follows (IP and SI Units)*

*(Relevant Standard 90.1 definitions included for reference only):*

***cool down:*** reduction of space temperature down to occupied setpoint after a period of shutdown or setup.

***direct digital control (DDC):*** a type of control where controlled and monitored analog or binary data (e.g., temperature, contact closures) are converted to digital format for manipulation and calculations by a digital computer or microprocessor, then converted back to analog or binary form to control physical devices.

***optimum start controls:*** controls that are designed to automatically adjust the start time of an HVAC system each day with the intention of bringing the space to desired occupied temperature levels immediately before scheduled occupancy.

***setback:*** reduction of heating (by reducing the setpoint) or cooling (by increasing the setpoint) during hours when a building is unoccupied or during periods when lesser demand is acceptable.

***setpoint:*** point at which the desired temperature (°F) of the heated or cooled space is set.

***warm-up:*** increase in space temperature to occupied setpoint after a period of shutdown or setback.

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**6.4.3.3.2 Setback Controls.** Heating systems ~~located in climate zones 2–8~~ shall be equipped with controls ~~that have the capability~~ configured to automatically restart and temporarily operate the system as required to maintain *zone* temperatures above an adjustable heating setpoint ~~adjustable down to 55°F or lower at least 10°F (5.6°C)~~ below the occupied heating setpoint. Cooling systems ~~located in climate zones 1b, 2b, and 3b~~ shall be equipped with controls ~~that have the capability~~ configured to automatically restart and temporarily operate the mechanical cooling system as required to maintain *zone* temperatures below an adjustable cooling setpoint ~~adjustable up to 90°F or higher at least 5°F (2.8°C)~~ above the occupied cooling setpoint or to prevent high space humidity levels.

**Exception:** Radiant floor and ceiling heating systems configured with a setback heating setpoint at least 4°F below the occupied heating setpoint.

**6.4.3.3.3 Optimum Start Controls.** Individual heating and cooling ~~air distribution systems~~ with setback controls and DDC ~~with a total design supply air capacity exceeding 10,000 cfm, served by one or more supply fans,~~ shall have *optimum start controls*. The control algorithm shall, as a minimum, be a function of the difference between space temperature and occupied *setpoint*, the outside air temperature, and the amount of time prior to scheduled occupancy. Mass radiant floor slab systems shall incorporate floor temperature into the optimum start algorithm.



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## **FOREWORD**

*Evaporatively cooled heat rejection devices are key components of the most efficient refrigeration and HVAC systems on the market. Addendum “bp”, which added minimum efficiency for evaporative condensers used in ammonia applications, recently passed its public review period with no comments and is expected to be included in the 2013 edition of Standard 90.1.*

*Although the majority of evaporative condenser applications are ammonia based, a significant number of refrigeration systems are applied using halocarbon refrigerants. To accommodate these applications, this addendum adds minimum efficiencies for both axial and centrifugal fan evaporative condensers with R-507A as the test fluid to Table 6.8.1G. Because of the numerous halocarbon refrigerants that can be utilized, a footnote has been added to the table that clarifies that evaporative condenser models intended for use with halocarbon refrigerants other than R-507A must meet the minimum efficiency requirements listed for R-507A as the test fluid.*

*This Addendum is supported by the Air Cooled and Evaporative Condenser Sub-Section of the Industrial Refrigeration Heat Transfer Product Section of AHRI and the Standards Subcommittee of ASHRAE TC08.06 for Cooling Towers and Evaporative Condensers.*

*If you are comparing this public review draft to the most recent published version of the standard, you will notice that there are some additional changes not shown in strikethrough/underline. Please note that these modifications to Table 6.8.1G occurred in the first public review drafts of addenda az and bp to 90.1-2010. If you would like to view the changes from those two addenda, you may view them as “Related Archived Documents” in the ASHRAE online comment database at [osr.ashrae.org](http://osr.ashrae.org)*

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## Addendum cc to 90.1-2010

Revise the Standard as follows (I-P units):

**TABLE 6.8.1G Performance Requirements for Heat Rejection Equipment**

Equipment Type	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition <sup>h</sup>	Performance Required <sup>a,b,c,d,f,g</sup>	Test Procedure <sup>e</sup>
Propeller or axial fan open-circuit cooling towers	All	95°F entering water 85°F leaving water 75°F entering <i>wb</i>	≥40.2 gpm/hp	CTI ATC-105 and CTI STD-201
Centrifugal fan open-circuit cooling towers	All	95°F entering water 85°F leaving water 75°F entering <i>wb</i>	≥20.0 gpm/hp	CTI ATC-105 and CTI STD-201
Propeller or axial fan closed-circuit cooling towers	All	102°F entering water 90°F leaving water 75°F entering <i>wb</i>	≥14.0 gpm/hp	CTI ATC-105S and CTI STD-201
Centrifugal closed-circuit cooling towers	All	102°F entering water 90°F leaving water 75°F entering <i>wb</i>	≥7.0 gpm/hp	CTI ATC-105S and CTI STD-201
Propeller or axial fan evaporative condensers	All	Ammonia Test Fluid 140°F entering gas temperature 5.3°F condensing temperature 75°F entering <i>wb</i>	≥134,000 Btu/h-hp	CTI ATC-106
Centrifugal fan evaporative condensers	All	Ammonia Test Fluid 140°F entering gas temperature 96.3°F condensing temperature 75°F entering <i>wb</i>	≥110,000 Btu/h-hp	CTI ATC-106
<u>Propeller or axial fan evaporative condensers</u>	<u>All</u>	<u>R-507A Test Fluid</u> <u>165°F entering gas temperature</u> <u>105°F condensing temperature</u> <u>75°F entering <i>wb</i></u>	<u>≥157,000 Btu/h-hp</u>	<u>CTI ATC-106</u>
<u>Centrifugal fan evaporative condensers</u>	<u>All</u>	<u>R-507A Test Fluid</u> <u>165°F entering gas temperature</u> <u>105°F condensing temperature</u> <u>75°F entering <i>wb</i></u>	<u>≥135,000 Btu/h-hp</u>	<u>CTI ATC-106</u>
Air-cooled condensers	All	125°F condensing temperature 190°F entering gas temperature 15°F subcooling 95°F entering <i>db</i>	≥176,000 Btu/h-hp	AHRI 460



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- <sup>a</sup> For purposes of this table, *open-circuit cooling tower* performance is defined as the water flow rating of the tower at the thermal rating condition listed in Table 6.8.1G divided by the fan motor nameplate power.
- <sup>b</sup> For purposes of this table, *closed-circuit cooling tower performance* is defined as the process water flow rating of the tower at the thermal rating condition listed in Table 6.8.1G divided by the sum of the fan motor nameplate power and the integral spray pump motor nameplate power.
- <sup>c</sup> For purposes of this table, *air-cooled condenser performance* is defined as the heat rejected from the refrigerant divided by the fan motor nameplate power.
- <sup>d</sup> Section 12 contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.
- <sup>e</sup> The efficiencies and test procedures for both *open-* and *closed-circuit cooling towers* are not applicable to hybrid cooling towers that contain a combination of separate wet and dry heat exchange sections. The certification requirements do not apply to field erected cooling towers.
- <sup>f</sup> All cooling towers shall comply with the minimum efficiency listed in the table for that specific type of tower with the capacity effect of any project specific accessories and / or options included in the capacity of the cooling tower.
- <sup>g</sup> For purposes of this table, evaporative condenser performance is defined as the heat rejected at the specified rating condition in the table divided by the sum of the fan motor nameplate power and the integral spray pump nameplate power.
- <sup>h</sup> Requirements for evaporative condensers are listed with ammonia (R-717) and R-507A as test fluids in the table. Evaporative condensers intended for use with halocarbon refrigerants other than R-507A must meet the minimum efficiency requirements listed above with R-507A as the test fluid.

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Revise the Standard as follows (S-I units):

**TABLE 6.8.1G Performance Requirements for Heat Rejection Equipment**

Equipment Type	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition <sup>h</sup>	Performance Required <sup>a,b,c,d,f,g</sup>	Test Procedure <sup>e</sup>
Propeller or axial fan open-circuit cooling towers	All	35.0°C entering water 29.4°C leaving water 23.9°C <i>entering wb</i>	≥3.23 L/s <sub>kW</sub>	CTI ATC-105 and CTI STD-201
Centrifugal fan open-circuit cooling towers	All	35.0°C entering water 29.4°C leaving water 23.9°C <i>entering wb</i>	≥1.7 L/s <sub>kW</sub>	CTI ATC-105 and CTI STD-201
Propeller or axial fan closed-circuit cooling towers	All	38.9°C entering water 32.2°C leaving water 23.9°C <i>entering wb</i>	≥1.18 L/s <sub>kW</sub>	CTI ATC-105S and CTI STD-201
Centrifugal closed-circuit cooling towers	All	38.9°C entering water 32.2°C leaving water 23.9°C <i>entering wb</i>	≥0.59 L/s <sub>kW</sub>	CTI ATC-105S and CTI STD-201
Propeller or axial fan evaporative condensers	All	Ammonia Test Fluid 60°C entering gas temperature 35.7°C condensing temperature 23.9°C <i>entering wb</i>	≥52.6 COP	CTI ATC-106
Centrifugal fan evaporative condensers	All	Ammonia Test Fluid 60°C entering gas temperature 35.7°C condensing temperature 23.9°C <i>entering wb</i>	≥43.2 COP	CTI ATC-106
<u>Propeller or axial fan evaporative condensers</u>	<u>All</u>	<u>R-507A Test Fluid</u> <u>73.9°C entering gas temperature</u> <u>40.6°C condensing temperature</u> <u>23.9°F entering wb</u>	<u>≥61.6 COP</u>	<u>CTI ATC-106</u>
<u>Centrifugal fan evaporative condensers</u>	<u>All</u>	<u>R-507A Test Fluid</u> <u>73.9°C entering gas temperature</u> <u>40.6°C condensing temperature</u> <u>23.9°C entering wb</u>	<u>≥53.0 COP</u>	<u>CTI ATC-106</u>
Air-cooled condensers	All	52°C condensing temperature 88°C entering gas temperature 8°C subcooling 35°C <i>entering db</i>	≥69 COP	AHRI 460

<sup>a</sup> For purposes of this table, *open-circuit cooling tower* performance is defined as the water flow rating of the tower at the thermal rating condition listed in Table 6.8.1G divided by the fan motor nameplate power.

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- <sup>b</sup> For purposes of this table, *closed-circuit cooling tower performance* is defined as the process water flow rating of the tower at the thermal rating condition listed in Table 6.8.1G divided by the sum of the fan motor nameplate power and the integral spray pump motor nameplate power.
- <sup>c</sup> For purposes of this table, *air-cooled condenser performance* is defined as the heat rejected from the refrigerant divided by the fan motor nameplate power.
- <sup>d</sup> Section 12 contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.
- <sup>e</sup> The efficiencies and test procedures for both *open-* and *closed-circuit cooling towers* are not applicable to hybrid cooling towers that contain a combination of separate wet and dry heat exchange sections. The certification requirements do not apply to field erected cooling towers.
- <sup>f</sup> All cooling towers shall comply with the minimum efficiency listed in the table for that specific type of tower with the capacity effect of any project specific accessories and / or options included in the capacity of the cooling tower.
- <sup>g</sup> For purposes of this table, evaporative condenser performance is defined as the heat rejected at the specified rating condition in the table divided by the sum of the fan motor nameplate power and the integral spray pump nameplate power.
- <sup>h</sup> Requirements for evaporative condensers are listed with ammonia (R-717) and R-507A as test fluids in the table. Evaporative condensers intended for use with halocarbon refrigerants other than R-507A must meet the minimum efficiency requirements listed above with R-507A as the test fluid.



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## FOREWORD

*In the current standard, “piping” is required to have minimum levels of insulation, minimum pipe sizes, etc. In all cases, the intent was that the same requirements also apply to all of the piping accessories that are in series with the piping that also sees fluid flow, such as pumps, valves, strainers, air separators, etc., but the dictionary and ASHRAE Terminology definitions of “piping” do not clearly include these elements. Other piping system accessories that are not in series with the piping circuit, such as expansion tanks, fill lines, chemical feeders, and drains, were not intended to be included because they do not have the same heat losses/gains and pressure drop. This addendum is intended to make this distinction clear.*

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## Addendum cd to 90.1-2010

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*Add this definition to Chapter 3 of the Standard (S-I and I-P units)*

**Piping.** The pipes or tubes interconnecting the various parts of a fluid distribution system including all elements that are in series with the fluid flow such as pumps, valves, strainers, and air separators, but not including elements that are not in series with the fluid flow such as expansion tanks, fill lines, chemical feeders, and drains.

*Change “pipe” to “piping” in various locations in the Standard (S-I and I-P units) where the intent was to cover the entire piping system not just pipes. (Not all uses of “pipe” are replaced; only those that are substantive with respect to requirements in the standard.)*

*In 6.1.1.3.5:*

6.1.1.3.5 New and replacement *piping* shall comply with Section 6.4.4.1.

Exceptions: Compliance shall not be required:

a...

e. for ducts and ~~pipes~~ *piping* where there is insufficient space or access to meet these requirements.

*In 6.5.4.5:*

6.5.4.5 Pipe Sizing. All chilled-water and condenser water *piping* shall be designed such that the design flow rate in each ~~pipe~~*piping* segment shall not exceed the values listed in Table 6.5.4.5 for the appropriate total annual hours of operation. ~~Pipe~~*Piping* size selections for systems that operate under variable flow conditions (e.g., modulating two-way control valves at coils) and that contain variable-speed pump motors are allowed to

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be made from the “Variable Flow/Variable Speed” columns. All others shall be made from the “Other” columns.

Exceptions:

- a. Design flow rates exceeding the values in Table 6.5.4.5 are allowed in specific sections of ~~pipe~~*pip*~~ing~~ if the ~~pipe~~*pip*~~ing~~ in question is not in the critical circuit at design conditions and is not predicted to be in the critical circuit during more than 30% of operating hours.
- b. *Piping* systems that have equivalent or lower total pressure drop than the same system constructed with standard weight steel pipe with *pip*~~ing~~ and fittings sized per Table 6.5.4.5.

*Title of Tables 6.8.3A and B:*

**TABLE 6.8.3A Minimum ~~Pipe~~*Pip*~~ing~~ Insulation Thickness**

**TABLE 6.8.3B Minimum ~~Pipe~~*Pip*~~ing~~ Insulation Thickness**

*Section 7.4.3:*

7.4.3 Service Hot-Water *Piping* Insulation. The following *pip*~~ing~~ shall be insulated to levels shown in Section 6, Table 6.8.3:

- a. recirculating system *pip*~~ing~~, including the supply and return *pip*~~ing~~ of a circulating tank type water heater
- b. the first 8 ft of outlet *pip*~~ing~~ for a constant temperature nonrecirculating storage system
- c. the inlet ~~pipe~~*pip*~~ing~~ between the storage tank and a heat trap in a nonrecirculating storage system
- d. ~~pipe~~*pip*~~ing~~ that ~~are~~ *is* externally heated (such as heat trace or impedance heating)



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## FOREWORD

*This addendum establishes package single zone systems as the baseline HVAC system type for all retail occupancies of two stories and less. Prior to this change, large retail facilities would have VAV reheat baseline systems which are not at all common in that building type. This change sets a more realistic baseline building HVAC system.*

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## Addendum ce to 90.1-2010

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*Revise the Standard as follows*

**TABLE G3.1.1A Baseline HVAC System Types**

<b>Building Type</b>	<b>Fossil Fuel, Fossil/Electric Hybrid, and Purchased Heat</b>	<b>Electric and Other</b>
Residential	System 1—PTAC	System 2—PTHP
Nonresidential and 3 Floors or Less and <25,000 ft <sup>2</sup>	System 3—PSZ-AC	System 4—PSZ-HP
Nonresidential and 4 or 5 Floors and <25,000 ft <sup>2</sup> or 5 Floors or Less and 25,000 ft <sup>2</sup> to 150,000 ft <sup>2</sup>	System 5—Packaged VAV with Reheat	System 6—Packaged VAV with PFP Boxes
Nonresidential and More than 5 Floors or >150,000 ft <sup>2</sup>	System 7—VAV with Reheat	System 8—VAV with PFP Boxes
Heated Only Storage	System 9—Heating and Ventilation	System 10—Heating and Ventilation
<u>Retail and 2 Floors or Less</u>	<u>System 3—PSZ-AC</u>	<u>System 4—PSZ-HP</u>





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## **FOREWORD**

*Addendum f established baseline building window-to-wall ratios for different building types in Appendix G. Based on limited data available at the time, a value only applicable to stand alone retail buildings was established. Since that time new data has become available that has enabled the establishment of a window-to-wall ration for retail strip mall buildings, which is added in this current addendum.*

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## **Addendum cf to 90.1-2010**

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*Revise the Standard as follows (IP and SI units)*

### **TABLE G3.3 Baseline Building Vertical Fenestration Percentage of Gross Above Grade Wall Area**

Retail (Strip Mall) 20%



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## FOREWORD

*This addendum requires the use of dual maximum control for VAV zone control when the building has DDC controls.*

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## Addendum ck to 90.1-2010

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*Revise the Standard as follows (IP and SI Units)*

### 6.5.2 Simultaneous Heating and Cooling Limitation

#### 6.5.2.1 Zone Controls. Zone thermostatic controls shall prevent

- a. reheating,
- b. recooling,
- c. mixing or simultaneously supplying air that has been previously mechanically heated and air that has been previously cooled, either by mechanical cooling or by economizer systems, and
- d. other simultaneous operation of heating and cooling systems to the same zone.

Exceptions:

- a. Zones without DDC for which the volume of air that is reheated, re-cooled, or mixed is less than the larger of the following:
  1. 30% of the zone design peak supply rate;
  2. The outdoor airflow rate required to meet the ventilation requirements of ~~section 6.2 of~~ ASHRAE standard 62.1 for the zone:

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3. Any higher rate that can be demonstrated, to the satisfaction of the authority having jurisdiction, to reduce overall system annual energy usage by offsetting reheat/recool energy losses through a reduction in outdoor air intake for the system.

4. The air flow rate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.

b. Zones with DDC that comply with all of the following:

1. The air flow rate in dead band between heating and cooling does not exceed the largest of the following:

i. 20% of the zone design peak supply rate;

ii. The outdoor air flow rate required to meet the ventilation requirements of ~~Section 6.2 of~~ ASHRAE Standard 62.1 for the zone;

iii. Any higher rate that can be demonstrated, to the satisfaction of the authority having jurisdiction, to reduce overall system annual energy usage by offsetting reheat/recool energy losses through a reduction in outdoor air intake.

iv. The air flow rate required to comply with applicable codes or accreditation standards, such as pressure relationships or minimum air change rates.

2. The air flow rate that is reheated, recooled, or mixed in ~~peak heating demand~~ shall be less than 50% of the zone design peak supply rate.

~~3. Airflow between dead band and full heating or full cooling shall be modulated.~~

3. The first stage of heating consists of modulating the zone supply air temperature setpoint up to a maximum setpoint while the airflow is maintained at the dead band flow rate.

4. The second stage of heating consists of modulating the airflow rate from the dead band flow rate up to the heating maximum flow rate.

c. Laboratory exhaust systems that comply with 6.5.7.2.

d. Zones where at least 75% of the energy for reheating or for providing warm air in mixing systems is provided from a site-recovered (including condenser heat) or site-solar energy source.



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**Proposed Addendum cl to Standard**  
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***Buildings Except Low-Rise***  
***Residential Buildings***

**First Public Review (October 2012)**  
**(Draft shows Proposed Changes to Current Standard)**

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## FOREWORD

*In 2007, ASHRAE approved amendments to Standard 90.1 (addendum s to ASHRAE 90.1-2007) which established for the first time new part load integrated energy efficiency ratios (IEER) for commercial air-cooled air conditioners and heat pumps greater than 65,000 Btu/h. These new IEER minimums became effective on January 1, 2010. In 2010, ASHRAE approved additional amendments to ASHRAE 90.1 (addendum CO to ASHRAE 90.1-2007) that added minimum IEER to water-cooled and evaporatively cooled commercial air conditioners greater than 65,000 Btu/h. These requirements became effective on June 1, 2011.*

*This proposal updates the IEER values for air-cooled and water-cooled air conditioners and heat pumps above 65,000 Btu/h. Depending on the cooling capacity and product classes, the new IEERs are between 7 and 13% better than the values they are replacing. The new IEERs will become effective on January 1, 2016.*

***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 cl to 90.1-2010

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*Revise the Standard as follows*

*Revise Tables 6.8.1 A and B as follows:*

**TABLE 6.8.1A Electrically Operated Unitary Air Conditioners and Condensing Units – Minimum Efficiency Requirements (IP)**

Equipment Type	Size Category	Heating Section Type	Sub-Category or Rating Condition	Minimum Efficiency	Test Procedure <sup>a</sup>
Air Conditioners, air Cooled	<65,000 Btu/h <sup>p</sup>	All	Split System	13.0 SEER	AHRI 210/240
			Single Package	13.0 SEER	
Through-the-wall (air cooled)	≤30,000 Btu/h <sup>p</sup>	All	Split system	12.0 SEER	AHRI 340/360
			Single Package	12.0 SEER	
Air conditioners, air cooled	≥65,000 Btu/h and <135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.2 EER	AHRI 340/360
				11.4 IEER (before 1/1/2016) 12.8 IEER (as of 1/1/2016)	

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	All other	Split System and Single Package	11.0 EER 11.2 IEER (before 1/1/2016) 12.6 IEER (before 1/1/2016)	
≥135,000 Btu/h and <240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER (before 1/1/2016) 12.4 IEER (as of 1/1/2016)	
	All other	Split System and Single Package	10.8 EER 11.0 IEER (before 1/1/2016) 12.2 IEER (as of 1/1/2016)	
≥240,000 Btu/h and <760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.0 EER 10.1 IEER (before 1/1/2016) 11.6 IEER (as of 1/1/2016)	
	All other	Split System and Single Package	9.8 EER 9.9 IEER (before 1/1/2016) 11.4 IEER (as of 1/1/2016)	
≥760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.7 EER 9.8 IEER (before 1/1/2016) 11.2 IEER (as of 1/1/2016)	
	All other	Split System and Single Package	9.5 EER 9.6 IEER (before 1/1/2016) 11.0 IEER (as of 1/1/2016)	
< 65,000 Btu/h	All	Split System and Single Package	12.1 EER 12.3 IEER	AHRI 210/240
≥65,000 Btu/h and <135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	41.5 EER (before 6/1/2014) 12.1 EER (as of 6/1/2014) 41.7 IEER (before 6/1/2014) 12.3 IEER (as of 6/1/2014) before 1/1/2016 13.9 IEER (as of 1/1/2016)	
	All other	Split System and Single Package	11.3 EER (before 6/1/2014) 11.9 EER (as of 6/1/2014) 41.5 IEER (before 6/1/2014) 12.1 IEER (as of 6/1/2014) before 1/1/2016 13.7 IEER (as of 1/1/2016)	
≥135,000 Btu/h and <240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	41.0 EER (before 6/1/2014) 12.5 EER (as of 6/1/2014) 41.2 IEER (before 6/1/2014) 12.5 IEER (as of 6/1/2014) before 1/1/2016 13.9 IEER (as of 1/1/2016)	AHRI 340/360
	All other	Split System and Single Package	40.8 EER (before 6/1/2014) 12.3 EER (as of 6/1/2014) 41.0 IEER (before 6/1/2014) 12.5 IEER (as of 6/1/2014) before 1/1/2016 13.7 IEER (as of 1/1/2016)	
≥240,000 Btu/h and <760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	41.0 EER (before 6/1/2014) 12.4 EER (as of 6/1/2014) 41.1 IEER (before 6/1/2014) 12.6 IEER (as of 6/1/2014) before 1/1/2016 13.6 IEER (as of 1/1/2016)	
	All other	Split System and Single Package	40.8 EER (before 6/1/2014) 12.2 EER (as of 6/1/2014) 40.9 IEER (before 6/1/2014) 12.4 IEER (as of 6/1/2014) before 1/1/2016 13.4 IEER (as of 1/1/2016)	



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**TABLE 6.8.1A Electrically Operated Unitary Air Conditioners and Condensing Units – Minimum Efficiency Requirements (continued) (IP)**

Equipment Type	Size Category	Heating Section Type	Sub-Category or Rating Condition	Minimum Efficiency <sup>a</sup>	Test Procedure <sup>b</sup>
Air Conditioners, water Cooled	≥760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER (before 6/1/2011) 12.2 EER (as of 6/1/2011) 11.1 IEER (before 6/1/2011) 12.4 IEER (as of 6/1/2011 before 1/1/2016) 13.5 IEER (as of 1/1/2016)	AHRI 340/360
		All other	Split System and Single Package	10.8 EER (before 6/1/2011) 12.0 EER (as of 6/1/2011) 10.9 IEER (before 6/1/2011) 12.2 IEER (as of 6/1/2011 before 1/1/2016) 13.3 IEER (as of 1/1/2016)	
Air Conditioners, evaporatively cooled	< 65,000 Btu/h <sup>b</sup>	All	Split System and Single Package	12.1 EER 12.3 IEER	AHRI 210/240
	≥65,000 Btu/h and <135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.5 EER (before 6/1/2011) 12.1 EER (as of 6/1/2011) 11.7 IEER (before 6/1/2011) 12.3 IEER (as of 6/1/2011)	AHRI 340/360
		All other	Split System and Single Package	11.3 EER (before 6/1/2011) 11.9 EER (as of 6/1/2011) 11.5 IEER (before 6/1/2011) 12.1 IEER (as of 6/1/2011)	
	≥135,000 Btu/h and <240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER (before 6/1/2011) 12.0 EER (as of 6/1/2011) 11.2 IEER (before 6/1/2011) 12.2 IEER (as of 6/1/2011)	AHRI 340/360
		All other	Split System and Single Package	10.8 EER (before 6/1/2011) 11.8 EER (as of 6/1/2011) 11.0 IEER (before 6/1/2011) 12.0 IEER (as of 6/1/2011)	
	≥240,000 Btu/h and <760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER (before 6/1/2011) 11.9 EER (as of 6/1/2011) 11.1 IEER (before 6/1/2011) 12.1 IEER (as of 6/1/2011)	AHRI 340/360
		All other	Split System and Single Package	10.8 EER (before 6/1/2011) 11.7 EER (as of 6/1/2011) 10.9 IEER (before 6/1/2011) 11.9 IEER (as of 6/1/2011)	
	≥760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER (before 6/1/2011) 11.7 EER (as of 6/1/2011) 11.1 IEER (before 6/1/2011) 11.9 IEER (as of 6/1/2011)	AHRI 340/360
		All other	Split System and Single Package	10.8 EER (before 6/1/2011) 11.5 EER (as of 6/1/2011) 10.9 IEER (before 6/1/2011) 11.7 IEER (as of 6/1/2011)	
	Condensing units air cooled	≥135,000Btu/h			10.1 EER (before 6/1/2011) 10.5 EER (as of 6/1/2011) 11.4 IEER (before 6/1/2011) 11.8 IEER (as of 6/1/2011)
Condensing units water cooled	≥135,000Btu/h			13.1 EER (before 6/1/2011) 13.5 EER (as of 6/1/2011) 13.6 IEER (before 6/1/2011) 14.0 IEER (as of 6/1/2011)	AHRI 365
Condensing units evaporatively cooled	≥135,000Btu/h			13.1 EER (before 6/1/2011) 13.5 EER (as of 6/1/2011) 13.6 IEER (before 6/1/2011) 14.0 IEER (as of 6/1/2011)	

<sup>a</sup> Section 12 contains a complete specification of the referenced test procedure, including the reference year version of the test procedure<sup>b</sup> Single phase, air cooled air conditioners <65,000 Btu/hr are regulated by NAECA, SEER values are those set by NAECA

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**TABLE 6.8.1 B Electrically Operated Unitary and Applied Heat Pumps—  
 Minimum Efficiency Requirements**

Equipment Type	Size Category	Heating Section Type	Sub-Category or Rating Condition	Minimum Efficiency	Test Procedure <sup>a</sup>
Air cooled (cooling mode)	<65,000 Btu/h <sup>b</sup>	All	Split System	13.0 SEER	AHRI 210/240
			Single Packaged	13.0 SEER	
Through-the-wall, air cooled	≤30,000 Btu/h <sup>b</sup>	All	Split System	12.0 SEER	
			Single Packaged	12.0 SEER	
Air Cooled (Cooling Mode)	≥65,000 Btu/h and <135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 11.2 IEER (before 1/1/2016) 12.0 IEER (as of 1/1/2016)	AHRI 340/360
			All other	Split System and Single Package	
		Electric Resistance (or None)	Split System and Single Package	10.6 EER 10.7 IEER (before 1/1/2016) 11.6 IEER (as of 1/1/2016)	
			All other	Split System and Single Package	
	≥135,000 Btu/h and <240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	9.5 EER 9.6 IEER (before 1/1/2016) 10.6 IEER (as of 1/1/2016)	
			All other	Split System and Single Package	
		Electric Resistance (or None)	Split System and Single Package	9.5 EER 9.6 IEER (before 1/1/2016) 10.6 IEER (as of 1/1/2016)	
			All other	Split System and Single Package	
Water to Air: Water Loop (cooling mode)	<17,000 Btu/h	All	86 °F entering water	12.2 EER	ISO 13256-1
	≥17,000 Btu/h and <65,000 Btu/h	All	86 °F entering water	13 EER	
	≥65,000 Btu/h and <135,000 Btu/h	All	86 °F entering water	13 EER	
Water to Air: Ground Water (cooling mode)	<135,000 Btu/h	All	59 °F entering water	18.0 EER	
Brine to Air: Ground Loop (cooling mode)	<135,000 Btu/h	All	77 F entering water	14.1 EER	

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**TABLE 6.8.1 B Electrically Operated Unitary and Applied Heat Pumps—  
Minimum Efficiency Requirements (continued)**

Equipment Type	Size Category	Heating Section Type	Sub-Category or Rating Condition	Minimum Efficiency <sup>a</sup>	Test Procedure <sup>b</sup>
Water to Water: Water Loop (cooling mode)	<135,000 Btu/h	All	86 °F entering water	10.6 EER	
Water to Water: Ground Water (Cooling Mode)	<135,000 Btu/h	All	59 °F entering water	16.3 EER	ISO-13256-2
Brine to Water: Ground Loop (cooling mode)	<135,000 Btu/h	All	77 °F entering water	12.1 EER	
Air cooled (heating mode)	<65,000 Btu/h <sup>eb</sup>	–	Split System	7.7 HSPF	AHRI 210/240
		–	Single Package	7.7 HSPF	
Through-the-wall, (air cooled, heating mode)	≤30,000 Btu/h <sup>b</sup> (cooling capacity)	–	Split System	7.4 HSPF	
		–	Single Package	7.4 HSPF	
Air Cooled (Heating Mode)	≥65,000 Btu/h and <135,000 Btu/h (Cooling Capacity)	–	47°F db/43°F wb Outdoor Air	3.3 COP	AHRI 340/360
		–	17°F db/15°F wb Outdoor Air	2.25 COP	
	≥135,000 Btu/h (Cooling Capacity)	–	47°F db/43°F wb Outdoor Air	3.2 COP	
		–	17°F db/15°F wb Outdoor Air	2.05 COP	
Water to Air: Water Loop (heating mode)	<135,000 Btu/h (cooling capacity)	–	68 °F entering water	4.3 COP	
Water to Air: Ground Water (heating mode)	<135,000 Btu/h (cooling capacity)	–	50 °F entering water	3.7 COP	ISO 13256-1
Brine to Air: Ground Loop (heating mode)	<135,000 Btu/h (cooling capacity)	–	32 °F entering fluid	3.2 COP	
Water to Water: Water Loop (heating mode)	<135,000 Btu/h (cooling capacity)	–	68 °F entering water	3.7 COP	
Water to Water: Ground Water (heating mode)	<135,000 Btu/h (cooling capacity)	–	50 °F entering water	3.1 COP	ISO 13256-2
Brine to Water: Ground Loop (heating mode)	<135,000 Btu/h (cooling capacity)	–	32 °F entering fluid	2.5 COP	

<sup>a</sup> Section 12 contains a complete specification of the referenced test procedure, including the reference year version of the test procedure<sup>b</sup> Single phase, air cooled air conditioners <65,000 Btu/hr are regulated by NAECA, SEER values are those set by NAECA



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## FOREWORD

*The purpose of this proposed addendum is to allow laboratory designs that incorporate strategies to reduce peak airflows and minimum unoccupied airflows to document energy savings associated with reduced outside air volumes.*

*Laboratory systems are often required to be 100% outside air by the rating authority or accreditation standards. Currently, the standard requires ventilation rates for the baseline to be the same as the proposed. Rating authorities interpret this to mean that, in the case where baseline airflow is greater than the proposed design, the baseline system is to be modeled as a recirculating air system. In order to provide credit to proposed design systems that have lower peak design airflow, the baseline is allowed to vary from the proposed.*

*In addition, the current standard requires baseline minimum airflows in laboratory spaces to be the largest of 50% of zone peak air flow, the minimum outdoor air flow rate, or the air flow rate required to comply with applicable codes or accreditation standards. Where owners install systems and controls that reduce laboratory airflows below these minimum thresholds, the baseline is required to be modeled as a recirculating system, and the proposed design is not credited with savings associated with reduced outside air conditioning.*

*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 cn to 90.1-2010

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*Revise the Standard as follows*

**G3.1.2.6 Ventilation.** *Minimum ventilation system outdoor air intake flow shall be the same for the proposed and baseline building designs.*

### Exceptions:

**d.** For baseline systems serving only laboratory spaces that are prohibited from recirculating return air by code or accreditation standards, the baseline system shall be modeled as 100% outside air.



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to ANSI/ASHRAE/IES Standard 90.1-2010**

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## FOREWORD

*Table 9.5.1 has been modified for the following purpose:*

*LPDs have been adjusted to account for changes to recommended light levels as published in the new, 10<sup>th</sup> Edition of the IES Lighting Handbook. Some values have gone up while others have gone down. An expanded data set with 56% additional representative buildings was used to develop the Building Area LPDs.*

*As an average, the changed LPDs dropped 5%.*

***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 co to ASHRAE 90.1-2010

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*Revise Table 9.5.1 as follows (IP Units)*

**TABLE 9.5.1 Lighting Power Densities  
 Using the Building Area Method**

Building Area Type <sup>a</sup>	LPD (W/ft <sup>2</sup> )	
	Automotive facility	<del>0.82</del>
Convention center	<del>1.08</del>	<u>1.01</u>
Courthouse	<del>1.05</del>	<u>1.01</u>
Dining: bar lounge/leisure	<del>0.99</del>	<u>1.01</u>
Dining: cafeteria/fast food	<del>0.90</del>	<u>0.90</u>
Dining: family	<del>0.89</del>	<u>0.95</u>
Dormitory	<del>0.61</del>	<u>0.57</u>
Exercise center	<del>0.88</del>	<u>0.84</u>
Fire station	<del>0.71</del>	<u>0.67</u>

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Gymnasium	<del>1.00</del>	<u>0.94</u>
Health-care clinic	<del>0.87</del>	<u>0.90</u>
Hospital	<del>1.21</del>	<u>1.05</u>
Hotel	<del>1.00</del>	<u>0.58</u>
Library	<del>1.18</del>	<u>1.19</u>
Manufacturing facility	<del>1.11</del>	<u>1.46</u>
Motel	<del>0.88</del>	<u>0.56</u>
Motion picture theater	<del>0.83</del>	<u>0.76</u>
Multifamily	<del>0.60</del>	<u>0.51</u>
Museum	<del>1.06</del>	<u>1.02</u>
Office	<del>0.90</del>	<u>0.82</u>
Parking garage	<del>0.25</del>	<u>0.21</u>
Penitentiary	<del>0.97</del>	<u>0.81</u>
Performing arts theater	<del>1.39</del>	<u>1.39</u>
Police station	<del>0.96</del>	<u>0.87</u>
Post office	<del>0.87</del>	<u>0.87</u>
Religious building	<del>1.05</del>	<u>1.00</u>
Retail	<del>1.40</del>	<u>1.26</u>
School/university	<del>0.99</del>	<u>0.87</u>
Sports arena	<del>0.78</del>	<u>0.91</u>
Town hall	<del>0.92</del>	<u>0.89</u>
Transportation	<del>0.77</del>	<u>0.70</u>
Warehouse	<del>0.66</del>	<u>0.66</u>
Workshop	<del>1.20</del>	<u>1.19</u>

- a. In cases where both a general building area type and a specific building area type are listed, the specific building area type shall apply.



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*SI version*

**TABLE 9.5.1 Lighting Power Densities  
 Using the Building Area Method**

Building Area Type <sup>a</sup>	LPD (W/M <sup>2</sup> )	
	Automotive facility	8.8
Convention center	11.6	<u>10.9</u>
Courthouse	11.3	<u>10.9</u>
Dining: bar lounge/leisure	10.7	<u>10.9</u>
Dining: cafeteria/fast food	9.7	<u>9.7</u>
Dining: family	9.6	<u>10.2</u>
Dormitory	6.6	<u>6.1</u>
Exercise center	9.5	<u>9.0</u>
Fire station	7.6	<u>7.2</u>
Gymnasium	10.8	<u>10.1</u>
Health-care clinic	9.4	<u>11.3</u>
Hospital	13.0	<u>10.8</u>
Hotel	10.8	<u>6.2</u>
Library	12.7	<u>12.8</u>
Manufacturing facility	11.9	<u>15.7</u>
Motel	9.5	<u>6.0</u>
Motion picture theater	8.9	<u>8.2</u>
Multifamily	6.5	<u>5.5</u>
Museum	11.4	<u>11.0</u>
Office	9.7	<u>8.8</u>
Parking garage	2.7	<u>2.3</u>
Penitentiary	10.4	<u>8.7</u>
Performing arts theater	15.0	<u>14.9</u>
Police station	10.3	<u>9.4</u>
Post office	9.4	<u>9.4</u>
Religious building	11.3	<u>10.8</u>
Retail	15.1	<u>13.5</u>
School/university	10.7	<u>9.4</u>
Sports arena	8.4	<u>9.8</u>

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Town hall	<del>9.9</del>	<u>9.6</u>
Transportation	<del>8.3</del>	<u>7.5</u>
Warehouse	<del>7.1</del>	<u>7.1</u>
Workshop	<del>12.9</del>	<u>12.8</u>

- a. In cases where both a general building area type and a specific building area type are listed, the specific building area type shall apply.



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to ANSI/ASHRAE/IES Standard 90.1-2010**

**Public Review Draft**

**Proposed Addendum cp to  
Standard 90.1-2010, *Energy  
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**First Public Review (October 2012)  
(Draft shows Proposed Changes to Current Standard)**

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## FOREWORD

*This revision corrects a value in table 5-5 for steel joist floors that was not correctly edited when the 4 public review drafts of addenda bb were being processed.*

*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 cp to 90.1-2010

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*Revise the Standard as follows (IP and SI Units)*

**Table 5.5-3 Building Envelope Requirements For Climate Zone 3 (A,B,C) (IP)\***

OPAQUE ELEMENTS	NONRESIDENTIAL		RESIDENTIAL		SEMIHEATED	
	Assembly Maximum	Insulation Min. R –Value	Assembly Maximum	Insulation Min. R –Value	Assembly Maximum	Insulation Min. R –Value
<i>Floors</i>						
Mass	U-0.074 <u>0.038</u>	R-10 c.i. <u>R-30</u>	U-0.074	R-10 c.i.	U-0.137	R-4.2 c.i.
Steel Joist	<u>U-0.052</u>	<u>R-19</u>	U-0.032	R-38	U-0.052	R-19
Wood Framed and Other	U-0.033	R-30	U-0.033	R-30	U-0.051	R-19

(SI Units)

<i>Floors</i>						
Mass	U-0.420 <u>0.214</u>	R-1.8 c.i. <u>R-5.3</u>	U-0.420	R-1.8 c.i.	U-0.780	R-0.7 c.i.
Steel Joist	<u>U-0.296</u>	<u>R-3.3</u>	U-0.183	R-6.7	U-0.296	R-3.3
Wood Framed and Other	U-0.188	R-5.3	U-0.188	R-5.3	U-0.288	R-3.3



**BSR/ASHRAE/IES Addendum cr  
to ANSI/ASHRAE/IES Standard 90.1-2010**

**Public Review Draft**

**Proposed Addendum cr to  
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Standard for Buildings Except  
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## FOREWORD

*Table 9.6.1 has been modified for the following purposes:*

- *Corrected the required light level for hospital corridors to 30 fc average to address needs for hazmat cleanup. This changes the Hospital corridor LPD from 0.79 to 0.99.*
- *Corrected the assisted living dining space LPD model to the appropriate RP-28 light level of 50 fc which changes the LPD from 1.90 to 2.65.*
- *Corrected the retail sales space because the previous value was based on an average of 6 retail space types instead of the original 4 that are appropriate for the typical retail value. This changes the sales area value from 1.59 to 1.44.*
- *Developed a new LPD to address very small storage spaces where the small LPD allowance is not sufficient to provide minimum lighting equipment. This creates a value of 1.24.*
- *Revised the footnote that identifies what facilities can get the higher assisted living LPDs to restrict to only those that it was developed for and added reference.*
- *Modified the assisted living recreation room space type to include common living rooms.*

***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 cr to 90.1-2010

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BSR/ASHRAE/IES Addendum or to ANSI/ASHRAE/IES Standard 90.1-2010, *Energy Standard for Buildings Except Low-Rise Residential Buildings*  
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Modify Table 9.6.1 as follows:

<b>TABLE 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method</b>		
<b>Common Space Types<sup>1</sup></b>	<b>LPD watts/sq.ft</b>	<b>RCR Threshold</b>
<b>Corridor<sup>2</sup></b>		
... in a hospital	<del>0.79</del> 0.99	Width < 8'
<b>Dining Area</b>		
... in an Assisted Living Facility (and used primarily by residents) <sup>3</sup>	<del>1.90</del> 2.65	<u>4</u>
<b>Sales Area<sup>4</sup></b>	<del>1.59</del> 1.44	6
<b>Storage Room</b>		
... that is $\geq 50$ sqft	0.63	6
... that is $< 50$ sqft	<u>1.24</u>	<u>6</u>
<p>1 - In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply</p> <p>2 - In corridors, the extra LPD allowance is permitted when the width of the corridor is less than 8' and is not based on the RCR</p> <p>3 - An 'Assisted Living Facility' is a facility that is licensed by local/state authorities for either senior care or people with special visual needs and designed to comply with the requirements of ANSI/IES RP-28. <del>An 'Assisted Living Facility' is a residential facility, for people with special needs or disabilities, that provides help with everyday tasks such as bathing, dressing, and taking medication.</del></p> <p>4 - For accent lighting, see Section 9.6.2(b)</p>		
<b>Building Type Specific Space Types</b>	<b>LPD watts/sq.ft</b>	<b>RCR Threshold</b>
<b>Assisted Living Facility<sup>3</sup></b>		
... in a recreation room/common living room (used primarily by residents)	<u>2.41</u>	<u>6</u>

Add the following reference to Section 12 (IP and SI Units)

**Illuminating Engineering Society  
(IES)**

**120 Wall street, Floor 17**

**New York, NY 10005-4001**

**ANSI/IES RP-28-2007**

**Lighting and The Visual Environment for Senior Living**

BSR/ASHRAE/IES/USGBC Addendum  
b to ANSI/ASHRAE/USGBC/IES  
Standard 189.1-2011

# Public Review Draft

## Proposed Addendum b to Standard 189.1-2011 Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

Second Public Review (Independent Substantive Change) (February 2013) (Draft Shows Proposed Changes to Current Standard)

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## FOREWORD

*The purpose of this ISC to add some clarification to the requirements proposed by addendum b on flooring systems.*

**Note to Reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the previous draft are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.**

## Addendum b ISC to 189.1-2011

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### *Modify Section 8.3.1.5 Building Entrances as follows:*

**8.3.1.5 Building Entrances.** All *building entrances* shall employ an entry way floor mat system comprising a scraper surface, an absorption surface, and a finishing surface in that order in the direction of travel entering the building and in accordance with Sections 8.3.1.5.1, 8.3.1.5.2 and 8.3.1.5.3.. Each surface shall be at least as wide as the entrance. The length shall be measured in the primary direction of travel.

#### **Exceptions:**

1. Entrances to individual *dwelling units*.
2. Entrances that ~~use~~ employ an entryway floor system mat, with any surface that is not less than 4 feet (1.3 m) in length, to provide access to spaces that are less than 3000 ft<sup>2</sup> (300 m<sup>2</sup>) in area and that are not used as a pass-thru to other parts of the building.
3. Doors, the purpose of which is to meet code requirements for means of egress and not entry to the building.
4. Entrances that are locked for use by limited authorized personnel.

#### **8.3.1.5.1 Scraper Surface.** The scraper surface:

- a. Shall be immediately outside, inside or spanning the entry.
- b. Shall be a minimum of 3 ft (1 m) long.
- c. Shall be constructed using materials that ~~can~~ scrape away snow, dirt and debris.

#### **8.3.1.5.2 Absorption Surface.** The absorption surface:

- a. Shall be inside.
- b. Shall be a minimum of 3 ft (1 m) long

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Second Public Review Draft (Independent Substantive Change).

c. Shall be constructed using materials that perform both a scraping action and a moisture wicking action.

**8.3.1.5.3 Finishing Surface.** The finishing surface:

- a. Shall be a minimum of 4 ft (1.2 m) long.
- b. Shall be constructed using materials that capture particles and moisture.

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z to ANSI/ASHRAE/USGBC/IES  
Standard 189.1-2011

# Public Review Draft

## Proposed Addendum z to Standard 189.1-2011 Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

Third Public Review (Independent Substantive  
Change - February 2012) (Draft Shows Proposed  
Changes to Current Standard)

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## **FOREWORD**

*This addendum adds new requirements in Table C-16 in Appendix C, which covers efficiency requirements for commercial refrigeration equipment. The current Table C-13 for commercial refrigerators and freezers remains unchanged.*

*The second public review version of the addendum added the requirements for open display cases, which were not allowed in the first public review draft. It also clarifies the requirements for field installed covers, curtains or doors on open display cases. Finally, it includes changes to section 7.4.7.4, which were not included in the first public review version of the addendum.*

*This ISC to the second public review version corrects the values listed for VOP.RC.L and HZO.RC.L products as listed in the table and eliminates the duplicate requirements for covers for open display cases in 7.4.7.4.*

***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. Only the changes for the ISC to the second public review are shown. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.***

***Only the changes made to the first public review are shown in strikethrough and underline.***

## **Addendum – z to 189.1-2009**

### **7.4.7.4 Commercial Refrigerators and , Freezers, and Clothes Washers**

- a. Commercial refrigerators and freezers shall comply with the minimum efficiencies in Table C-13 and C-16 in Normative Appendix C. Open refrigerated display cases shall be covered using field installed strips, curtains, or doors. Lighting loads, including all power supplies or ballasts, for commercial reach-in refrigerator/freezer display cases shall not exceed 42 watts per door for case doors up to 5 ft (1.5 m) in height and 46 watts per door for case doors greater than 5 ft (1.5 m) in height.
- b. Commercial clothes washers shall comply with the minimum efficiencies in Table C-14 in Normative Appendix C.

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*Add Table C-16 to Appendix C as follows:*

BSR/ASHRAE/USGBC/IES Addendum z to ANSI/ASHRAE/USGBC/IES Standard 189.1-2009,  
Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings  
Third Public Review Draft

**Table C-16 Commercial Refrigeration Minimum Efficiency Requirements (IP Units)**

Equipment Type				Energy Use Limits (kWh/day) as of 1/1/2012 <sup>ab</sup>	Test Procedure
Equipment Class <sup>c</sup>	Family Code	Operating Mode	Rating Temperature		
VOP.RC.M	Vertical Open	Remote Condensing	Medium Temperature	$0.82 \times TDA + 4.07^d$	AHRI 1200
SVO.RC.M	Semivertical Open	Remote Condensing	Medium Temperature	$0.83 \times TDA + 3.18^d$	
HZO.RC.M	Horizontal Open	Remote Condensing	Medium Temperature	$0.35 \times TDA + 2.88^u$	
VOP.RC.L	Vertical Open	Remote Condensing	Low Temperature	<del><math>0.35 \times TDA + 2.88</math></del> $2.27 \times TDA + 6.85^d$	
HZO.RC.L	Horizontal Open	Remote Condensing	Low Temperature	<del><math>2.27 \times TDA + 6.85</math></del> $0.57 \times TDA + 6.88^d$	
VCT.RC.M	Vertical Transparent Door	Remote Condensing	Medium Temperature	$0.22 \times TDA + 1.95$	
VCT.RC.L	Vertical Transparent Door	Remote Condensing	Low Temperature	$0.56 \times TDA + 2.61$	
SOC.RC.M	Service Over Counter	Remote Condensing	Medium Temperature	$0.51 \times TDA + 0.11$	
VOP.SC.M	Vertical Open	Self Contained	Medium Temperature	$1.74 \times TDA + 4.71^d$	
SVO.SC.M	Semivertical Open	Self Contained	Medium Temperature	$1.73 \times TDA + 4.59^d$	
HZO.SC.M	Horizontal Open	Self Contained	Medium Temperature	$0.77 \times TDA + 5.55^u$	
HZO.SC.L	Horizontal Open	Self Contained	Low Temperature	$1.92 \times TDA + 7.08^u$	
VCT.SC.I	Vertical Transparent Door	Self Contained	Ice Cream	$0.67 \times TDA + 3.29$	
VCS.SC.I	Vertical Solid Door	Self Contained	Ice Cream	$0.38 \times V + 0.88$	
HCT.SC.I	Horizontal Transparent Door	Self Contained	Ice Cream	$0.56 \times TDA + 0.43$	
SVO.RC.L	Semivertical Open	Remote Condensing	Low Temperature	$2.27 \times TDA + 6.85^d$	
VOP.RC.I	Vertical Open	Remote Condensing	Ice Cream	$2.89 \times TDA + 8.7^d$	
SVO.RC.I	Semivertical Open	Remote Condensing	Ice Cream	$2.89 \times TDA + 8.7^d$	
HZO.RC.I	Horizontal Open	Remote Condensing	Ice Cream	$0.72 \times TDA + 8.74^d$	
VCT.RC.I	Vertical Transparent Door	Remote Condensing	Ice Cream	$0.66 \times TDA + 3.05$	
HCT.RC.M	Horizontal Transparent Door	Remote Condensing	Medium Temperature	$0.16 \times TDA + 0.13$	
HCT.RC.L	Horizontal Transparent Door	Remote Condensing	Low Temperature	$0.34 \times TDA + 0.26$	
HCT.RC.I	Horizontal Transparent Door	Remote Condensing	Ice Cream	$0.4 \times TDA + 0.31$	
VCS.RC.M	Vertical Solid Door	Remote Condensing	Medium Temperature	$0.11 \times V + 0.26$	
VCS.RC.L	Vertical Solid Door	Remote Condensing	Low Temperature	$0.23 \times V + 0.54$	
VCS.RC.I	Vertical Solid Door	Remote Condensing	Ice Cream	$0.27 \times V + 0.63$	
HCS.RC.M	Horizontal Solid Door	Remote Condensing	Medium Temperature	$0.11 \times V + 0.26$	
HCS.RC.L	Horizontal Solid Door	Remote Condensing	Low Temperature	$0.23 \times V + 0.54$	
HCS.RC.I	Horizontal Solid Door	Remote Condensing	Ice Cream	$0.27 \times V + 0.63$	

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**Table C-16 Commercial Refrigeration Minimum Efficiency Requirements (IP Units)**

Equipment Type				Energy Use Limits (kWh/day) as of 1/1/2012 <sup>ab</sup>	Test Procedure
Equipment Class <sup>c</sup>	Family Code	Operating Mode	Rating Temperature		
SOC.RC.L	Service Over Counter	Remote Condensing	Low Temperature	$1.08 \times \text{TDA} + 0.22$	
SOC.RC.I	Service Over Counter	Remote Condensing	Ice Cream	$1.26 \times \text{TDA} + 0.26$	
VOP.SC.L	Vertical Open	Self Contained	Low Temperature	$4.37 \times \text{TDA} + 11.82^d$	
VOP.SC.I	Vertical Open	Self Contained	Ice Cream	$5.55 \times \text{TDA} + 15.02^d$	
SVO.SC.L	Semivertical Open	Self Contained	Low Temperature	$4.34 \times \text{TDA} + 11.51^d$	
SVO.SC.I	Semivertical Open	Self Contained	Ice Cream	$5.52 \times \text{TDA} + 14.63^d$	
HZO.SC.I	Horizontal Open	Self Contained	Ice Cream	$2.44 \times \text{TDA} + 9.0^d$	
SOC.SC.I	Service Over Counter	Self Contained	Ice Cream	$1.76 \times \text{TDA} + 0.36$	
HCS.SC.I	Horizontal Solid Door	Self Contained	Ice Cream	$0.38 \times V + 0.88$	

<sup>a</sup> V (ft<sup>3</sup>) is the volume of the case, as measured in AHRI Standard 1200, Appendix C

<sup>b</sup> TDA (ft<sup>2</sup>) is the total display area of the case, as measured in the AHRI Standard 1200, Appendix D

<sup>c</sup> Equipment class designations consist of a combination (in sequential order separated by periods (AAA).(BB).(C) of:

(AAA) An equipment family code (VOP=vertical open, SVO=semi-vertical open, HZO=horizontal open, VCT=vertical transparent doors, VCS=vertical solid doors, HCT=horizontal transparent doors, HCS=horizontal solid doors, or SOC=service over counter);

(BB) An operating mode code (RC=remote condensing or SC=self contained); and

(CC) A rating temperature code (M=medium temperature (38 °F), L=low temperature (0 °F), or I=ice-cream temperature (15 °F)). For example, “VOP.RC.M” refers to the “vertical open, remote condensing, medium temperature” equipment class.

<sup>d</sup> Open refrigerated display cases shall be covered by field installed strips, curtains, or doors.

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**Table C-16 Commercial Refrigeration Minimum Efficiency Requirements (SI Units)**

Equipment Type				Energy Use Limits (kWh/day) as of 1/1/2012 <sup>ab</sup>	Test Procedure
Equipment Class <sup>c</sup>	Family Code	Operating Mode	Rating Temperature		
VOP.RC.M	Vertical Open	Remote Condensing	Medium Temperature	$8.83 \times \text{TDA} + 4.07^d$	AHRI 1200
SVO.RC.M	Semivertical Open	Remote Condensing	Medium Temperature	$8.93 \times \text{TDA} + 3.18^d$	
HZO.RC.M	Horizontal Open	Remote Condensing	Medium Temperature	$3.77 \times \text{TDA} + 2.88^d$	
VOP.RC.L	Vertical Open	Remote Condensing	Low Temperature	<del><math>3.77 \times \text{TDA} + 2.88</math></del> $24.43 \times \text{TDA} + 6.85^d$	
HZO.RC.L	Horizontal Open	Remote Condensing	Low Temperature	<del><math>24.43 \times \text{TDA} + 6.85</math></del> $6.14 \times \text{TDA} + 6.88^d$	
VCT.RC.M	Vertical Transparent Door	Remote Condensing	Medium Temperature	$2.37 \text{ TDA} + 1.95$	
VCT.RC.L	Vertical Transparent Door	Remote Condensing	Low Temperature	$6.03 \times \text{TDA} + 2.61$	
SOC.RC.M	Service Over Counter	Remote Condensing	Medium Temperature	$5.49 \times \text{TDA} + 0.11$	
VOP.SC.M	Vertical Open	Self Contained	Medium Temperature	$18.73 \times \text{TDA} + 4.71^d$	
SVO.SC.M	Semivertical Open	Self Contained	Medium Temperature	$18.62 \times \text{TDA} + 4.59^d$	
HZO.SC.M	Horizontal Open	Self Contained	Medium Temperature	$8.29 \times \text{TDA} + 5.55^d$	
HZO.SC.L	Horizontal Open	Self Contained	Low Temperature	$20.67 \times \text{TDA} + 7.08^d$	
VCT.SC.I	Vertical Transparent Door	Self Contained	Ice Cream	$7.21 \times \text{TDA} + 3.29$	
VCS.SC.I	Vertical Solid Door	Self Contained	Ice Cream	$13.42 \times \text{V} + 0.88$	
HCT.SC.I	Horizontal Transparent Door	Self Contained	Ice Cream	$6.03 \times \text{TDA} + 0.43$	
SVO.RC.L	Semivertical Open	Remote Condensing	Low Temperature	$24.43 \times \text{TDA} + 6.85^d$	
VOP.RC.I	Vertical Open	Remote Condensing	Ice Cream	$31.10 \times \text{TDA} + 8.7^d$	
SVO.RC.I	Semivertical Open	Remote Condensing	Ice Cream	$31.11 \times \text{TDA} + 8.7^d$	
HZO.RC.I	Horizontal Open	Remote Condensing	Ice Cream	$7.75 \times \text{TDA} + 8.74^d$	
VCT.RC.I	Vertical Transparent Door	Remote Condensing	Ice Cream	$7.10 \times \text{TDA} + 3.05$	
HCT.RC.M	Horizontal Transparent Door	Remote Condensing	Medium Temperature	$1.72 \times \text{TDA} + 0.13$	
HCT.RC.L	Horizontal Transparent Door	Remote Condensing	Low Temperature	$3.66 \times \text{TDA} + 0.26$	
HCT.RC.I	Horizontal Transparent Door	Remote Condensing	Ice Cream	$4.31 \times \text{TDA} + 0.31$	
VCS.RC.M	Vertical Solid Door	Remote Condensing	Medium Temperature	$3.88 \times \text{V} + 0.26$	
VCS.RC.L	Vertical Solid Door	Remote Condensing	Low Temperature	$8.12 \times \text{V} + 0.54$	
VCS.RC.I	Vertical Solid Door	Remote Condensing	Ice Cream	$9.53 \times \text{V} + 0.63$	
HCS.RC.M	Horizontal Solid Door	Remote Condensing	Medium Temperature	$3.88 \times \text{V} + 0.26$	
HCS.RC.L	Horizontal Solid Door	Remote Condensing	Low Temperature	$8.12 \times \text{V} + 0.54$	
HCS.RC.I	Horizontal Solid Door	Remote Condensing	Ice Cream	$9.53 \times \text{V} + 0.63$	

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**Table C-16 Commercial Refrigeration Minimum Efficiency Requirements (SI Units)**

Equipment Type				Energy Use Limits (kWh/day) as of 1/1/2012 <sup>ab</sup>	Test Procedure
Equipment Class <sup>c</sup>	Family Code	Operating Mode	Rating Temperature		
SOC.RC.L	Service Over Counter	Remote Condensing	Low Temperature	$11.63 \times \text{TDA} + 0.22$	
SOC.RC.I	Service Over Counter	Remote Condensing	Ice Cream	$13.56 \times \text{TDA} + 0.26$	
VOP.SC.L	Vertical Open	Self Contained	Low Temperature	$4.37 \times \text{TDA} + 11.82^d$	
VOP.SC.I	Vertical Open	Self Contained	Ice Cream	$5.55 \times \text{TDA} + 15.02^d$	
SVO.SC.L	Semivertical Open	Self Contained	Low Temperature	$4.34 \times \text{TDA} + 11.51^d$	
SVO.SC.I	Semivertical Open	Self Contained	Ice Cream	$5.52 \times \text{TDA} + 14.63^d$	
HZO.SC.I	Horizontal Open	Self Contained	Ice Cream	$2.44 \times \text{TDA} + 9.0^d$	
SOC.SC.I	Service Over Counter	Self Contained	Ice Cream	$18.94 \times \text{TDA} + 0.36$	
HCS.SC.I	Horizontal Solid Door	Self Contained	Ice Cream	$13.42 \times V + 0.88$	

<sup>a</sup> V (m<sup>3</sup>) is the volume of the case, as measured in AHRI Standard 1200, Appendix C

<sup>b</sup> TDA (m<sup>2</sup>) is the total display area of the case, as measured in the AHRI Standard 1200, Appendix D

<sup>c</sup> Equipment class designations consist of a combination (in sequential order separated by periods (AAA).(BB).(C) of:

(AAA) An equipment family code (VOP=vertical open, SVO=semi-vertical open, HZO=horizontal open, VCT=vertical transparent doors, VCS=vertical solid doors, HCT=horizontal transparent doors, HCS=horizontal solid doors, or SOC=service over counter);

(BB) An operating mode code (RC=remote condensing or SC=self contained); and

(CC) A rating temperature code (M=medium temperature (3 °C), L=low temperature (-18 °C), or I=ice-cream temperature (-9 °C)). For example, “VOP.RC.M” refers to the “vertical open, remote condensing, medium temperature” equipment class.

<sup>d</sup> Open refrigerated display cases shall be covered by field installed strips, curtains, or doors



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*2- Add reference in chapter 11 under Air-Conditioning, Heating, and Refrigeration Institute*

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**Air-Conditioning, Heating, and Refrigeration Institute (AHRI)**  
**2111 Wilson Blvd, Suite 500**  
**Arlington, VA 22201**  
**1-703-524-8800; [www.ahrinet.org](http://www.ahrinet.org)**

AHRI1200-2010

Performance Rating of Commercial Refrigerated Display  
Merchandisers and Storage Cabinets

Appendix C

BSR/ASHRAE/IES/USGBC Addendum r  
to ANSI/ASHRAE/USGBC/IES Standard  
189.1-2011

## Public Review Draft

### Proposed Addendum r to Standard 189.1-2011 Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (February 2012) (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 addendum, go to the ASHRAE web site at <http://www.ashrae.org/standards-research-technology/public-review-drafts> and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE web site) remains in effect.

The current edition of any standard may be purchased from the ASHRAE Bookstore @ <http://www.ashrae.org> or by calling 404-636-8400 or 1-800-527-4723 (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 web site @ <http://www/ashrae.org>.

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AMERICAN SOCIETY OF HEATING, REFRIGERATING  
AND AIR-CONDITIONING ENGINEERS, INC. 1791 Tullie Circle, NE  
Atlanta GA 30329-2305



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ENGINEERING SOCIETY

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First Public Review Draft.

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

## FOREWORD

The changes to section 8.3.1 address the fact that this standard currently does not exclude health care facilities from its scope, while Standard 62.1 does. Therefore, our reference to Standard 62.1 for IAQ provisions does not provide any requirements for healthcare facilities. This addendum adds references to Standard 170, Ventilation of Health Care Facilities, to fill this gap.

***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 r to 189.1-2011

*Modify section 8.3.1 as follows:*

### 8.3 Mandatory Provisions

**8.3.1 Indoor Air Quality.** The building shall comply with Sections 4 through 7 of ANSI/ASHRAE Standard 62.1 with the following modifications and additions. Health care facilities shall comply with the requirements of ANSI/ASHRAE/ASHE Standard 170. When a requirement is provided below, this supersedes the requirements in ANSI/ASHRAE Standard 62.1, or ANSI/ASHRAE/ASHE 170, whichever is applicable to the building

**8.3.1.1 Minimum Ventilation Rates.** The Ventilation Rate Procedure of ANSI/ASHRAE Standard 62.1 shall be used. In health care facilities, the minimum outdoor airflow rates required by ANSI/ASHRAE/ASHE Standard 170 shall apply.

#### 8.3.1.3 Filtration and Air Cleaner Requirements

a. **Particulate Matter** The following requirements shall apply in all buildings.

Exception: In health care facilities, the particulate filter requirements of ANSI/ASHRAE/ASHE Standard 170 shall apply.

- 1. Wetted Surfaces.** Particulate matter filters or air cleaners having a minimum efficiency reporting value (MERV) of not less than 8 when rated in accordance with ANSI/ASHRAE Standard 52.2 shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to an occupiable space ~~in accordance with Section 5.8 of ANSI/ASHRAE Standard 62.1 shall have a MERV of not~~

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- ~~less than 8.~~ These requirements supersede the requirements in Section 5.8 of ANSI/ASHRAE Standard 62.1.
2. **Particulate Matter Smaller than 10 Micrometers (PM10).** Particulate matter filters or air cleaners ~~shall be provided to reduce PM10 in outdoor intake~~ in accordance with 6.2.1.1 of ANSI/ASHRAE Standard 62.1 with the following modification. Such filters or air cleaners shall have a MERV of not less than 8 when rated in accordance with ANSI/ASHRAE Standard 52.2.
  3. **Particulate Matter Smaller than 2.5 Micrometers (PM2.5).** Particulate matter filters or air cleaners ~~shall be provided to reduce PM2.5 in outdoor intake air~~ in accordance with Section 6.2.1.2 of ANSI/ASHRAE Standard 62.1 with the following modification. Such filters or air cleaners shall have a MERV of not less than 13 when rated in accordance with ANSI/ASHRAE Standard 52.2.
- b. **Ozone.** ~~In addition to Section 6.2.1.3 of ANSI/ASHRAE Standard 62.1, Air cleaning devices for ozone shall be provided when the for buildings is located in an area that is designated "non-attainment" with the National Ambient Air Quality Standards (NAAQS) for ozone as determined by the AHJ.; Such air-cleaning devices shall have having an ozone removal efficiency of no less than 40% where installed, operated and maintained in accordance with the manufacturer recommendations. Such air-cleaning devices shall be operated whenever the outdoor ozone level is expected to exceed the NAAQS. the efficiency specified in Section 6.2.1.3 of ANSI/ASHRAE Standard 62.1 shall be provided to clean outdoor air prior to its introduction to occupied spaces. This requirement supersedes the requirements of Section 6.2.1.3 of ANSI/ASHRAE Standard 62.1. This requirement applies to all buildings, including health care facilities covered by ANSI/ASHRAE/ASHE Standard 170.~~

Modify section 11 as follows:

## 11. NORMATIVE REFERENCES

Reference	Title	Section
<u>ANSI/ASHRAE/ASHE Standard 170-2008</u>	<u>Ventilation of Health Care Facilities</u>	<u>8.3.1</u>

Proposed amendment to ANSI/ISA-60079-31-2009 is shown in yellow. The text is essentially the same that we had in ANSI/ISA-61241-1-2006 (R2011) and should have been transferred to ANSI/ISA-60079-31.

### 6.1.2 Thermal tests

This test shall be carried out as described in ANSI/ISA-IEC 60079-0 with the test voltages and overload or fault conditions applied as specified in Table 2.

For level of protection “ta” equipment, the requirements of 4.2 apply, and the maximum surface temperature shall be determined with the equipment mounted in accordance with the manufacturer’s instructions, and surrounded on all available surfaces by dust with a layer thickness of at least 500 mm.

For level of protection “tb” equipment, the maximum surface temperature shall be determined with the equipment mounted in accordance with the manufacturer’s instructions with the additional requirement that the apparatus shall be covered with the maximum amount of dust that it can retain.

In all cases, the measurement for the maximum surface temperature shall be determined using a test dust having a thermal conductivity of no more than 0,10 W/(m.K) measured at (100 ± 5) °C.

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## Sustainability Assessment for Wallcovering Products

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### 7.2.2 Fire resistance & Smoke Density

The manufacturer shall receive four points for providing documentation of fire resistance showing that the product performs at or above industry standards as described in NFPA 101. Additionally, the manufacturer can receive two points for demonstrating that the product performs at or above relevant industry standards for smoke density as described in NFPA 101.

The testing to demonstrate compliance to NFPA 101 must be performed at an independent and qualified testing laboratory *that demonstrates a quality program meeting the requirements of ISO Guide 17025, including written test procedures.* The test results at the time of certification that show compliance will remain in place until there is a product or processing change that is significant enough to impact compliance to the standard's requirements.

***Reason: Section 7.2.2 was discussed at the Joint Committee Meeting on October 10, 2011. The additions to these sections were suggested to address Issue Paper 3 – Sections 7.2.1, 7.2.2, 7.3.1, 7.3.2, and 7.3.3, and Product Selection. This section is being rebalotted due to negative comments on the first ballot for this section. The part in italic with grey highlighting has been added to this ballot.***

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**8.2.2.2** The distributor shall receive points for the percent of its revenue from *all of the wallcoverings it distributes in the facility* ~~the specific certified product~~ that it commits to documented programs associated with improving the reclamation rate of its products ~~wallcoverings~~. Points shall be awarded as follows:

- One point for 0.05% of revenue from *all of the wallcoverings distributed in the facility* ~~the specific certified product~~ that is invested (annual average, maximum five-year averaging);
- Two points for 0.10% of revenue from *all of the wallcoverings distributed in the facility* ~~the specific certified product~~ that is invested (annual average, maximum five-year averaging);  
or
- Three points for 0.15% or more of revenue from *all of the wallcoverings distributed in the facility* ~~the specific certified product~~ that is invested (annual average, maximum five-year averaging).

A maximum of three points shall be awarded for ~~Section~~ 8.2.2.2 for the distributor.

Qualifying activities include research and development in materials processing and new product

Tracking Number 342i2r3  
Revision - Sustainability assessment for Wall Coverings Products  
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Issue 2, Draft 3 (November 2012)

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development (using reclaimed materials); purchase and installation of processing equipment to be used wholly or in part for the processing of reclaimed wallcovering materials, including composting grinding equipment; and other quantifiable financial support of post-consumer material collection, processing, manufacturing and distribution activities (including ongoing labor expenses).

***Reason: This section was discussed at the Joint Committee Meeting on October 10, 2011. There was a discussion about making the Distributor sections more focused on the facility operation rather than the product. The wallcoverings may not be in the facility, so it may be more accurate to represent this as all of the wallcoverings a distributor distributes. This section is being reballoted due to negative comments on the first ballot for this section. The parts in italic have been updated since the last balloted language for this section.***

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## BSR/UL 2594, Standard for Safety for Electric Vehicle Supply Equipment

### 1. Proposed First Edition of the Standard for Electric Vehicle Supply Equipment, UL 2594

1.1 This Standard covers conductive electric vehicle (EV) supply equipment ~~input rated a maximum~~ with a primary source voltage of 600 V ac or less, with a frequency of 60 Hz, and intended to provide ac power to an electric vehicle with an on-board charging unit. This Standard covers electric vehicle supply equipment intended for use where ventilation is not required.

1.2 With reference to 1.1, the electric vehicle supply equipment covered by this Standard includes:

- a) Portable EV Cord Sets - Rated 125 Vac maximum, 20 A maximum, ~~cord connected~~, intended for indoor and outdoor use;
- b) Stationary EV Cord Sets - Rated 125 Vac maximum, 20 A maximum, ~~cord connected~~, intended for indoor and outdoor use;
- c) Stationary EV Cord Sets - Rated 250 Vac maximum, 40 A maximum, ~~cord connected~~, intended for indoor use only;
- d) Movable EV Charging Stations - Rated 125 Vac maximum, ~~cord connected~~, intended for indoor and outdoor use;
- e) Movable EV Charging Stations - Rated 250 Vac maximum, 40 A maximum, ~~cord connected~~, intended for indoor use only;
- f) Permanent EV Charging Station - Rated 600 Vac maximum, ~~permanently connected~~, intended for indoor or indoor/outdoor use; or
- g) Permanent EV Power Outlet - Rated 600 Vac maximum, ~~permanently connected~~, intended for indoor or indoor/outdoor use.

EV Power Outlets ~~are intended to provide a receptacle where one did not previously exist.~~

For Mexico, use 127 Vac where 120 or 125 Vac is referenced in this Standard. In Canada and the United States, this does not apply.

1.4 This Standard does not cover cord sets or power supply cords for applications other than EV charging cord sets. For c~~C~~ord sets and power supply cords not covered by this Standard, refer to ~~are covered in Annex A, Ref. No. 2 and No. 3.~~

1.5 With reference to 1.2, this Standard does not cover electric vehicle charging equipment. For EV C~~C~~harging E~~E~~quipment not covered by this Standard, refer to is covered in Annex A, Ref. No. 4.



1.6 This Standard does not cover electric vehicle connectors. For electric vehicle connectors not covered by this Standard, refer to which are covered in Annex A, Ref. No. 5

1.7 This Standard does not cover regular-use power outlets. For regular-use power outlets not covered by this Standard, refer to which are covered in Annex A, Ref. No. 6.

5.3 BONDED (BONDING) - The permanent joining of metallic parts to form an electrically conductive path that provides electrical continuity and the capacity to conduct any current likely to be imposed without a risk of electric shock or fire.

Note: See Figure 11 for an illustration of the terms "grounding" and "bonding" with corresponding terms for Canada and Mexico.

5.4 BONDING JUMPER - A conductor, including a strap or similar part that is used to provide the required electrical conductivity between metal parts required to be electrically connected.

5.5 BRANCH CIRCUIT - The portion of the building wiring system beyond the final overcurrent protective device on the power distribution panel that protects the circuit to the receptacle outlet.

5.23 GROUND - A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth or to some conducting body that serves in place of the earth.

Note: See Figure 11 for an illustration of the terms "grounding" and "bonding" with corresponding terms for Canada and Mexico.

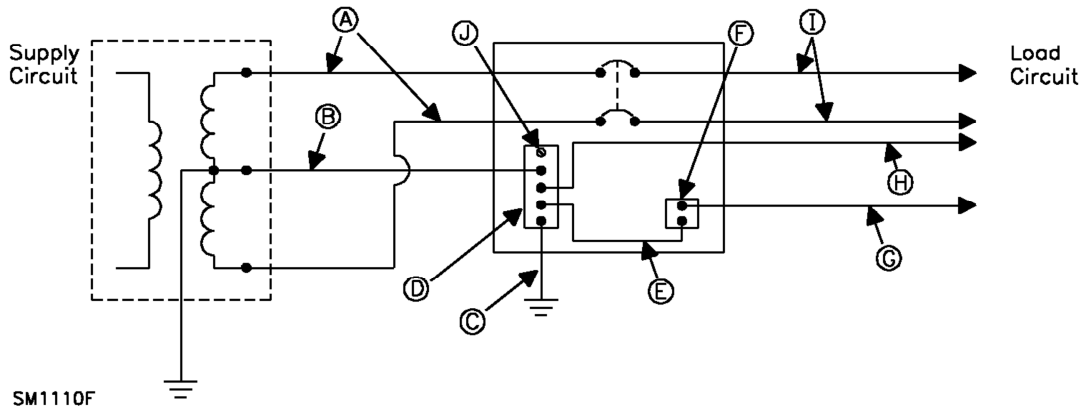
5.24 GROUNDED - Connected to earth or to some conducting body that serves in place of earth.

5.25 GROUNDED CONDUCTOR - A system or circuit conductor that is intentionally grounded.

5.26 GROUNDING CONDUCTOR - The conductor used to connect the non-current-carrying metal parts of equipment, raceways, and other enclosures to the system grounded conductor, the grounding electrode conductor, or both at the service equipment or at the source of a separately derived system.

**(New 14.1 added, existing clauses to be renumbered)**

14.1 The grounding and bonding terms used in this Standard are in accordance with the UL column in Figure 11. The corresponding CSA and ANCE terms are also provided for information.

**Figure 11****Grounding/bonding terms**

Note: This figure is only intended to show the use of terminology it is not intended to represent construction practices.

<u>UL TERMS</u>	<u>CSA TERMS</u>	<u>ANCE TERMS</u>
<u>A- Ungrounded service conductor</u>	<u>Ungrounded service conductor</u>	<u>Conductores de fase de la acometida</u>
<u>B- Grounded service conductor</u>	<u>Grounded service conductor</u>	<u>Conductor de acometida puesto a tierra</u>
<u>C- Grounding electrode conductor</u>	<u>Grounding conductor</u>	<u>Conductor de electrodo de puesta a tierra</u>
<u>D- Insulated neutral bus</u>	<u>Neutral bus</u>	<u>Barra para neutro</u>
<u>E- Bonding jumper</u>	<u>Bonding jumper</u>	<u>Puente de union</u>

<u>F- Ground bus</u>	<u>Bonding bus/bonding connector</u>	<u>Barra para puesta a tierra</u>
<u>G- Equipment grounding conductor</u>	<u>Bonding conductor</u>	<u>Conductor de puesta a tierra del equipo</u>
<u>H- Grounded circuit conductor</u>	<u>Identified circuit conductor</u>	<u>Conductor del circuito puesto a tierra</u>
<u>I- Ungrounded circuit conductor</u>	<u>Ungrounded circuit conductor</u>	<u>Conductores de fase del circuito</u>
<u>J- Screw serving as bonding jumper</u>	<u>Screw serving as bonding jumper</u>	<u>Tornillo que sirve como puente de union</u>

25.2.2 The overcurrent protective device specified in 25.2.1 shall be a circuit breaker, or fuse, or supplementary type, that is either intended for branch circuit use or a supplementary type. Where the protective device consists of a fuse, the device shall be marked in accordance with 75.8.

**(New 28.1.1 added, existing clauses to be renumbered)**

28.1.1 Supplementary protectors shall not be used for overcurrent protection of circuits defined as "branch circuits" as defined in Annex A, Ref. No. 1.

28.1.2 (renumbered 28.1.3) Supplementary overcurrent devices are not required unless specifically stated as such in other parts of this Standard or to reduce the risk of electric shock, fire, or injury to persons. If provided, supplementary overcurrent protection devices may be located at the input, output, or both of the electric vehicle supply equipment.

35.1 Electric vehicle supply equipment provided with an external luminaire shall comply with the requirements specified in 35.2 - 35.4. The luminaire shall comply with the applicable requirements in Annex A, Ref. No. 56.

35.2 Except as indicated in 35.2.1, a luminaire supplied by the same source as the electric vehicle supply equipment shall be provided with a switch rated 20 A minimum on the supply side of the supplementary overcurrent protection. ~~The supplemental overcurrent protection shall be in accordance with 28.2.~~

35.2.1 A switch is not required to be provided if the supplementary overcurrent protection can only be accessed after power is removed or if the access panel, cover, or door, is provided with an interlock.

35.3 A luminaire supplied by a separate source from the electric vehicle supply equipment need not be provided with a switch and supplementary overcurrent protection when the electric vehicle supply equipment is marked in accordance with 75.18.

73.18 In Canada, a power supply that is intended to be permanently secured to a structure and is provided with a supply cord in accordance with Clause 12.1.1.1 shall be marked with the following or equivalent: "THE SUITABILITY OF THE USE OF FLEXIBLE CORD PER CEC IN ACCORDANCE WITH CE CODE, PART I, RULE 4-010 4-012, IS TO BE DETERMINED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION".

**(Clause 77.3 abbreviated to facilitate review - only item (u) is revised)**

77.3 The instructions pertaining to a risk of fire or electric shock shall include those items in the following list that are applicable to the device. The statement "IMPORTANT SAFETY INSTRUCTIONS" or the equivalent shall precede the list, and the statement "SAVE THESE INSTRUCTIONS" or the equivalent shall either precede or follow the list. The word "WARNING" shall be entirely in upper case letters or shall be emphasized to distinguish it from the rest of the text.

**IMPORTANT SAFETY INSTRUCTIONS**

WARNING - When using electric products, basic precautions should always be followed, including the following. This manual contains important instructions for Models \_\_\_\_\_ (blank space is to be filled in with applicable model numbers) that shall be followed during installation, operation and maintenance of the unit. When the instructions are exactly the same for all models, specific model numbers are not required to be specified:

u) Portable EV cord sets not provided with "Extra Hard Usage" flexible cords shall have a statement included in the Instructions, "Not for use in commercial garages", where a COMMERCIAL GARAGE is defined as a facility, or portion of a facility, used for the repair of internal combustion engine vehicles, in which the area may be classified due to vapors of flammable liquids (gasoline) being present".

## BSR/UL 69, Standard for Safety for Electric-Fence Controllers

### 1. Revision to Scope

1.5 These requirements do not cover electric-fence controllers for use with: electrified security fences.

- a) ~~electrified security fences,~~
- b) ~~above ground fences or below buried boundary wire systems for containment of pets, or~~
- e) ~~bird deterrence devices.~~

### 2. Software Managed Outputs

#### 17.5 Software

17.5.1 Circuits that rely on software alone to comply with the ~~performance requirements~~ output limits of Sections 22 and 23 shall comply with UL 60335-1 Annex R (Household appliance software evaluation). ~~the Standard for Automatic Electrical Controls for Household and Similar Use; Part 1: General Requirements, UL 60730-1, including Annex H. The software shall be evaluated for Class B. The supporting electronic hardware shall be evaluated as a Type 2 Action. The output shall not exceed the limits of Sections 22 and 23. References to "clause 19.13 of IEC 60335-1" shall be replaced with "the output limits of Sections 22 and 23" and references to "19.11.2 of IEC 60335-1" shall be replaced with "Section 23.2."~~ The software shall be evaluated for Class C compliance.

Note: In IEC 60335-1, Ed. 5.0, the term "Class C" has changed to "Table R.2." These two terms have the same meaning.

### 3. Addition and Revision of Requirements to Relocate Component Standard References from Appendix A into the Body of the Standard as Component Requirements

2.1 A component of a product covered by this standard shall:

- a) comply with the requirements for that component as indicated in 2.2 - 2.26 2.5, and Sections 5, 10, 13, 14, 18, 20, 22, 23 and 38;
- b) be used in accordance with its rating(s) established for the intended conditions of use;

- c) be used within its established use limitations or conditions of acceptability;
- d) additionally comply with the applicable requirements of this end product standard;  
and
- e) not contain mercury.

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