ANSI STANDARDS ACTION

PUBLISHED WEEKLY BY THE AMERICAN NATIONAL STANDARDS INSTITUTE 25 West 43rd Street, NY, NY 10036

VOL. 45, #6 *February 7, 2014*

Contents

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

ISSN 0038-9633

Comment Deadline: March 9, 2014

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

Addenda

BSR/ASHRAE/USGBC/IES Addendum 189.1w-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 provides specific bicycle parking design requirements.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://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 189.1al-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 revision will match requirements for opaque wall assemblies in Climate Zones 1 through 3 to ANSI/ASHRAE/IES 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://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 189.1bg-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 requirements intended to protect plants, the soil, and water quality, and to increase the habitat for native birds and insects.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://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 189.1bk-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 revision adds a fan-efficiency requirement in 189.1 that is slightly more stringent than the fan-efficiency section included into ANSI/ASHRAE/IES 90.1-2013.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://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 189.1bl-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 updates and expands Table C-13 for commercial refrigerators and freezers to the much broader range of Commercial Refrigeration Equipment.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: https://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 189.1bm-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011)

This addendum adds more building components and clarifies salvaged material requirements in ANSI/ASHRAE/USGBC/IES 189.1-2011, Section 9.4.1.1.

Click here to view these changes in full

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

EOS/ESD (ESD Association, Inc.)

Revision

BSR/ESD S20.20-201x, ESD Association Standard for the Development of an Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices) (revision of ANSI/ESD S20.20-2007)

This document applies to activities that manufacture, process, assemble, install, package, label, service, test, inspect, transport, or otherwise handle electrical or electronic parts, assemblies and equipment susceptible to damage by electrostatic discharges greater than or equal to 100 volts HBM, 200 volts CDM, and 20 volts on isolated charged conductors. Processes designed to handle items that have an ESD sensitivity to lower withstand voltages can still claim compliance to this standard.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Christina Earl, (315) 339-6937, cearl@esda.org

ICC (International Code Council)

Revision

BSR/ICC 600-2013, Standard for Residential Construction in High-Wind Regions (revision of ANSI/ICC 600-2008)

The Standard for Residential Construction in High-Wind Regions will specify prescriptive methodologies of wind resistant design and construction details for buildings and other structures of wood framed, steel framed, concrete, or masonry construction sited in high-wind areas. This standard will provide prescriptive details for walls, floors, roofs, foundations, windows, doors, and other applicable components of construction.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Edward Wirtschoreck, (708) 799-2300, ewirtschoreck@iccsafe.org

NACE (NACE International, the Corrosion Society)

Revision

BSR/NACE Standard MR0103-201x, Materials Resistant to Sulfide Stress Cracking in Corrosive Petroleum Refining Environments (revision of ANSI/NACE Standard MR0103-2012)

This NACE standard defines material requirements for resistance to sulfide stress cracking (SSC) in sour refinery process environments, i.e., environments that contain wet hydrogen sulfide (H2S). It is intended to be utilized by refineries, equipment manufacturers, engineering contractors, and construction contractors. This particular project is to add a new material to the standard.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Everett Bradshaw, (281) 228-6203, Everett.bradshaw@nace.org

NECA (National Electrical Contractors Association)

Revision

BSR/NECA 411-201X, Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS) (revision of ANSI/NECA 411-2006)

This standard describes installation and maintenance procedures for permanently installed, static, three-phase Uninterruptible Power Supplies (UPSs) rated 30 kVA or more and rated 600 Volts or less, and related battery systems installed indoors or outdoors for commercial and industrial applications. UPSs described in this standard are solid-state power systems that provide continuous regulated AC power at the output terminals, while operating from either an AC power source or from a battery system.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Diana Brioso, (301) 215 -4549, diana.brioso@necanet.org; neis@necanet.org

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 514C-201x, Standard for Safety for Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers (revision of ANSI/UL 514C-2011)

(2) Revision to the minimum RTI requirement for box extenders; (4) Clarification of the requirements to evaluate the combination of receptacle and cover as an assembly.

Click here to view these changes in full

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 574-201X, Standard for Safety for Electric Oil Heaters (Proposals dated 2/7/14) (revision of ANSI/UL 574-2004 (R2009))

(1) Overload Protection - New 9.2 - 9.45; New 26.14 and 26.15.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Linda Phinney, (408) 754 -6684, Linda.L.Phinney@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 924-201x, Standard for Safety for Emergency Lighting and Power Equipment (revision of ANSI/UL 924-2011)

Withdrawal of Proposal: Scope expansion to include means of egress lighting controls.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Barbara Davis, (408) 754 -6722, Barbara.J.Davis@ul.com

Comment Deadline: March 24, 2014

AAMI (Association for the Advancement of Medical Instrumentation)

New National Adoption

BSR/AAMI/ISO 11663-201x, Quality of dialysis fluid for haemodialysis and related therapies (national adoption of ISO 11663:2014 with modifications and revision of ANSI/AAMI/ISO 11663-2009 (Ed1))

Specifies minimum quality requirements for dialysis fluids used in haemodialysis and related therapies. Includes dialysis fluids used for haemodialysis and haemodiafiltration, including substitution fluid for haemodiafiltration and haemofiltration. Includes 48 hour TSA method for tests for compliance with microbiological requirements.

Single copy price: 20.00 (AAMI members), $25.00 (List) [Print]; Free (AAMI members), $25.00 (List) [PDF]

Obtain an electronic copy from: www.aami.org

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

Send comments (with copy to psa@ansi.org) to: Cliff Bernier, (703) 253 -8263, CBernier@aami.org

AAMI (Association for the Advancement of Medical Instrumentation)

New National Adoption

BSR/AAMI/ISO 80369-5-201x, Small-bore connectors for liquids and gases in healthcare application - Part 5: Connectors for limb cuff inflation applications (identical national adoption of IEC-ISO 80369-5)

Includes the dimensions and drawings for connectors in limb cuff inflation applications.

Single copy price: Free (AAMI Members); $25.00 (List)

Obtain an electronic copy from: my.aami.org/store

Order from: my.aami.org/store

Send comments (with copy to psa@ansi.org) to: Colleen Elliott, (703) 253 -8261, celliott@aami.org

ASTM (ASTM International)

New Standard

BSR/ASTM WK31924-201x, Specification for Fiber Reinforced Plastic (FRP) Gratings Used in Marine Construction and Shipbuilding (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK33088-201x, Practice ForInstallation of a PVC Segmental Panel Liner System in Man-Entry Size Sewers and Conduits (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

New Standard

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

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK35687-201x, Practice for Joint Testing of Installed Thermoplastic Pipe for Gravity Flow (Non-Pressure) Sewer Lines (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK42313-201x, Test Method for Thermal Endurance of Coating Powders Used for Integral Bus Bar Insulation Systems (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK42315-201x, Test Method for Thermal Endurance of Coating Powders Used for Powder Coating Insulation Systems (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Reaffirmation

BSR/ASTM F449-2002 (R201x), Practice for Subsurface Installation of Corrugated Polyethylene Pipe for Agricultural Drainage or Water Table Control (reaffirmation of ANSI/ASTM F449-2002 (R2008))

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Reaffirmation

BSR/ASTM F1734-2003 (R201x), Practice for Qualification of a Combination of Squeeze Tool, Pipe, and Squeeze-Off Procedures to Avoid Long-Term Damage in Polyethylene (PE) Gas Pipe (reaffirmation of ANSI/ASTM F1734 -2003 (R2009))

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Reaffirmation

BSR/ASTM F2649-2008 (R201x), Specification for Corrugated High Density Polyethylene (HDPE) Grease Interceptor Tanks (reaffirmation of ANSI/ASTM F2649-2008)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D1351-201x, Specification for Thermoplastic Polyethylene Insulation for Electrical Wire and Cable (revision of ANSI/ASTM D1351 -2007)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D1599-201x, Test Method for Resistance to Short-Time Hydraulic Pressure of Plastic Pipe, Tubing, and Fittings (revision of ANSI/ASTM D1599-1999 (R2011))

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D2275-201x, Test Method for Voltage Endurance of Solid Electrical Insulating Materials Subjected to Partial Discharges (Corona) on the Surface (revision of ANSI/ASTM D2275-2001 (R2008))

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D2609-201x, Specification for Plastic Insert Fittings for Polyethylene (PE) Plastic Pipe (revision of ANSI/ASTM D2609-2002 (R2008))

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D3034-201x, Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings (revision of ANSI/ASTM D3034-2008)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D3035-201x, Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter (revision of ANSI/ASTM D3035-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM D4566-201x, Test Methods for Electrical Performance Properties of Insulations and Jackets for Telecommunications Wire and Cable (revision of ANSI/ASTM D4566-2005)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F477-201x, Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe (revision of ANSI/ASTM F477-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F480-201x, Specification for Thermoplastic Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), SCH 40 and SCH 80 (revision of ANSI/ASTM F480-2012)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F645-201x, Guide for Selection, Design, and Installation of Thermoplastic Water-Pressure Piping Systems (revision of ANSI/ASTM F645-2013)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F683-201x, Practice for Selection and Application of Thermal Insulation for Piping and Machinery (revision of ANSI/ASTM F683-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F876-201x, Specification for Crosslinked Polyethylene (PEX) Tubing (revision of ANSI/ASTM F876-2013A)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F2686-201x, Specification for Glass Fiber Reinforced Thermoplastic Pipe (revision of ANSI/ASTM F2686-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ASTM (ASTM International)

Revision

BSR/ASTM F2947-201x, Specification for 150 to 1500 mm [6 to 60 in.] Annular Corrugated Profile-Wall Polyethylene (PE) Pipe and Fittings for Sanitary Sewer Applications (revision of ANSI/ASTM F2947-2012)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

Order from: accreditation@astm.org

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-38C-201x, Cable Pull-Out Test Procedure for Electrical Connectors (reaffirmation of ANSI/EIA 364-38C-2008)

This standard establishes a test method to determine the axial tensile load that can be applied to a mated pair of connectors and the holding effect of a connector cable clamp without causing any detrimental effects upon the cable or connector when subjected to inadvertent axial tensile loads.

Single copy price: $69.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-55-A-2008 (R201x), Current Cycling Test Procedure for Electrical Contacts, Connectors, and Sockets (reaffirmation of ANSI/EIA 364-55-A-2008)

This standard establishes test methods to determine the current cycling characteristics of mated electrical contacts, connectors and sockets using, but not limited to, crimp, press-fit contacts, insulation displacement contact (IDC) terminations, soldered or mechanically attached termination techniques.

Single copy price: $72.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-60A-2008 (R201x), General Methods for Testing of Contact Finishes for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-60A-2008)

This test procedure details the methods for determining the porosity of contact finishes used in electrical connectors, contacts, and sockets.

Single copy price: $92.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-71C-2008 (R201x), Solder Wicking (Wave Solder Technique) for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-71C-2008)

This standard applies to connectors and sockets that are mounted to printed wiring boards (PWB) employing through mount technology.

Single copy price: $69.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-92-1997 (R201x), Wire Bending Test Procedure for Insulation Displacement Contacts (IDC) for Electrical Connectors (reaffirmation of ANSI/EIA 364-92-1997 (R2008))

The object of this test procedure is to assess the ability of an insulation displacement connection to withstand the mechanical stress caused by bending the connected wire or ribbon cable in a specified manner.

Single copy price: $63.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Reaffirmation

BSR/EIA 364-105-A-2008 (R201x), Altitude - Low Temperature Test Procedure for Electrical Connectors and Sockets (reaffirmation of ANSI/EIA 364-105-A-2008)

This standard establishes a test method to simulate actual service usage by inducing low temperatures, and apply the test voltage at simulated altitudes.

Single copy price: $67.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Revision

BSR/EIA 364-11C-201x, Resistance to Solvents Test Procedure for Electrical Connectors and Sockets (revision and redesignation of ANSI/EIA 364-11B-2005 (R2010))

This procedure is to determine the ability of connector materials to withstand solvents that may be used to clean components.

Single copy price: $63.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Revision

BSR/EIA 364-20E-201x, Withstanding Voltage Test Procedure for Electrical Connectors, Sockets, and Coaxial Contacts (revision and redesignation of ANSI/EIA 364-20D-2008)

This standard applies to electrical connectors, sockets and coaxial contacts and the object of this test is to describe a method for measuring the withstanding voltage.

Single copy price: $75.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Revision

BSR/EIA 364-61-A-201x, Resistance to Soldering Heat from Rework Test Procedure for Electrical Connectors and Sockets Mounted on Printed Circuit Boards (revision and redesignation of ANSI/EIA 364-61-2013)

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 / wave solder, 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: $72.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

ECA (Electronic Components Association)

Revision

BSR/EIA 364-70C-201x, Temperature Rise Versus Current Test Procedure for Electrical Connectors and Sockets (revision and redesignation of ANSI/EIA 364-70B-2007 (R2013))

This project establishes the test procedures for determining temperature rise versus current for connectors and sockets with conductor sizes equal to or less than 0000 AWG or equivalent.

Single copy price: $75.00

Obtain an electronic copy from: global.ihs.com (877) 413-5184

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

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

Home Innovation (Home Innovation Research Labs)

Revision

BSR/ICC 700-201x, National Green Building Standard (revision of ANSI/ICC 700-2012)

The provisions of this Standard shall apply to design and construction of the residential portion(s) of any building, not classified as an institutional use, in all climate zones. This Standard shall also apply to subdivisions, building sites, building lots, accessory structures, and the residential portions of alterations, additions, renovations, mixed-use buildings, and historic buildings.

Single copy price: $35.95

Obtain an electronic copy from: www.builderbooks.com

Order from: www.builderbooks.com

Send comments (with copy to psa@ansi.org) to: www.homeinnovation.com/ngbs

NEMA (ASC C136) (National Electrical Manufacturers Association)

Revision

BSR C136.13-201x, Roadway and Area Lighting Equipment - Metal Brackets for Wood Poles (revision of ANSI C136.13-2004 (R2009))

This standard covers metal pipe, tubing, and structural brackets for wood poles designed to support luminaires of generally spherical, ellipsoidal, or rectangular shapes used in roadway and area lighting.

Single copy price: $50.00

Obtain an electronic copy from: megan.hayes@nema.org

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

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

OPEI (Outdoor Power Equipment Institute)

Revision

BSR/OPEI B71.3-201x, Snow Throwers - Safety Specifications (revision of ANSI B71.3-2005)

The specifications in this standard apply to (a) walk-behind power snow throwers, (b) ride-on power snow throwers, (c) lawn ride-on tractors with snow thrower attachments, (d) lawn and garden tractors with snow thrower attachments, and (e) lever-steer ride-on machines with snow thrower attachments. These specifications are not intended to apply to hand-held snow throwers nor to airport, highway, and agricultural types of snow removal machines and equipment. This standard does not cover all of the specifications that apply to electrically powered snow throwers.

Single copy price: 180.00 (List); $144.00 (OPEI Members)

Obtain an electronic copy from: dmustico@opei.org

Order from: Daniel Mustico, (703) 549-7600, dmustico@opei.org

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

SJI (Steel Joist Institute)

Revision

BSR/SJI K/LH/DLH/G-2015, Standard Specification For Joist Girders and Open Web Steel Joists; K-Series, LH/DLH-Series (revision, redesignation and consolidation of ANSI/SJI K-2010, ANSI/SJI JG-2010, ANSI/SJI LH/DLH -2010)

This consolidation effort will take three existing standards and make them one. This effort is being made to eliminate contradictions between the series and provide a simplified approach for the specifying professional.

Single copy price: $25.00

Obtain an electronic copy from: steeljoist.org

Order from: Sharon Jack, (843) 407-4091, sjack@steeljoist.org

Send comments (with copy to psa@ansi.org) to: Kenneth Charles, (843) 407 -4091, kcharles@steeljoist.org

UL (Underwriters Laboratories, Inc.)

New Standard

BSR/UL 2775-201X, Standard for Safety for Fixed Condensed Aerosol Extinguishing System Units (new standard)

UL proposes the first edition of the Standard for Fixed Condensed Aerosol Extinguishing System Units, UL 2775.

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) to: Nicolette Allen, (919) 549 -0973, Nicolette.Allen@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 207-201x, Standard for Safety for Refrigerant-Containing Components and Accessories, Nonelectrical (revision of ANSI/UL 207-2013)

The following is being proposed: (1) Revisions to permit certain high-side components based on a reduced test pressure; (2) Addition of alternative moist ammonia test; (3) Clarifications and corrections; and (4) Revisions to refrigerant requirements.

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) to: Jeff Prusko, (847) 664 -3416, jeffrey.prusko@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 60745-2-22-201x, Standard for Safety for Hand-Held Motor-Operated Electrical-Tools Safety - Part 2-22: Particular Requirements for Cut-Off Machines (revision of ANSI/UL 60745-2-22-2012)

(1) Proposed revision to clause 8.1, DV to allow for the use of alternative marking for cut-off machines with a permanently fixed guard.

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) to: Beth Northcott, (847) 664 -3198, Elizabeth.Northcott@ul.com

Comment Deadline: April 8, 2014

Reaffirmations and withdrawals available electronically may be accessed at: webstore.ansi.org

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME Y14.31-201x, Undimensioned Drawings (revision of ANSI/ASME Y14.31-2008)

This Standard establishes the requirements for undimensioned drawings that graphically define items with true geometry view(s) and predominantly without the use of dimensions.

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

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:

ATIS (Alliance for Telecommunications Industry Solutions)

BSR ATIS 0600015.11-201x, Energy Efficiency for Telecommunications Equipment: Methodology for Measurement and Reporting for Power Systems, UPS (new standard)

VITA (VMEbus International Trade Association (VITA))

BSR/VITA 40-201x, Status Indication Standard (revision of ANSI/VITA 40 -2003)

30 Day Notice of Withdrawal: ANS 5 to 10 years past approval date

In accordance with clause 4.7.1 Periodic Maintenance of American National Standards of the ANSI Essential Requirements, the following American National Standards have not been reaffirmed or revised within the five-year period following approval as an ANS. Thus, they shall be withdrawn at the close of this 30-day public review notice in Standards Action.

ANSI/ASTM D2751-2005, Specification for Acrylonitrile-Butadiene-Styrene (ABS) Sewer Pipe and Fittings

ANSI/ASTM D5423-1999 (R2005), Specification for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation

ANSI/ASTM E1410-1991 (R2005), Practice for Specifying Data for Evaluation of Energy Used in Residential Buildings

ANSI/ASTM E1464-1992 (R2005), Guide for Developing Energy Monitoring Protocols for Commercial and Institutional Buildings or Facilities (04.11)

ANSI/ASTM F2336-2005, Guide for Roller Hockey Playing Facilities

Call for Members (ANS Consensus Bodies)

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

AAMI (Association for the Advancement of Medical Instrumentation)

Office: 4301 N Fairfax Drive
Suite 301
Arlington, VA 22203-1633

Contact: *Jennifer Moyer*

Phone: (703) 253-8274

Fax: (703) 276-0793

E-mail: jmoyer@aami.org

BSR/AAMI ST15883-1-2009 (R201x), Washer-disinfectors, Part 1: General requirements, terms and definitions and tests (reaffirmation of ANSI/AAMI ST15883-1-2009)

BSR/AAMI/ISO 11737-2-2009 (R201x), Sterilization of medical devices - Microbiological methods - Part 2: Tests of sterility performed in the definition, validation and maintenance of a sterilization process (reaffirmation of ANSI/AAMI/ISO 11737-2-2009)

BSR/AAMI/ISO 13408-4-2005 (R201x), Aseptic processing of health care products - Part 4: Clean-in-place technologies (reaffirmation of ANSI/AAMI/ISO 13408-4-2005 (R2012))

AMCA (Air Movement and Control Association)

Office: 30 West University Drive
Arlington Heights, IL 60004-1893

Contact: *Amanda Muledy*

Phone: (847) 704-6295

Fax: (847) 253-0088

E-mail: amuledy@amca.org

BSR/AMCA 207-XX-201x, Wire-to-Air Efficiency (new standard)

ASA (ASC S2) (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

ANSI S2.4-1976 (R2004), Method for Specifying the Characteristics of Auxiliary Analog Equipment for Shock and Vibration Measurements (reaffirmation of ANSI S2.4-1976 (R2001))

FM (FM Approvals)

Office: 1151 Boston-Providence Turnpike
Norwood, MA 2062

Contact: *Josephine Mahnken*

Phone: (781) 255-4813

Fax: (781) 762-9375

E-mail: josephine.mahnken@fmglobal.com; thomas.mccarty@fmapprovals.com

BSR/FM 4478-201x, Rigid Photovoltaic Modules (new standard)

HI (Hydraulic Institute)

Office: 6 Campus Drive
Parsippany, NJ 07054

Contact: *Denielle Giordano*

Phone: (973) 267-9700

E-mail: dgiordano@pumps.org

BSR/HI 1.1-1.2-201X, Rotodynamic Centrifugal Pumps for Nomenclature and Definitions (revision of ANSI/HI 1.1-1.2-2008)

NAAMM (National Association of Architectural Metal Manufacturers)

Office: 800 Roosevelt Road, Building C
Glen Ellyn, IL 23505

Contact: *Vernon (Wes) Lewis*

Phone: (757) 489-0787

Fax: (757) 489-0788

E-mail: wlewis7@cox.net

BSR/NAAMM HMMA 861-2014, Guide Specifications for Commercial Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 861-2006)

NFRC (National Fenestration Rating Council)

Office: 6305 Ivy Lane
Suite 140
Greenbelt, MD 20770

Contact: *Robin Merrifield*

Phone: (301) 589-1776, ext. 213

Fax: (360) 824-7124

E-mail: rmerrifield@nfrc.org

BSR/NFRC 100-201x, Procedure for Determining Fenestration Product U-factors (new standard)

BSR/NFRC 200-201x, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence (new standard)

BSR/NFRC 400-201x, Procedure for Determining Fenestration Product Air Leakage (new standard)

PLASA (PLASA North America)

Office: 630 Ninth Avenue
Suite 609
New York, NY 10036-3748

Contact: *Karl Ruling*

Phone: (212) 244-1505

Fax: (212) 244-1502

E-mail: karl.ruling@plasa.org

BSR E1.50-201x, Entertainment Technology - Safety Requirements for LED, Video & Display Systems (new standard)

BSR E1.52-201x, Configuration standard for 19-contact circular connectors commonly used in the entertainment industry for lighting circuits and other applications (new standard)

UL (Underwriters Laboratories, Inc.)

Office: 455 E Trimble Road
San Jose, CA 95131-1230

Contact: *Paul Lloret*

Phone: (408) 754-6618

Fax: (408) 754-6618

E-mail: Paul.E.Lloret@ul.com

BSR/UL 539-201x, Standard for Safety for Single and Multiple Station Heat Alarms (revision of ANSI/UL 539-2009)

BSR/UL 568-2004 (R201x), Standard for Safety for Nonmetallic Cable Tray Systems (reaffirmation of ANSI/UL 568-2004 (R2009))

BSR/UL 1660-201X, Standard for Safety for Liquid-Tight Flexible Nonmetallic Conduit (revision of ANSI/UL 1660-2008 (R2013))

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.

AGA (ASC Z380) (American Gas Association)

Addenda

ANSI/GPTC Z380.1-2012, Addendum No. 5-2014, Guide for Gas Transmission and Distribution Piping Systems (addenda to ANSI/GPTC Z380.1-2012): 2/3/2014

AISC (American Institute of Steel Construction)

Supplement

ANSI/AISC 358-S2-2014, Supplement No. 2 to AISC 358-10 Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications (supplement to ANSI/AISC 358-2010, ANSI/AISC 358-2010/S1-2011): 2/4/2014

AISI (American Iron and Steel Institute)

Revision

ANSI/AISI S911-2014, Method for Flexural Testing Cold-Formed Steel Hat Shaped Beams (revision of ANSI/AISI S911-2008): 2/4/2014

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

New Standard

ANSI/APCO 3.108.1-2014, Core Competencies and Minimum Training Standards for Public Safety Communications Instructor (new standard): 2/3/2014

API (American Petroleum Institute)

New National Adoption

ANSI/API MPMS Chapter 7.5, 1st Edition-2014, Temperature Determination - Automatic Tank Temperature Measurement on Board Marine Vessels Carrying Refrigerated Hydrocarbon and Chemical Gas Fluids (identical national adoption of ISO 8310:2012): 1/31/2014

ASABE (American Society of Agricultural and Biological Engineers)

New National Adoption

ANSI/ASAE/ISO 5687-2014, Equipment for harvesting - Combine harvesters - Determination and designation of grain tank capacity and unloading device performance (national adoption of ISO 5687:1999 with modifications and revision of ANSI/ASAE/ISO 5687 -2004): 2/3/2014

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

Addenda

ANSI/ASHRAE Addendum 15a-2014, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15 -2013): 1/23/2014

ANSI/ASHRAE Addendum 15a-2014, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15 -2013): 1/23/2014

ANSI/ASHRAE Addendum 62.2t-2014, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2010): 1/23/2014

ASQ (American Society for Quality)

Revision

ANSI/ASQ E4:2014, Quality management systems for environmental information and technology programs - Requirements with guidance for use (revision and redesignation of ANSI/ASQ E4-2004): 2/4/2014

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

New Standard

ANSI/ASSE A10.23-2014, Safety Requirements for the Installation of Drilled Shafts (new standard): 1/31/2014

ATIS (Alliance for Telecommunications Industry Solutions)

Reaffirmation

ANSI ATIS 0600413-2009 (R2014), Network to Customer Installation Interfaces - Asymmetric Digital Subscriber Line (ADSL) Metallic Interface (reaffirmation of ANSI ATIS 0600413-2009): 2/4/2014

ANSI ATIS 0600424-2004 (R2014), Interface Between Networks and Customer Installation Very-high-bit-rate Digital Subscriber Lines (VDSL) Metallic Interface (DMT based) (reaffirmation of ANSI ATIS 0600424-2004 (R2009)): 2/4/2014

ANSI ATIS 0600601-1999 (R2014), Integrated Services Digital Network (ISDN) - Basic Access Interface for Use on Metallic Loops for Application on the Network Side of the NT (Layer 1 Specification) (reaffirmation of ANSI ATIS 0600601-1999 (R2009)): 2/3/2014

CSA (CSA Group)

Revision

ANSI/CSA NGV 4.2-2014, Hoses for Natural Gas Dispensing Systems (revision of ANSI/IAS NGV 4.2/CSA 12.52-1999 (R2009)): 2/3/2014

ECA (Electronic Components Association)

New Standard

ANSI/EIA/ECA 747B-2014, Adhesive backed punched plastic carrier taping of singulated bare die and other surface mount components for automatic handling of devices generally less than 1.0mm thick (new standard): 2/4/2014

FM (FM Approvals)

New Standard

ANSI/FM 2510-2014, Flood Abatement Equipment (new standard): 2/4/2014

NEMA (ASC C8) (National Electrical Manufacturers Association)

Revision

ANSI ICEA T-34-664-2014, Test Method for Conducting Longitudinal Water Penetration Resistance Tests on Longitudinal Water Blocked Cables (revision of ANSI ICEA T-34-664-2007): 2/4/2014

UL (Underwriters Laboratories, Inc.)

New Standard

ANSI/UL 60730-2-5-2014, Standard for Safety for Automatic Electrical Controls for Household and Similar Use, Part 2: Particular Requirements for Automatic Electrical Burner Control Systems (new standard): 1/30/2014

Reaffirmation

ANSI/UL 680-2004 (R2014), Standard for Safety for Emergency Vault Ventilators and Vault-Ventilating Ports (Proposal dated 11/22/13) (reaffirmation of ANSI/UL 680-2004 (R2009)): 1/31/2014

ANSI/UL 1004-8-2009 (R2014), Standard for Safety for Inverter Duty Motors (Proposal dated 12-13-13) (reaffirmation of ANSI/UL 1004-8 -2009): 2/3/2014

Revision

ANSI/UL 51-2014, Standard for Safety for Power-Operated Pumps for Anhydrous Ammonia and LP-Gas (Proposals dated October 25, 2013) (revision of ANSI/UL 51-2013): 1/10/2014

ANSI/UL 797A-2014, Standard for Safety for Electrical Metallic Tubing - Aluminum (revision of ANSI/UL 797A-2010): 1/30/2014

* ANSI/UL 817-2014, Standard for Safety for Cord Sets and Power-Supply Cords (revision of ANSI/UL 817-2013): 1/31/2014

* ANSI/UL 817-2014a, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 07-26-13) (revision of ANSI/UL 817 -2013): 1/31/2014

* ANSI/UL 2442-2014, Standard for Safety for Wall- and Ceiling-Mounts and Accessories (revision of ANSI/UL 2442-2013): 1/14/2014

ANSI/UL 2459-2014, Standard for Safety for Insulated Multi-Pole Splicing Wire Connectors (revision of ANSI/UL 2459-2008): 1/31/2014

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, 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.

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

Office: 1791 Tullie Circle NE
Atlanta, GA 30329

Contact: *Tanisha Meyers-Lisle*

Fax: (678) 539-2111

E-mail: tmlisle@ashrae.org

BSR/ASHRAE Standard 26-201X, Mechanical Refrigeration and Air-Conditioning Installations Aboard Ship (revision of ANSI/ASHRAE Standard 26-2010)

Stakeholders: Equipment manufacturing, shipping companies, regulator (e.g., US Coast Guard, American Bureau of Ships, Lloyd's Register).

Project Need: Used by manufacturing, ship owners/operators and marine regulatory agencies for the design, servicing, and commissioning of shipboard refrigeration and space conditioning.

The purpose of this standard is to provide the minimum general requirements for the design, construction, installation, operation, inspection, and maintenance of mechanical refrigerating and air-conditioning equipment aboard ship to permit the safe, efficient, and reliable operation of such systems.

ASTM (ASTM International)

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

Contact: *Corice Leonard*

Fax: (610) 834-3683

E-mail: accreditation@astm.org

BSR/ASTM D3485-201x, Specification for Smooth-Wall Coilable Polyethylene (PE) Conduit (Duct) for Preassembled Wire and Cable (new standard)

Stakeholders: Plastic Piping Systems industry.

Project Need: This specification covers materials, dimensions, and workmanship, and performance tests for medium-density and high-density smooth-wall coilable polyethylene (PE) conduit (duct) containing electrical wires or cables, or both, preassembled by the manufacturer.

http://www.astm.org/ANSI_SA

CPA (Composite Panel Association)

Office: 19465 Deerfield Avenue
Suite 306
Leesburg, VA 20176

Contact: *Gary Heroux*

Fax: (703) 724-1588

E-mail: gheroux@cpamail.org

* BSR A208.1-201x, Particleboard (revision of ANSI A208.1-2009)

Stakeholders: Wood products, furniture, cabinets, fixtures.

Project Need: Update and revise ANSI A208.1 product requirements.

The purpose of this Standard is to establish a nationally recognized voluntary consensus standard for particleboard which provides a common basis for understanding throughout the particleboard industry and among and between those specifying and using industry products.

* BSR A208.2-201x, Medium Density Fiberboard (MDF) for Interior Applications (revision of ANSI A208.2-2009)

Stakeholders: Wood products, furniture, cabinets, fixtures.

Project Need: Update and revise ANSI A208.2 product requirements.

The purpose of this Standard is to establish a nationally recognized voluntary consensus standard for MDF for interior applications which can serve as a common basis for understanding among those manufacturing, specifying, or using MDF products.

IEEE (Institute of Electrical and Electronics Engineers)

Office: 445 Hoes Lane
Piscataway, NJ 08854-4141

Contact: *David Ringle*

Fax: (732) 875-0524

E-mail: d.ringle@ieee.org

BSR/IEEE 802.3br-201x, Standard for Ethernet Amendment Specification and Management Parameters for Interspersing Express Traffic (supplement to ANSI/IEEE 802.3-2009)

Stakeholders: Users and producers of systems and components for the automotive, industrial automation, transportation (aircraft and rail) industries, professional audio-video industries.

Project Need: The scope of this project is to specify additions to and appropriate modifications of IEEE Std 802.3 to add support for interspersing express traffic over a single physical link.

This standard defines Ethernet local area, access, and metropolitan area networks. Ethernet is specified at selected speeds of operation; and uses a common media access control (MAC) specification and management information base (MIB). The Carrier Sense Multiple Access with Collision Detection (CSMA/CD) MAC protocol specifies shared-medium (half-duplex) operation, as well as full-duplex operation. Speed-specific Media Independent Interfaces (MIIs) provide an architectural and optional implementation interface to selected Physical Layer entities (PHY).

NAAMM (National Association of Architectural Metal Manufacturers)

Office: 800 Roosevelt Road, Building C
Glen Ellyn, IL 23505

Contact: *Vernon (Wes) Lewis*

Fax: (757) 489-0788

E-mail: wlewis7@cox.net

BSR/NAAMM FP 1001-2014, Guide Specifications for Design of Meal Flagpoles (revision of ANSI/NAAMM FP 1001-2007)

Stakeholders: Engineers, architects, government agencies, building owners.

Project Need: This standard provides guidance for the design of metal flagpoles.

This document provides design guidance for the structure of metal flagpoles. The design of flagpole foundations is not included.

NEMA (ASC C136) (National Electrical Manufacturers Association)

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

Contact: *Megan Hayes*

Fax: (703) 841-3385

E-mail: megan.hayes@nema.org

BSR C136.38-201x, Roadway and Area Lighting Equipment - Induction Lighting (revision of ANSI C136.38-2009)

Stakeholders: Manufacturers, users and specifiers of roadway and area lighting equipment.

Project Need: This standard is being revised to reflect current industry practices and provide additional clarification.

This standard defines the electrical and mechanical requirements of induction-type light sources for use in roadway and area lighting luminaires.

RESNA (Rehabilitation Engineering and Assistive Technology Societv of North America)

Office: 1700 N. Moore Street
Suite 1540
Arlington, VA 22209-1903

Contact: *Yvonne Meding*

Fax: (703) 524-6630

E-mail: YMeding@resna.org

* BSR/RESNA WC-3-2014, RESNA Standard for Wheelchairs - Volume 3: Wheelchair Seating (revision of ANSI/RESNA WC-3-2013)

Stakeholders: Wheelchair users, caregivers and organizations representing the technical needs of persons with mobility impairments; AT Practitioners and AT Suppliers of WC and Seating Devices; the FDA that manages WCs as medical devices; the Centers for Medicare & Medicaid Services and Medicare Pricing; Data Analysis and Coding who establish coding guidelines and establish policy for the provision of mobility technologies; manufacturers of WCs, scooters, and SD; and researchers, designers, and test labs of WC and SD.

Project Need: Enhance RESNA WC-3:2013 to address performance life, envelopment test, and heat and water vapor test.

Wheelchair seating as a sub-specialty of rehabilitation services involves the selection and provision of wheelchair seating products to provide improved body support to the wheelchair user. This standard applies to all wheelchair seating and postural devices. It specifies test methods or methods of measurement for: vocabulary; the physical and mechanical characteristics; performance life; envelopment test; heat and water vapor test; and static, impact and load-strength testing.

SPRI (Single Ply Roofing Institute)

Office: 411 Waverley Oaks Road
Suite 331B
Waltham, MA 02452

Contact: *Linda King*

Fax: (781) 647-7222

E-mail: info@spri.org

BSR/SPRI WD-1-201x, Performance Standard for Retrofit Drains (revision and redesignation of ANSI/SPRI RD-1-2009)

Stakeholders: Manufacturers, building owners, designers, architects, installers.

Project Need: To update and recanvass this standard according to the 5-year cycle.

This standard is a reference on retrofit roof drains which are designated for installation in existing drain plumbing on existing roofs. This standard does not address roof design criteria

TIA (Telecommunications Industry Association)

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

Contact: *Marianna Kramarikova*

E-mail: standards@tiaonline.org

BSR/TIA 968-B-2-201x, Telecommunications - Telephone Terminal Equipment - Technical Requirements for Connection of Terminal Equipment to the Telephone Network - Addendum 2 (addenda to ANSI/TIA 968-B-2009)

Stakeholders: Manufacturers of analog wireline telephone products with live voice transducers, wireline service providers, Telecommunication Certification Bodies (TCBs), labs that provide testing services for showing compliance with US FCC Part 68 and Canadian CS-03 regulations, the US Administrative Council for Terminal Attachments (ACTA), and the Canadian Terminal Attachment Program Advisory Committee (TAPAC).

Project Need: Provide updates for an existing standard.

This Standard specifies technical criteria for terminal equipment approved in accordance with Title 47 of the U.S. Code of Federal Regulations (47 C.F.R.), Part 68 for direct connection to the public switched telephone network, including private line services provided over wireline facilities owned by providers of wireline telecommunications. This addendum adds a new subclause specifying the use of an acoustic stimulus signal when testing analog telephones having electroacoustic transducers for live voice input for compliance with out-of-band emissions and in-band longitudinal signal requirements.

TIA (Telecommunications Industry Association)

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

Contact: *Teesha Jenkins*

Fax: (703) 907-7727

E-mail: standards@tiaonline.org

BSR/TIA 455-C-201x, Standard test procedure for fiber optic fibers, cables, transducers, sensors, connecting and terminating devices, and other fiber optic components (new standard)

Stakeholders: Telecom, optical fiber manufacturers, developers, and users.

Project Need: Create a new standard.

This document, together with its addenda, provides uniform test procedures for testing fiber-optic components intended for, or forming a part of, optical communications and data transmission systems. Neither this document, nor its addenda, provide procedures designed for testing fiber-optic systems. For test procedures for fiber-optic systems or subsystems, refer to the TIA/EIA-526 series of documents.

UL (Underwriters Laboratories, Inc.)

Office: 12 Laboratory Drive
Research Triangle Park, NC 27709-3995

Contact: *Vickie Hinton*

E-mail: Vickie.T.Hinton@ul.com

BSR/UL 61010-2-010-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-010: Particular Requirements for Laboratory Equipment for the Heating of Materials (identical national adoption of IEC 61010-2-010)

Stakeholders: Manufacturers of electrically powered laboratory equipment for heating materials; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-010, which is a national adoption of IEC 61010-2-010.

UL 61010-2-010 constitutes Part 2-010 of a planned series of standards on industrial-process measurement, control, and automation equipment. This part applies only to electrically powered laboratory equipment for the heating materials, where the heating of materials is the only function or is one of several functions of the equipment. This part does not apply to equipment for heating and ventilation of laboratories, sterilizing equipment, and heating equipment which the operator is intended to enter.

BSR/UL 61010-2-020-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-020: Particular Requirements for Laboratory Centrifuges (identical national adoption of IEC 61010-2-020)

Stakeholders: Manufacturers of electrically powered laboratory centrifuges; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-020, which is a national adoption of IEC 61010-2-020.

UL 61010-2-020 constitutes Part 2-020 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies only to electrically powered laboratory centrifuges.

BSR/UL 61010-2-032-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-032: Particular Requirements for Hand-Held and Hand-Manipulated Current Sensors for Electrical Test and Measurement (identical national adoption of IEC 61010-2-032)

Stakeholders: Manufacturers of hand-held and hand-manipulated current sensors; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-032, which is a national adoption of IEC 61010-2-032.

UL 61010-2-032 constitutes Part 2-032 of a planned series of standards on industrial-process measurement, control, and automation equipment. This part applies to safety requirements that are generally applicable to hand-held and hand-manipulated current sensors.

BSR/UL 61010-2-033-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-033: Particular Requirements for Hand-Held Multimeters and other Meters, for Domestic and Professional Use, Capable of Measuring Mains Voltage (identical national adoption of IEC 61010-2-033)

Stakeholders: Manufacturers of hand-held meters; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-033, which is a national adoption of IEC 61010-2-033.

UL 61010-2-033 constitutes Part 2-033 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to safety requirements for hand-held meters that have a primary purposes of measuring voltage on a live MAINS circuit. This part does not cover hand-held equipment that is not capable of measuring MAINS voltages such as oscilloscopes, wattmeters, process-control Multimeters, and communication test sets.

BSR/UL 61010-2-040-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-040: Particular Requirements for Sterilizers and Washer-Disinfectors Used to Treat Medical Materials (identical national adoption of IEC 61010-2-040)

Stakeholders: Manufacturers of sterilizers, disinfectors using steam, toxic gas, toxic aerosol or toxic vapour and washer infectors; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-040, which is a national adoption of IEC 61010-2-040.

UL 61010-2-040 constitutes Part 2-040 of a planned series of standards on industrial-process measurement, control, and automation equipment. This part applies to safety requirements for electrical equipment intended for sterilization, washing, and disinfection of medical materials in the medical, veterinary, pharmaceutical, and laboratory fields when used under the environmental conditions.

BSR/UL 61010-2-051-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-051: Particular Requirements for Laboratory Equipment for Mixing and Stirring (identical national adoption of IEC 61010-2-051)

Stakeholders: Manufacturers of electrically operated laboratory equipment and accessories for mechanical mixing and stirring heating materials; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-051, which is a national adoption of IEC 61010-2-051.

UL 61010-2-051 constitutes Part 2-051 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to electrically operated laboratory equipment and its accessories for mechanical mixing and stirring, where mechanical energy influences the shape or size or homogeneity of materials and their accessories. Such devices may contain heating elements.

BSR/UL 61010-2-061-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-061: Particular Requirements for Laboratory Atomic Spectrometers with Thermal Atomization and Ionization (identical national adoption of IEC 61010-2-061)

Stakeholders: Manufacturers of electrically powered laboratory atomic spectrometers with thermal atomization; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-061, which is a national adoption of IEC 61010-2-061.

UL 61010-2-061 constitutes Part 2-061 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to electrically powered laboratory atomic spectrometers with thermal atomization. This part does not apply to thermal atomization detectors (flame ionization detectors) used in gas chromatography.

BSR/UL 61010-2-081-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-081: Particular Requirements for Automatic and Semi-Automatic Laboratory Equipment for Analysis and Other Purposes (identical national adoption of IEC 61010-2-081)

Stakeholders: Manufacturers of automatic and semi-automatic laboratory equipment for analysis and other purposes; Manufacturers who supply components to the products covered by the standard. Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable. Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-081, which is a national adoption of IEC 61010-2-081.

UL 61010-2-081 constitutes Part 2-081 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to automatic and semi-automatic laboratory equipment for analysis and other purposes. Examples of equipment within the scope include analytical, automatic sampler (pipettor, aliquoter) and equipment for sample replication and amplification.

BSR/UL 61010-2-091-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-091: Particular Requirements for Cabinet X-Ray Systems (identical national adoption of IEC 61010-2-091)

Stakeholders: Manufacturers of cabinet x-ray systems; Manufacturers who supply components to the products covered by the standard; inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable;. Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-091, which is a national adoption of IEC 61010-2-091.

UL 61010-2-091 constitutes Part 2-091 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to safety requirements for design and methods of construction of cabinet X-Ray Systems to provide adequate protection for operators, bystanders, trained service personnel, and the surrounding area against unintentionally emitted X-radiation and from mechanical hazards related to their conveyors. These systems are used in industrial, commercial, and public environments.

BSR/UL 61010-2-101-201X, Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 2-101: Particular Requirements for In Vitro Diagnostic (IVD) Medical Equipment (identical national adoption of IEC 61010-2-101)

Stakeholders: Manufacturers of IVD medical equipment; Manufacturers who supply components to the products covered by the standard; Inspection Authorities (AHJ) responsible for inspecting the installation of this equipment as applicable; Commercial and Industrial users of this equipment.

Project Need: UL is seeking ANSI approval on a new standard, UL 61010-2-101, which is a national adoption of IEC 61010-2-101.

UL 61010-2-101 constitutes Part 2-101 of a planned series of standards on industrial-process measurement, control and automation equipment. This part applies to equipment intended for in vitro diagnostic (IVD) medical purposes, including self-test IVD.

American National Standards Maintained Under Continuous Maintenance

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

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

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

- AAMI (Association for the Advancement of Medical Instrumentation)
- AAMVA (American Association of Motor Vehicle Administrators)
- AGA (American Gas Association)
- AGSC (Auto Glass Safety Council)
- ASC X9 (Accredited Standards Committee X9, Incorporated)
- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.)
- ASME (American Society of Mechanical Engineers)
- ASTM (ASTM International)
- 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, including contact information at the ANSI Accredited Standards Developer, please visit *ANSI Online* at www.ansi.org/asd, select “Standards Activities,” click on “Public Review and Comment” and “American National Standards Maintained Under Continuous Maintenance.” This information is also available directly at www.ansi.org/publicreview.

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

ANSI-Accredited Standards Developers Contact Information

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

AAMI
Association for the Advancement of Medical Instrumentation

4301 N Fairfax Drive
Suite 301
Arlington, VA 22203-1633
Phone: (703) 253-8261
Fax: (703) 276-0793
Web: www.aami.org

AGA (ASC Z380)
American Gas Association

400 N. Capitol Street, N.W.
Washington, DC 20001
Phone: (202) 824-7312
Fax: (202) 824-9122
Web: www.aga.org

AISC
American Institute of Steel Construction

1 East Wacker Drive
Suite 700
Chicago, IL 60601
Phone: (312) 670-8318
Fax: (312) 670-5403
Web: www.aisc.org

AISI
American Iron and Steel Institute

25 Massachusetts Avenue, NW
Suite 800
Washington, DC 20001
Phone: (202) 452-7100
Fax: (202) 452-1039
Web: www.steel.org

APCO
Association of Public-Safety Communications Officials-International

351 N. Williamson Boulevard
Daytona Beach, FL 32114-1112
Phone: (919) 625-6864
Fax: (386) 944-2794
Web: www.apcoIntl.org

API
American Petroleum Institute

1220 L Street, NW
Washington, DC 20005
Phone: (202) 682-8130
Fax: (202) 962-4797
Web: www.api.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

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

1791 Tullie Cir NE
Atlanta, GA 30043
Phone: (678) 539-1209
Fax: (678) 539-2209
Web: www.ashrae.org

ASME
American Society of Mechanical Engineers

Two Park Avenue
New York, NY 10016
Phone: (212) 591-8521
Fax: (212) 591-8501
Web: www.asme.org

ASQ
American Society for Quality

600 N Plankinton Ave
Milwaukee, WI 53201
Phone: (800) 248-1946
Web: www.asq.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

ASTM
ASTM International

100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
Phone: (610) 832-9744
Fax: (610) 834-3683
Web: 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

CPA
Composite Panel Association

19465 Deerfield Avenue
Suite 306
Leesburg, VA 20176
Phone: (703) 724-1128
Fax: (703) 724-1588

CSA
CSA Group

8501 E. Pleasant Valley Road
Cleveland, OH 44131
Phone: (216) 524-4990
Fax: (216) 520-8979
Web: www.csa-america.org

ECA
Electronic Components Association

2214 Rock Hill Road
Suite 170
Herndon, VA 20170-4212
Phone: (571) 323-0294
Fax: (571) 323-0245
Web: www.eciaonline.org

EOS/ESD
ESD Association

7900 Turin Rd., Bldg. 3
Rome, NY 13440
Phone: (315) 339-6937
Fax: (315) 339-6793
Web: www.esda.org

FM
FM Approvals

1151 Boston-Providence Turnpike
Norwood, MA 2062
Phone: (781) 255-4813
Fax: (781) 762-9375
Web: www.fmglobal.com

Home Innovation
Home Innovation Research Labs

400 Prince George's Boulevard
Upper Marlboro, MD 20774-8731
Phone: (301) 430-6249
Fax: (301) 430-6182
Web: www.HomeInnovation.com

ICC
International Code Council

4051 West Flossmoor Road
Country Club Hills, IL 60478-5795
Phone: (708) 799-2300
Fax: (708) 799-0320
Web: www.iccsafe.org

IEEE
Institute of Electrical and Electronics Engineers

445 Hoes Lane
Piscataway, NJ 08854-4141
Phone: (732) 562-3806
Fax: (732) 875-0524
Web: www.ieee.org

NAAMM
National Association of Architectural Metal Manufacturers

800 Roosevelt Road, Building C
Glen Ellyn, IL 23505
Phone: (757) 489-0787
Fax: (757) 489-0788
Web: www.naamm.org

NACE
NACE International, the Corrosion Society

1440 South Creek Drive
Houston, TX 77084-4906
Phone: (281) 228-6203
Fax: (281) 228-6387
Web: www.nace.org

NECA
National Electrical Contractors Association

3 Bethesda Metro Center
Suite 1100
Bethesda, MD 20814
Phone: (301) 215-4549
Fax: (301) 215-4500
Web: www.necanet.org

NEMA (ASC C8)
National Electrical Manufacturers Association

1300 North 17th Street
Suite 1752
Rosslyn, VA 22209
Phone: (703) 841-3271
Fax: 703-841-3371
Web: 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

OPEI
Outdoor Power Equipment Institute

341 South Patrick Street
Alexandria, VA 22314
Phone: (703) 549-7600
Fax: (703) 549-7604
Web: www.opei.org

RESNA
Rehabilitation Engineering and Assistive Technology Society of North America

1700 N. Moore Street
Suite 1540
Arlington, VA 22209-1903
Phone: (703) 524-6686
Fax: (703) 524-6630
Web: www.resna.org

SJI
Steel Joist Institute

234 W. Cheves Street
Florence, SC 29501
Phone: (843) 407-4091
Fax: (843) 407-4044
Web: www.steeljoist.org

SPRI
Single Ply Roofing Institute

411 Waverley Oaks Road
Suite 331B
Waltham, MA 02452
Phone: (781) 647-7026
Fax: (781) 647-7222
Web: www.spri.org

TIA
Telecommunications Industry Association

1320 North Courthouse Road
Suite 200
Arlington, VA 22201
Phone: (703) 907-7706
Fax: (703) 907-7727
Web: www.tiaonline.org

UL
Underwriters Laboratories, Inc.

455 E Trimble Road
San Jose, CA 95131-1230
Phone: (408) 754-6618
Fax: (408) 754-6618
Web: www.ul.com

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

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.

AIR QUALITY (TC 146)

ISO/DIS 17211, Stationary source emissions - Sampling and determination of selenium compounds in flue gas - 5/5/2014

GLASS IN BUILDING (TC 160)

ISO/DIS 18178, Glass in building - Laminated solar PV glass - 5/8/2014

LABORATORY GLASSWARE AND RELATED APPARATUS (TC 48)

ISO/DIS 4797, Laboratory glassware - Boiling flasks with conical ground joints - 5/7/2014, $40.00

OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO/DIS 11145, Optics and photonics - Lasers and laser-related equipment - Vocabulary and symbols - 5/7/2014, $77.00

ISO/DIS 8600-2, Endoscopes - Medical endoscopes and endoscopic accessories - Part 2: Particular requirements for rigid bronchoscopes - 5/1/2014, $67.00

PLASTICS (TC 61)

ISO/DIS 16620-1, Plastics - Determination of biobased content - Part 1: Test methods for determining the biobased-carbon content - 5/8/2014

ISO/DIS 16620-2, Plastics - Determination of biobased content - Part 2: Calculating and reporting the biobased-carbon content - 5/4/2014

ISO/DIS 16620-3, Plastics - Determination of biobased content - Part 3: Determination and reporting of biobased-plastic content - 5/5/2014

RUBBER AND RUBBER PRODUCTS (TC 45)

ISO 28017/DAmd1, Rubber hoses and hose assemblies, wire or textile reinforced, for dredging applications - Specification - Amendment 1 - 5/7/2014, $29.00

ISO/DIS 15825, Rubber compounding ingredients - Carbon black - Primary aggregate size determination from disk centrifuge photosedimentometry - 5/11/2014

SPORTS AND RECREATIONAL EQUIPMENT (TC 83)

ISO/DIS 11087, Alpine ski-bindings - Retention devices - Requirements and test methods - 5/5/2014

ISO/IEC JTC 1, Information Technology

ISO/IEC 19793:2008/PDAM 1, Information technology - Open Distributed Processing - Use of UML for ODP system specifications - Amendment 1 - 5/8/2014

ISO/IEC CD 29169, Information technology - The application of conformity assessment methodology to process capability and organizational maturity - 5/8/2014

ISO/IEC CD 33063, Information technology - Process assessment - Process assessment model for software testing - 5/8/2014

ISO/IEC CD 10373-5, Identification cards - Test methods - Part 5: Optical memory cards - 5/8/2014

ISO/IEC CD 11695-1, Identification cards - Optical memory cards - Holographic recording method - Part 1: Physical characteristics - 5/8/2014

ISO/IEC CD 11695-2, Identification cards - Optical memory cards - Holographic recording method - Part 2: Dimensions and location of accessible optical area - 5/8/2014

ISO/IEC CD 17839-2, Information technology - Identification cards - Biometric system on card - Part 2: Physical characteristics - 5/8/2014

ISO/IEC CD 18477-1, Information technology - JPEG extensions - Part 1: Core coding system specification - 5/11/2014

ISO/IEC CD 19776-3, Information technology - Computer graphics, image processing and environmental data representation - Extensible 3D (X3D) encodings - Part 3: Compressed binary encoding - 5/12/2014

OTHER

ISO/IEC DIS 17021-1, Conformity assessment - Requirements for bodies providing audit and certification of management systems - Part 1: Requirements - 3/6/2014

Newly Published ISO Standards

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

HEALTH INFORMATICS (TC 215)

ISO 18104:2014, Health informatics - Categorial structures for representation of nursing diagnoses and nursing actions in terminological systems, $165.00

ISO 21549-2:2014, Health informatics - Patient healthcard data - Part 2: Common objects, $114.00

ISO 21549-3:2014, Health informatics - Patient healthcard data - Part 3: Limited clinical data, $99.00

ISO 21549-4:2014, Health informatics - Patient healthcard data - Part 4: Extended clinical data, $123.00

NUCLEAR ENERGY (TC 85)

ISO 19238:2014, Radiological protection - Performance criteria for service laboratories performing biological dosimetry by cytogenetics, $156.00

OTHER

ISO 11664-6:2014, Colorimetry - Part 6: CIEDE2000 Colour-difference formula, $88.00

QUALITY MANAGEMENT AND CORRESPONDING GENERAL ASPECTS FOR MEDICAL DEVICES (TC 210)

IEC 62366/Amd1:2014, Medical devices -- Application of usability engineering to medical devices - Amendment 1, $22.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 15444-9/Amd5:2014, Information technology - JPEG 2000 image coding system: Interactivity tools, APIs and protocols - Amendment 5: UDP transport and additional enhancements to JPIP, $22.00

ISO/IEC 24759:2014, Information technology - Security techniques - Test requirements for cryptographic modules, $295.00

Proposed Foreign Government Regulations

Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations may be interested in proposed foreign technical regulations 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 or notifyus@nist.gov.

Information Concerning

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. Visit 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 or by e-mail from standards@scte.org.

PINS Correction

BSR/ASHRAE Standards

The PINS announcements in the January 31, 2014 edition of Standards Action were made prematurely for the following ASHRAE projects: BSR/ASHRAE Standard 215P-201x, BSR/ASHRAE Standard 216P-201x, and BSR/ASHRAE Standard 217P-201x. These will be relisted in the February 14, 2014 edition.

ANSI Accredited Standards Developers

Applications for Accreditation

International Safe Transit Association (ISTA)

Comment Deadline: March 10, 2014

The International Safe Transit Association (ISTA), a new ANSI Organizational Member in 2014, has submitted an application for accreditation as an ANSI Accredited Standards Developer (ASD) and proposed operating procedures for documenting consensus on ISTA-sponsored American National Standards. ISTA's proposed scope of standards activity is as follows:

> ISTA develops pre-shipment packaged-product performance tests that result in Pass/Fail assessment and are used to determine if a package system design will protect the product from the dynamic hazards of normal shipment in worldwide supply chain distribution.

To obtain a copy of ISTA's proposed operating procedures or to offer comments, please contact: Mr. A.J. Gruber, Vice-President, Technical, International Safe Transit Association, 1400 Abbott Road, Suite 160, East Lansing, MI 48823; phone: 517.333.3437, ext. 212; e-mail: ajgruber@ista.org. Please submit your comments to the ISTA by March 10, 2014, with a copy to the Recording Secretary, ExSC in ANSI's New York Office (E-mail: Jthompso@ANSI.org). As the proposed procedures are available electronically, the public review period is 30 days. You may view or download a copy of the ISTA's proposed operating procedures from ANSI Online 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%20Comment%2fANS%20Accreditation%20Actions&View=%7b21C60355%2dAB17%2d4CD7%2dA090%2dBABEEC5D7C60%7d.

National Electrical Manufacturers Association (NEMA)

Comment Deadline: March 10, 2014

The National Electrical Manufacturers Association (NEMA), an ANSI Organizational Member, has submitted an application for accreditation for a new NEMA-sponsored Accredited Standards Committee (ASC ESS) and proposed operating procedures for documenting consensus on ASC ESS-sponsored American National Standards. The new ASC's proposed scope of standards activity is as follows:

> This committee will develop, write, document the criteria, and approve documents which detail the terminology, testing, measurement, and evaluation criteria with which to express the performance, planning and installation parameters, and safety and environmental requirements of energy storage systems. An energy storage system includes the storage device or medium and any power conversion systems and integral battery or energy management systems through the point of common coupling. The energy storage systems covered by the scope of this committee are fixed stationary and grid-connected applications. The tests, measurements, and evaluation criteria developed shall be applicable to more than one type or category of system or energy storage medium.

To obtain a copy of ASC ESS's proposed operating procedures or to offer comments, please contact: Mr. Ryan Franks, Program Manager, National Electrical Manufacturers Association, 1300 North 17th Street, Suite 900, Rosslyn, VA 22209; phone: 703.841.3271; e-mail: ryan.franks@nema.org. Please submit your comments to the NEMA by March 10, 2014, with a copy to the Recording Secretary, ExSC in ANSI's New York Office (e-mail: Jthompso@ANSI.org). As the proposed procedures are available electronically, the public review period is 30 days. You may view or download a copy of the ASC ESS's proposed operating procedures from ANSI Online 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%20Comment%2fANS%20Accreditation%20Actions&View=%7b21C60355%2dAB17%2d4CD7%2dA090%2dBABEEC5D7C60%7d.

Approval of Reaccreditation

Cool Roof Rating Council (CRRC)

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the Cool Roof Rating Council (CRRC), an ANSI Organizational Member, has been approved under its recently revised operating procedures for documenting consensus on CRRC-sponsored American National Standards, effective February 3, 2014. For additional information, please contact: Ms. Alexis Wong, Cool Roof Rating Council, 449 15th Street, Suite 200, Oakland, CA 94612; phone: 510.482.4420, ext. 279; e-mail: awong@energy-solution.com.

International Organization for Standardization (ISO)

Call for Comments

ISO/DGUIDE 50, Safety aspects – Guidelines for child safety in standards and other specifications

Comment Deadline: February 13, 2014

The ISO COPOLCO WG for Guide 50 has produced a draft guide entitled ISO/DGUIDE 50 – Safety aspects – Guidelines for child safety in standards and other specifications. The scope is as follows:

> This Guide provides guidance to experts who develop and revise standards, specifications and similar publications. It aims to address potential sources of bodily harm to children from products, processes, structures, installations and services that they use, or with which they are likely to come into contact, even if not specifically intended for children.
>
> This Guide does not provide guidance on the prevention of intentional harm (e.g. child abuse) or non-physical forms of harm, such as psychological harm (e.g. intimidation).
>
> This Guide does not address the economic consequences of the above..

Organizations interested in submitting comments should contact Rachel Hawthorne at rhawthorne@ansi.org by February 13, 2014.

Call for International (ISO) Secretariat

ISO/TC 219 – Floor Coverings

ANSI has been informed by KATS (Republic of Korea), the ISO delegated secretariat, that they wish to relinquish the role of the secretariat. ISO/TC 219 operates under the following scope:

> Standardization in the field of textile, resilient and laminate floor coverings.
>
> Excluded: wood, ceramic, terrazzo, concrete and raised access type floorings

Information concerning the United States retaining the role of international secretariat may be obtained by contacting ANSI at isot@ansi.org.

Calls for US/TAG Participants

ISO/TC 34 – Food Products

The US TAG to the ISO Technical Committee on Food Products (TC 34) is in need of additional participants to represent all national interested parties in the development of international standards related to food and feed products. The work of the Committee spans the field of human and animal foodstuffs from production to consumption. Included in the scope of this field are animal/vegetable propagation materials, terminology, methods of test and analysis, food product specifications, food and feed safety, quality management and requirements for food packaging, storage and transportation.

Those interested in participation, please contact Brittany Helbling of AOCS at brittany.helbling@aocs.org for additional information.

ISO/TC 34/SC 16 – Horizontal Methods for Molecular Biomarker Analysis

The US TAG to the ISO Subcommittee on Horizontal Methods for Molecular Biomarker Analysis (TC 34/SC 16) is in need of additional participants to represent all national interested parties in the development of international standards related to biomarker testing methods as applied to foods, feeds, seeds and other propagules of food and feed crops. The work of the Subcommittee covers, but is not limited to, methodology for nucleic acids, proteins, varietal identification, and detection of plant pathogens.

Those interested in participation, please contact Brittany Helbling of AOCS at brittany.helbling@aocs.org for additional information.

ISO Proposal for a New Field of ISO Technical Activity

Domestic Gas Cooking Appliances

Comment Deadline: March 7, 2014

DIN (Germany) has submitted to ISO the attached proposal for a new field of ISO technical activity on Domestic gas cooking appliances, with the following scope statement:

Standardization in the field of Domestic Gas Cooking Appliances, considering the whole appliance: terminology, classification, constructional and performance characteristics, test methods and marking. Excluded from this scope are cook stoves covered by the standards being developed in ISO/TC 285.

Anyone wishing to review the new work item proposal can request a copy of the proposal by contacting ANSI's ISO Team via e-mail: isot@ansi.org with submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, March 7th, 2014.

Meeting Notices

International Window Cleaning Association (IWCA), I14 Accredited Standards Committee

The ASC I14 Window Cleaning Safety Committee with IWCA as Secretariat will hold its first meeting of 2014 on April 10 and 11 at the Hilton Chicago O'Hare Airport. Meetings are scheduled from 9:00am to 5:00pm each day. The Hilton Hotel is located at Chicago O'Hare International Airport, West O'Hare Avenue, Chicago, IL 60666.

The ASC I14 Committee scope is identifying accepted safe practices for window cleaning and the purpose of the standard is to provide safety to window cleaners and to others such as a passerby, where window cleaning operations are in progress, by specifying equipment with practical and adequate safety factors and features and requiring the safe use, design and maintenance of such equipment.

The 2001 version of the I14 standard was administratively withdrawn in 2011. The ASC I14 Committee with IWCA as Secretariat was reaccredited in October, 2013. The purpose of this meeting will be to consider membership applications and continue work on a new version of the standard.

The meeting is open to anyone interested in the scope and purpose of the standard. If you are interested in applying for membership and or attending the meeting as an observer, please contact committee secretary Mark Bennett at mbennett@offinger.com.

The IWCA will be accepting applications for membership between the dates of February 10, 2014 and March 11, 2014 so that they can be included in the meeting agenda. Applicants are required to be present at the meeting.

ANSI/ASSE Z359 Committee (ASC Z359) for Fall Protection and Fall Arrest

The next meeting of the ANSI/ASSE Z359 Committee (ASC Z359) for Fall Protection and Fall Arrest will be Tuesday, March 25 through Thursday, March 27, 2014 in Boulder, Colorado. The Committee's scope is the development and maintenance of standards addressing fall protection equipment and systems for climbing, man riding, work positioning, fall arrest, rescue and evacuation, and other fall hazard operations, excluding construction/demolition and sports activities. If you wish to attend, please contact Tim Fisher for more information:

Tim Fisher, CSP, CAE, CHMM, CPEA, ARM
Director, Practices and Standards
American Society of Safety Engineers (ASSE)
1800 East Oakton Street
Des Plaines, IL 60018
Phone: (847) 768-3411
E-mail: TFisher@ASSE.Org

Public Review Draft

Proposed Addendum w-ISC to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

Second Public Review (February 2014)
(Draft Shows Independent Substantive Change)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

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

FOREWORD

This addendum provides specific bicycle parking design requirements. Bicycles require far less infrastructure for roads and parking lots which in turn reduces stormwater runoff, mitigate heat island effect and preserves green space. Bicycles use no petroleum-based fuels and have no air emissions. When they are used for short trips, they further reduce the higher fuel use and emissions that occur during the first few minutes of driving. The use of bicycles also relieves traffic congestion and reduces noise pollution. Bicycling is ranked among the top three exercises for improving cardiovascular fitness and is on the rise around the country. For example, the New York City Dept. of Transportation's annual bicycle count into Manhattan indicate that cycling has grown by 116% between 2000 and 2008, including a 35% increase from 2007 to 2008. Establishing bicycling parking will accommodate greater bicycle use and therefore reduce the environmental impacts associated with vehicles.

Note to reviewers: This public review draft makes proposed independent substantive changes to the previous public review draft. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifically mention some other means of indicating 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 w to 189.1-2011 (Independent Substantive Change)

Add new definitions as follows:

***construction documents**:* see ANSI/ASHRAE/IES Standard 90.1.

design professional: see ANSI/ASHRAE/IES Standard 90.1.

occupant load: The number of persons for which the means of egress of a building or portion thereof is designed.

Add new Section 5.3.5.2 as follows:

5.3.5.2 Bicycle Parking.

5.3.5.2.1 Minimum Number of Spaces. Bicycle parking spaces shall be provided for at least 5 percent of the *occupant load* of each building but not less than two parking spaces. Occupants who are non-ambulatory, under restraint or under custodial care need not be included in the total occupant load for the building. *Building projects* with *dwelling units*

shall be provided with at least 0.5 bicycle parking spaces per bedroom for each building but not less than two parking spaces.

Exceptions:

1. *Building projects* with *dwelling units* that provide each unit with a private garage or private locked storage space of sufficient size to store a bicycle.
2. ~~Subject to the approval of the *AHJ*, the~~ The number of bicycle parking spaces shall be ~~permitted~~ allowed to be reduced ~~because of *building project* characteristics~~ subject to *AHJ* approval of a transportation plan, prepared by a *design professional*, that demonstrates the likelihood that building occupants will use public transportation and/or walk to the building project site.

5.3.5.2.2 Location. Not less than two bicycle parking spaces shall be located within 50 feet (15.2 m) of, and be visible from, the *building entrance* being served. All other bicycle parking spaces ~~The bicycle parking area(s)~~ shall be located inside the building or the nearest point of the bicycle parking area(s) shall be within 50 feet (15.2 m) of the *building entrance* being served. Bicycle parking shall not obstruct pedestrian access to the building.

5.3.5.2.3 Horizontal Parking Racks. Horizontal bicycle parking racks shall provide a space for each bicycle that is not less than 18 inches (305 mm) in width and not less than 72 inches (1829 mm) in length. Each space shall provide at least two points of contact between the bicycle frame and rack. ~~be not less than 36 inches (610 mm) apart based on center line dimensions~~. ~~The distance between rows of racks shall be at least 72 inches (1829 mm) measured between rack ends~~. ~~There shall be not less than 36 inches (914 mm) between rack ends and any fixed obstruction~~. Each space shall have access to a clear exit pathway not less than 36 inches (914 mm) in width.

5.3.5.2.4 Ability to Lock. Each bicycle parking space shall be provided with a securely mounted rack or other facilities for locking or securing a bicycle. A rack shall allow the locking of the frame and the front or rear wheel of the bicycle to the rack using a U-shaped shackle lock ~~with at least two points of contact between the bicycle and rack~~.

5.3.5.2.5 Security and Visibility. All bicycle parking spaces shall be~~:~~ visible from the entrance being served; secured in a locker, cage or room; or provided with valet service or security cameras. Signage shall be provided to identify parking that is not visible from the building entrance.

5.3.5.2.6 Documentation. *Construction documents* shall include plans and details ~~of that prescribed in~~ showing compliance with 5.3.5.2.1 through 5.3.5.2.5~~6~~.

Add the following informative reference to Appendix G:

Reference	Title	Section
Association of Pedestrian and Bicycle Professionals PO Box 93 Cedarburg, WI 53012, United States	Bicycle Parking Guidelines 2nd Edition, 2010	5.3.5.2

1-262-375-6180; www.apbp.org		

Public Review Draft

Proposed Addendum al to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

Second Public Review (February 2014)
(Draft Shows Independent Substantive Change)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

BSR/ASHRAE/USGBC/IES Addendum al to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings
Second Public Review Draft.

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

FOREWORD
These changes in this ISC are being proposed in response to comments submitted during the 1st Public Review of this addendum, which suggested allowing requirements in Standard 189.1 to match those in Standard 90.1-2013 for the opaque wall assemblies in Climate Zones 1 through 3.

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 al to 189.1-2011 (Independent Substantive Change)

Modify Section 7.4.2 as follows:

7.4.2 Building Envelope. The *building envelope* shall comply with Section 5 of ANSI/ASHRAE/IES Standard 90.1 with the following modifications and additions:

7.4.2.1 Building Envelope Requirements. The *building envelope* shall comply with the requirements in Tables 5.5-1 through 5.5-8 of ANSI/ASHRAE/IES Standard 90.1 with the following modifications to values in each table. For the opaque elements, each U-factor, C-factor, and F-factor in Tables 5.5-4 through 5.5-8 shall be reduced by 10 percent. The "Insulation Min. R-Value" column in Tables 5.5-~~4~~1 through 5.5-8 of ANSI/ASHRAE/IES Standard 90.1 shall not apply. For *vertical fenestration*, each U-factor shall be reduced by 10 percent. For east-oriented and west-oriented *vertical fenestration*, each SHGC in Tables 5.5-4 through 5.5-8 shall be reduced by 10 percent.

Note 1: U-factors, C-factors, and F-factors for many common assemblies are provided in ANSI/ASHRAE/IES Standard 90.1, Appendix A.
Note 2: Section 5.3.2.3 of this standard includes additional provisions related to roofs.

Exceptions:
1.) The U-factor, C-factor, or F-factor shall not be modified where the corresponding R-value requirement is designated as "NR" (no requirement) in ANSI/ASHRAE/IES Standard 90.1 Tables 5.5-~~4~~1 through 5.5-8.
2.) The SHGC shall not be modified where the SHGC requirement is designated as "NR" (no requirement) in ANSI/ASHRAE/IES Standard 90.1 Tables 5.5-~~4~~1 through 5.5-8.
3.) Spaces that meet the requirements of Section 8.3.4 regardless of space area are exempt from the *SHGC* criteria for *skylights*.

Renumber subsequent sections.

Public Review Draft

Proposed Addendum bg to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (February 2014)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

BSR/ASHRAE/USGBC/IES Addendum bg to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings
First Public Review Draft.

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

FOREWORD

This addendum adds a section on Landscape Design to section 5 of the standard (Site Sustainability). The new section draws largely on requirements already included in the chapter, but also adds new requirements intended to foster native plants and to maintain habitat for birds and insects.

This addendum builds upon changes to ASHRAE 189.1 2011 that were made in addendum u, which has been approved for publication but is not yet publicly available. That addendum is attached to this public review draft however.

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 bg to 189.1-2011

Modify definitions in Section 3.2 as follows:

Plants:

a. ***adapted plants*:** plants that reliably grow well in a given habitat with minimal attention from humans in the form of winter protection, pest protection, irrigation, or fertilization. Adapted plants are considered to be low maintenance but not invasive. Appropriate plants may be native or non-native to the site.
b. ***invasive plants:*** Species of plants that are not native to the *building project site* and that cause or are likely to cause environmental harm. At a minimum, the list of invasive species for a building project site includes plants included in city, county, and regional lists and State and Federal Noxious Weeds laws.
c. ***native plants:*** ~~*plants* that adapted to a given area during a defined time period and are not invasive. In America, the term often refers to *plants* growing in a region to the time of settlement by people of European descent.~~ Plants recognized as native species by applicable city, county, state, or regional governmental bodies. Alternatively, plant species, hybrids, varieties, and cultivars that occur or occurred without human introduction in the *site's* US EPA Level III ecoregion.

Modify Section 5.3.5 as follows:

5.3.5 ~~Plants~~ Landscape Design The installed landscape shall comply with the following requirements:

~~5.3.5.2 **Greenfield Sites.** On a *greenfield site:*~~

a. on a *greenfield site*, ~~where~~ if more than 20% of the area of the predevelopment *site* has existing *native plants* or *adapted plants*, a minimum of 20% of the area of existing *native plants* or *adapted plants* shall be retained.

b. for all sites: a minimum of 10% of the total vegetated area shall be restricted to *native plants*. ~~where 20% or less of the area of the predevelopment *site* has existing *native plants* or *adapted plants*, a minimum of 20% of the *site* shall be developed or retained as vegetated area. Such vegetated areas include bioretention facilities, rain gardens, filter strips, grass swales, vegetated level spreaders, constructed *wetlands*, planters, and open space with plantings.~~

c. for all sites: ~~A~~ a minimum of 60% of ~~such~~ the total vegetated area shall ~~consist of~~ be restricted to *bio-diverse plantings* of *native plants* and ~~/or~~ *adapted plants* other than *turfgrass*. The area of dedicated athletic fields, golf courses and fire lanes shall not be included in the calculations of the total vegetated area.

d. ~~**5.3.5.1 Invasive Plants.**~~ *Invasive plants* shall be removed from the *building project site* and destroyed or disposed of in a ~~land fill~~ landfill. *Invasive plants* shall not be planted on the *building project site*.

Add to Section 11 Normative References:

Reference	Title	Section
United States Environmental Protection Agency (EPA) National Health and Environmental Effects Research Laboratory Corvallis, Oregon http://www.epa.gov/wed/pages/ecoregions/level_iii_iv.htm, April 2013	Level III Ecoregions of the Continental United States	3.2

Public Review Draft

Proposed Addendum bk to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (February 2014)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

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

FOREWORD

This revision adds a fan-efficiency requirement to Standard 189.1 that is slightly more stringent than the fan-efficiency section included in Standard 90.1-2013. The only difference in requirements between Standard 90.1-2013 and this proposed revision to Standard 189.1 is to increase the fan-selection stringency from within 15 percentage points of the rated peak total efficiency to within 10 percentage points. This will result in applicable fans being sized and selected to operate more often near the peak total efficiency of the fan. The net effect generally will be larger fans for a given duty, which will run more efficiently with relatively fast payback through energy savings. Lifecycle economics will also be better through longer fan life, reduced maintenance, and quieter operation; all of these outcomes are consistent with goals for high-performance buildings.

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 bk to 189.1-2011

Revise the Standard as follows

7.4.3.5 Fan System Power ~~Limitation~~ and Efficiency

7.4.3.5.1 Fan System Power Limitation. ~~Fan System Power Limitation.~~ Systems shall have fan power limitations 10% below limitations specified in Table 6.5.3.1-1~~.1A~~ of ANSI/ASHRAE/IES Standard 90.1. This requirement supersedes the requirement in Section 6.5.3.1 and Table 6.5.3.1-1~~.1A~~ of ANSI/ASHRAE/IES Standard 90.1. All exceptions in Section 6.5.3.1 of ANSI/ASHRAE/IES Standard 90.1 shall apply.

7.4.3.5.2 Fan Efficiency. The fan efficiency requirements defined in Section 6.5.3.1.3 of ANSI/ASHRAE/IES Standard 90.1 shall be used except that the total efficiency of the fan at the design point of operation shall be within 10 percentage points of the maximum total efficiency of the fan. All exceptions in Section 6.5.3.1.3 of ANSI/ ASHRAE/IES Standard 90.1 shall apply.

Public Review Draft

Proposed Addendum bl to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (February 2014)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

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

FOREWORD

This addendum updates and expands Table C-13 for commercial refrigerators and freezers to the much broader range of Commercial Refrigeration Equipment. This proposal replaces Table C-16, which was added by Addendum z to Standard 189.1-2011,, and combines this update with the updated commercial refrigerator and freezer requirements from Table C-13. This combination is desirable as it groups all of the equipment together that is regulated by the DOE Commercial Refrigeration appliance efficiency standard. Addendum z, has been approved for publication but is not yet publicly available. It is attached to this addendum for informative purposes only; it is not subject to public review comment.

Addendum C is only referenced when a designer is using the Alternate Renewables Approach, with less renewable energy and higher levels of equipment efficiency. The values proposed here are the values proposed by USDOE as part of the NOPR (notice of proposed regulation) for commercial refrigeration equipment. The technical and economic rationale for these values can be found at http://www1.eere.energy.gov/buildings/appliance_standards/rulemaking.aspx/ruleid/27

After 2017, the Commercial Refrigeration Equipment efficiencies in the Federal standard will be the required minimum efficiencies for all products sold in the United States. In the meantime, Standard 189.1, as a high performance standard, can require these efficiencies for those buildings where the prescriptive approach is followed and one chooses the Alternate Renewables Approach instead of the Standard Renewables Approach. Thus Standard 189.1 will be at least 3 years in advance of the minimum standards and help prepare the market for their eventual implementation.

In the normative references we have identified that Title 10 Part 431 is a reference to the Code of Federal Regulations, thus making this reference easier to find.

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 bl to 189.1-2011

Replace Tables C-13 and C-16 as follows (IP and SI units) and renumber Tables and references to Tables as appropriate:

~~**TABLE C-13 Commercial Refrigerator and Freezers (I-P)**~~

~~Equipment Type~~	~~Application~~	~~Energy Use Limit (kW/h per day)~~
~~Refrigerators with solid doors~~	~~Holding temperature~~	~~0.10 V + 2.04~~
~~Refrigerators with transparent doors~~		~~0.12 V + 3.34~~
~~Freezers with solid doors~~		~~0.40 V + 1.38~~
~~Freezers with transparent doors~~		~~0.75 V + 4.10~~
~~Refrigerators/freezers with solid doors~~		~~The greater of 0.12 V + 3.34 or 0.70~~
~~Commercial refrigerators~~	~~Pulldown~~	~~0.126 V + 3.51~~

~~V means the chiller or frozen compartment volume (ft^3) as defined in the Association of Home Appliance Manufacturers Standard HRF1-1979~~

Table C-13 Commercial Refrigeration Minimum Efficiency Requirements (IP Units)

Equipment Type				Energy Use Limits (kWh/day) [b,c]
Equipment Class [a]	Family Code	Operating Mode	Rating Temperature	
VOP.RC.M	Vertical Open	Remote Condensing	Medium Temperature	0.61 × TDA + 3.03 [d]
SVO.RC.M	Semivertical Open	Remote Condensing	Medium Temperature	0.63 × TDA + 2.41 [d]
HZO.RC.M	Horizontal Open	Remote Condensing	Medium Temperature	0.35 × TDA + 2.88 [d]
VOP.RC.L	Vertical Open	Remote Condensing	Low Temperature	2.11 × TDA + 6.36 [d]
HZO.RC.L	Horizontal Open	Remote Condensing	Low Temperature	0.57 × TDA + 6.88 [d]
VCT.RC.M	Vertical Transparent Door	Remote Condensing	Medium Temperature	0.08 × TDA + 0.72
VCT.RC.L	Vertical Transparent Door	Remote Condensing	Low Temperature	0.43 × TDA + 2.03
SOC.RC.M	Service Over Counter	Remote Condensing	Medium Temperature	0.39 × TDA + 0.08
VOP.SC.M	Vertical Open	Self Contained	Medium Temperature	1.51 × TDA + 4.09 [d]

Equipment Type				Energy Use Limits (kWh/day) [b,c]
Equipment Class[a]	Family Code	Operating Mode	Rating Temperature	
SVO.SC.M	Semivertical Open	Self Contained	Medium Temperature	1.5 × TDA + 3.99[d]
HZO.SC.M	Horizontal Open	Self Contained	Medium Temperature	0.75 × TDA + 5.44[d]
HZO.SC.L	Horizontal Open	Self Contained	Low Temperature	1.92 × TDA + 7.08[d]
VCT.SC.I	Vertical Transparent Door	Self Contained	Ice Cream	0.52 × TDA + 2.56
VCS.SC.I	Vertical Solid Door	Self Contained	Ice Cream	0.35 × V + 0.81
HCT.SC.I	Horizontal Transparent Door	Self Contained	Ice Cream	0.49 × TDA + 0.37
SVO.RC.L	Semivertical Open	Remote Condensing	Low Temperature	2.11 × TDA + 6.36[d]
VOP.RC.I	Vertical Open	Remote Condensing	Ice Cream	2.68 × TDA + 8.08[d]
SVO.RC.I	Semivertical Open	Remote Condensing	Ice Cream	2.68 × TDA + 8.08[d]
HZO.RC.I	Horizontal Open	Remote Condensing	Ice Cream	0.72 × TDA + 8.74[d]
VCT.RC.I	Vertical Transparent Door	Remote Condensing	Ice Cream	0.51 × TDA + 2.37
HCT.RC.M	Horizontal Transparent Door	Remote Condensing	Medium Temperature	0.14 × TDA + 0.11
HCT.RC.L	Horizontal Transparent Door	Remote Condensing	Low Temperature	0.3 × TDA + 0.23
HCT.RC.I	Horizontal Transparent Door	Remote Condensing	Ice Cream	0.35 × TDA + 0.27
VCS.RC.M	Vertical Solid Door	Remote Condensing	Medium Temperature	0.1 × V + 0.24
VCS.RC.L	Vertical Solid Door	Remote Condensing	Low Temperature	0.21 × V + 0.5
VCS.RC.I	Vertical Solid Door	Remote Condensing	Ice Cream	0.25 × V + 0.58
HCS.RC.M	Horizontal Solid Door	Remote Condensing	Medium Temperature	0.1 × V + 0.24
HCS.RC.L	Horizontal Solid Door	Remote Condensing	Low Temperature	0.21 × V + 0.5
HCS.RC.I	Horizontal Solid Door	Remote Condensing	Ice Cream	0.25 × V + 0.58
SOC.RC.L	Service Over Counter	Remote Condensing	Low Temperature	0.83 × TDA + 0.18
SOC.RC.I	Service Over Counter	Remote Condensing	Ice Cream	0.97 × TDA + 0.21

Equipment Type				Energy Use Limits (kWh/day) [b,c]
Equipment Class[a]	Family Code	Operating Mode	Rating Temperature	
VOP.SC.L	Vertical Open	Self Contained	Low Temperature	3.79 × TDA + 10.26[d]
VOP.SC.I	Vertical Open	Self Contained	Ice Cream	4.81 × TDA + 13.03[d]
SVO.SC.L	Semivertical Open	Self Contained	Low Temperature	3.77 × TDA + 10.01[d]
SVO.SC.I	Semivertical Open	Self Contained	Ice Cream	4.79 × TDA + 12.72[d]
HZO.SC.I	Horizontal Open	Self Contained	Ice Cream	2.44 × TDA + 9.0[d]
SOC.SC.I	Service Over Counter	Self Contained	Ice Cream	1.35 × TDA + 0.29
HCS.SC.I	Horizontal Solid Door	Self Contained	Ice Cream	0.35 × V + 0.81
VCS.SC.M	Vertical Solid Door	Self Contained	Medium Temperature	0.03 × V + 0.53
VCT.SC.M	Vertical Transparent Door	Self Contained	Medium Temperature	0.04 × V + 1.07
VCS.SC.L	Vertical Solid Door	Self Contained	Low Temperature	0.13 × V + 0.43
VCT.SC.L	Vertical Transparent Door	Self Contained	Low Temperature	0.22 × V + 1.21
VCS.SC.M/L	Vertical Solid Door Refrigerator/Freezer	Self Contained	Medium/Low Temperature	See footnote e
PD.SC.M	Pull down - Vertical Transparent Door	Self Contained	Medium Temperature	0.03 × V + 0.83

[e a] 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 = semivertical 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) or PD = Pull Down with Vertical Transparent Door

(BB) An operating mode code (RC = remote condensing or SC = self contained)

(CC) A rating temperature code (M = medium temperature [38°F], L = low temperature [0°F], ~~or~~ I = ice-cream temperature [15°F] or M/L = combined medium and low temperature in hybrid or combination refrigerator/freezers).

For example, "VOP.RC.M" refers to the "vertical open, remote condensing, medium temperature" equipment class.

[b] Calculated according to 10 CFR 431

[c] V (ft^3) is the volume of the case, as measured in AHRI Standard 1200, Appendix C.
TDA (ft^2) is the total display area of the case, as measured in AHRI Standard 1200, Appendix D.

[d] Open refrigerated display cases shall be covered by field-installed strips, curtains, or doors

[e] Calculated according to 10CFR part 431 using the values from this table for combinations equipment types and temperatures

~~**TABLE C-13 Commercial Refrigerator and Freezers (SI)**~~

~~Equipment Type~~	~~Application~~	~~Energy Use Limit (kW/h per day)~~
~~Refrigerators with solid doors~~	~~Holding temperature~~	~~2.831 V + 57.75~~
~~Refrigerators with transparent doors~~		~~3.40V + 94.55~~
~~Freezers with solid doors~~		~~11.32 V + 39.07~~
~~Freezers with transparent doors~~		~~21.23 V + 116.07~~
~~Refrigerators/freezers with solid doors~~		~~The greater of 3.40 V + 94.55 or 19.82~~
~~Commercial refrigerators~~	~~Pulldown~~	~~1.26 V + 99.37~~

~~V means the chiller or frozen compartment volume (Liters) as defined in the Association of Home Appliance Manufacturers Standard HRF1-1979~~

Table C-13 Commercial Refrigeration Minimum Efficiency Requirements (SI Units)

Equipment Type				Energy Use Limits (kWh/day) [b, c]
Equipment Class [a]	Family Code	Operating Mode	Rating Temperature	
VOP.RC.M	Vertical Open	Remote Condensing	Medium Temperature	6.56 × TDA + 3.03[d]
SVO.RC.M	Semivertical Open	Remote Condensing	Medium Temperature	6.78 × TDA + 2.41[d]
HZO.RC.M	Horizontal Open	Remote Condensing	Medium Temperature	3.77 × TDA + 2.88
VOP.RC.L	Vertical Open	Remote Condensing	Low Temperature	22.70 × TDA + 6.36[d]
HZO.RC.L	Horizontal Open	Remote Condensing	Low Temperature	6.13 × TDA + 6.88[d]
VCT.RC.M	Vertical Transparent Door	Remote Condensing	Medium Temperature	0.86 × TDA + 0.72
VCT.RC.L	Vertical Transparent Door	Remote Condensing	Low Temperature	4.63 × TDA + 2.03
SOC.RC.M	Service Over Counter	Remote Condensing	Medium Temperature	4.20 × TDA + 0.08

Equipment Type				Energy Use Limits (kWh/day) [b, c]
Equipment Class [a]	Family Code	Operating Mode	Rating Temperature	
VOP.SC.M	Vertical Open	Self Contained	Medium Temperature	16.25 × TDA + 4.09[d]
SVO.SC.M	Semivertical Open	Self Contained	Medium Temperature	16.14 × TDA + 3.99[d]
HZO.SC.M	Horizontal Open	Self Contained	Medium Temperature	8.07 × TDA + 5.44[d]
HZO.SC.L	Horizontal Open	Self Contained	Low Temperature	20.66 × TDA + 7.08[d]
VCT.SC.I	Vertical Transparent Door	Self Contained	Ice Cream	5.60 × TDA + 2.56
VCS.SC.I	Vertical Solid Door	Self Contained	Ice Cream	12.36 × V + 0.81
HCT.SC.I	Horizontal Transparent Door	Self Contained	Ice Cream	5.27 × TDA + 0.37
SVO.RC.L	Semivertical Open	Remote Condensing	Low Temperature	22.70 × TDA + 6.36[d]
VOP.RC.I	Vertical Open	Remote Condensing	Ice Cream	28.84 × TDA + 8.08[d]
SVO.RC.I	Semivertical Open	Remote Condensing	Ice Cream	28.84 × TDA + 8.08[d]
HZO.RC.I	Horizontal Open	Remote Condensing	Ice Cream	7.75 × TDA + 8.74[d]
VCT.RC.I	Vertical Transparent Door	Remote Condensing	Ice Cream	5.49 × TDA + 2.37
HCT.RC.M	Horizontal Transparent Door	Remote Condensing	Medium Temperature	1.51 × TDA + 0.11
HCT.RC.L	Horizontal Transparent Door	Remote Condensing	Low Temperature	3.23 × TDA + 0.23
HCT.RC.I	Horizontal Transparent Door	Remote Condensing	Ice Cream	3.77 × TDA + 0.27
VCS.RC.M	Vertical Solid Door	Remote Condensing	Medium Temperature	3.53 × V + 0.24
VCS.RC.L	Vertical Solid Door	Remote Condensing	Low Temperature	7.42 × V + 0.50
VCS.RC.I	Vertical Solid Door	Remote Condensing	Ice Cream	8.83 × V + 0.58
HCS.RC.M	Horizontal Solid Door	Remote Condensing	Medium Temperature	3.53 × V + 0.24
HCS.RC.L	Horizontal Solid Door	Remote Condensing	Low Temperature	7.42 × V + 0.50
HCS.RC.I	Horizontal Solid Door	Remote Condensing	Ice Cream	8.83 × V + 0.58

Equipment Type				Energy Use Limits (kWh/day) [b, c]
Equipment Class [a]	Family Code	Operating Mode	Rating Temperature	
SOC.RC.L	Service Over Counter	Remote Condensing	Low Temperature	8.93 × TDA + 0.18
SOC.RC.I	Service Over Counter	Remote Condensing	Ice Cream	10.44 × TDA + 0.21
VOP.SC.L	Vertical Open	Self Contained	Low Temperature	40.78 × TDA + 10.26[d]
VOP.SC.I	Vertical Open	Self Contained	Ice Cream	51.76 × TDA + 13.03[d]
SVO.SC.L	Semivertical Open	Self Contained	Low Temperature	40.57 × TDA + 10.01[d]
SVO.SC.I	Semivertical Open	Self Contained	Ice Cream	51.54 × TDA + 12.72[d]
HZO.SC.I	Horizontal Open	Self Contained	Ice Cream	26.25 × TDA + 9.00[d]
SOC.SC.I	Service Over Counter	Self Contained	Ice Cream	14.53 × TDA + 0.29
HCS.SC.I	Horizontal Solid Door	Self Contained	Ice Cream	12.36 × V + 0.81
VCS.SC.M	Vertical Solid Door	Self Contained	Medium Temperature	1.06 × V + 0.53
VCT.SC.M	Vertical Transparent Door	Self Contained	Medium Temperature	1.41 × V + 1.07
VCS.SC.L	Vertical Solid Door	Self Contained	Low Temperature	4.59 × V + 0.43
VCT.SC.L	Vertical Transparent Door	Self Contained	Low Temperature	7.77 × V + 1.21
VCS.SC.M/L	Vertical Solid Door Refrigerator/Freezer	Self Contained	Medium/Low Temperature	See footnote e
PD.SC.M	Pull down - Vertical Transparent Door	Self Contained	Medium Temperature	1.06 × V + 0.83

[a] 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 = semivertical 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) or PD = Pull Down with Vertical Transparent Door

(BB) An operating mode code (RC = remote condensing or SC = self contained)

(CC) A rating temperature code (M=medium temperature (3 °C), L=low temperature (-18 °C), ~~or~~ I=ice-cream temperature (-9 °C) or M/L = combined medium and low temperature in hybrid or combination refrigerator/freezers).

For example, "VOP.RC.M" refers to the "vertical open, remote condensing, medium temperature" equipment class.

[b] Calculated according to 10 CFR 431

[c] V (m^3) is the volume of the case, as measured in AHRI Standard 1200, Appendix C.
TDA (m^2) is the total display area of the case, as measured in AHRI Standard 1200, Appendix D.

[d] Open refrigerated display cases shall be covered by field-installed strips, curtains, or doors

[e] Calculated according to 10CFR part 431 using the values from this table for combinations equipment types and temperatures

11. NORMATIVE REFERENCES

Section numbers indicate where the reference occurs in this document.

Reference	Title	Section
United States Department of Energy (USDOE) Energy Information Administration Washington, DC 20585, United States 1-202-586-5000; www.eia.doe.gov/emeu/cbecs/contents.html and http://tonto.eia.doe.gov/state		
EIA Average Energy Prices	State and U.S. Historical Data	Appendix D
Code of Federal Regulations Title 10 – Energy Chapter II – Department of Energy – Part 430 (10CFR Part 430)	Energy Conservation Program for Consumer Products	Appendix C
Code of Federal Regulations Title 10 – Energy Chapter II – Department of Energy – Part 431 (10CFR Part 431)	Energy Efficiency Program for Certain Commercial and Industrial Equipment	Appendix C

BSR/ASHRAE/USGBC/IES Addendum bl to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings
First Public Review Draft.

Informative Background Material Addendum Z
(Addendum al would replace all of addendum z. Please see the attached file included in the Online Comment Database for reference. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Public Review Draft

Proposed Addendum bm to Standard 189.1-2011

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (February 2014)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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

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

BSR/ASHRAE/USGBC/IES Addendum bm to ANSI/ASHRAE/USGBC/IES Standard 189.1-2011, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings First Public Review Draft.

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

FOREWORD

This addendum adds a definition for "salvaged material" and clarifies salvaged material requirements in Section 9.4.1.1. It also broadens the application of Section 9.4.1 to include more building components, and clarifies and updates the reference to the USDA BioPeferred Program.

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 bm to 189.1-2011

Add definition for "salvaged" as follows:

salvaged material: material, component or assembly removed in a whole form from a structure or site in which it was *permanently installed* and subsequently reused in the building project.

Revise Section 9.4.1 as follows:

9.4.1 Reduced Impact Materials. The *building project* shall contain materials that comply with Section 9.4.1.1, 9.4.1.2, or 9.4.1.3. ~~Components of mechanical, electrical, plumbing, fire safety systems, and transportation devices shall not be included in the calculations except for piping, plumbing fixtures, ductwork, conduit, wiring, cabling, and elevator and escalator framing.~~ Calculations shall only include materials *permanently installed* in the project. A value of 45% of the total construction cost ~~is allowed~~ shall be permitted to be used in lieu of the actual total cost of materials.

9.4.1.1 Recycled Content and Salvaged Material Content. The sum of the *recycled content* and the *salvaged material* content shall constitute a minimum of 10%, based on cost, of the total materials in the *building project*.

9.4.1.1.1 Recycled Content. The *recycled content* of a material shall be the *post-consumer recycled content* plus one-half of the *pre-consumer recycled content*, determined by weight (mass). The recycled fraction of the material in a product or an assembly shall then be multiplied by the cost of the product or assembly to determine its contribution to the 10% requirement.

The annual average industry values, by country of production, for the *recycled content* of steel products manufactured in basic oxygen furnaces and electric arc furnaces ~~are allowed~~ shall be permitted to be used as the *recycled content* of the steel. For the purpose of calculating the *recycled content* contribution of concrete, the constituent materials in concrete (e.g., the cementitious materials, aggregates, and water) ~~are allowed~~ shall be permitted to be treated as separate components and calculated separately.

9.4.1.1.2 Salvaged Material Content. ~~For purposes of this standard, a salvaged material is a material that has been removed in a whole form from a structure and reused in the *building project.*~~ The *salvaged material* content shall be determined based on the actual cost of the *salvaged material* or the cost of a comparable alternative component material.

9.4.1.2 Regional Materials. A minimum of 15% of building materials or products used, based on cost, shall be regionally extracted/harvested/recovered or manufactured within a radius of 500 mi (800 km) of the project *site*. If only a fraction of a product or material is extracted/harvested/recovered or manufactured locally, then only that percentage (by weight) shall contribute to the regional value.

Exception: For building materials or products shipped in part by rail or water, the total distance to the project shall be determined by weighted average, whereby that portion of the distance shipped by rail or water shall be multiplied by 0.25 and added to that portion not shipped by rail or water, provided that the total does not exceed 500 mi (800 km)

9.4.1.3 Biobased Products. A minimum of 5% of building materials used, based on cost, shall be *biobased products*. *Biobased products* shall 1) comply with the minimum biobased contents of the USDA's BioPreferred Program, 2) contain the "USDA Certified *Biobased Product*" label, or 3) be composed of solid wood, engineered wood, bamboo, wool, cotton, cork, agricultural fibers, or other biobased materials with at least 50% biobased content.

9.4.1.3.1 Wood Building Components. Wood building components including, but not limited to, structural framing, sheathing, flooring, sub-flooring, wood window sash and frames, doors, and architectural millwork used to comply with this requirement shall contain not less than 60% certified wood content tracked through a chain of custody process either by physical separation or percentage-based approaches, or wood that qualifies as a *salvaged material*. ~~Acceptable c~~Certified wood content documentation shall be provided by sources certified through a forest certification system with principles, criteria, and standards developed using ISO/IEC Guide 59, or the WTO Technical Barriers to Trade. Wood building components from a *vendor* ~~are allowed~~ shall be permitted to comply when the annual average amount of certified wood products purchased by the *vendor*, for which they have chain of custody *verification* not older than two years, is 60% or greater of their total annual wood products purchased.

ESD S20.20-201x

The following additions/changes were made to ESD S20.20-201x following the initial public review period and are being re-circulated for a 30-day public review.

FOREWORD

This standard covers the requirements necessary to design, establish, implement and maintain an Electrostatic Discharge (ESD) Control Program for activities that manufacture, process, assemble, install, package, label, service, test, inspect or otherwise handle electrical or electronic parts, assemblies and equipment susceptible to damage by electrostatic discharges greater than or equal to 100 volts Human Body Model (HBM) and 200 volts Charged Device Model (CDM). The CDM voltage level as used in this document is based on managing process essential insulators to mitigate induced voltages on devices that could lead to damage. HBM and CDM testing is required for device qualification per JEDEC JESD47. In addition, this standard covers the requirements for ungrounded conductors; if the rules of this standard are followed devices ~~that are susceptible to~~with a ~~20 volts~~ Machine Model (MM) robustness of 20 V or more (which is intrinsically ~~be~~ given by 1000 V HBM) can easily be handled. The reference to Machine Model is retained in this standard for the historical association of the MM withstand voltage of devices to charged isolated conductors. The Machine Model test is no longer required for qualification of devices and test data may not be available, but are ~~intrinsicically~~intrinsically given by the HBM robustness. The ESD robustness of devices are now fully characterized by HBM and CDM with the CDM event also describing the metal to metal contact that was formerly associated with MM. This document covers the ESD Control Program requirements for setting up a program to handle ESD sensitive (ESDS) items, based on the historical experience of both military and commercial organizations. References include ESD Association, U.S. Military and ANSI approved standards for material properties and test methods. The fundamental ESD control principles that form the basis of this document are:

A. All conductors in the environment, including personnel, shall be bonded or electrically connected and attached to a known ground or contrived ground (as on shipboard or on aircraft). This attachment creates an equipotential balance between all items and personnel. Electrostatic protection can be maintained at a potential above a “zero” voltage ground potential as long as all items in the system are at the same potential.
B. Necessary non-conductors (i.e. process-required insulators) in the environment cannot lose their electrostatic charge by attachment to ground. Ionization systems provide neutralization of charges on these necessary non-conductive items (circuit board materials and some device packages are examples of necessary non-conductors). Assessment of the ESD hazard created by electrostatic charges on the necessary non-conductors in the work place is required to ensure that appropriate actions are implemented, commensurate with risk to ESDS items.
C. Transportation of ESDS items outside an ESD Protected Area (hereafter referred to as “EPA”) requires enclosure in static protective materials, although the type of material depends on the situation and destination. Inside an EPA, low charging and static dissipative materials may provide adequate protection. Outside an EPA, low charging and static discharge shielding materials are recommended. While these materials are not discussed in the document, it is important to recognize the differences in their application. For more clarification see ANSI/ESD S541.

2.0 SCOPE

This document applies to activities that manufacture, process, assemble, install, package, label, service, test, inspect, transport or otherwise handle electrical or electronic parts, assemblies and equipment susceptible to damage by electrostatic discharges greater than or equal to 100 volts HBM, 200 volts CDM, and 20 volts ~~MM~~on isolated charged conductors. Activities that handle items that are susceptible to lower withstand voltages may require additional control elements or adjusted limits. Processes designed to handle items that have an ESD sensitivity to lower withstand voltages can still claim compliance to this standard. This document does not apply to electrically initiated explosive devices, flammable liquids or powders.

NOTE: The CDM voltage level as used in this document is based on managing process essential insulators to mitigate induced voltages on devices that could lead to damage.

NOTE: The 20 volts on isolated charge conductors was historically represented by MM. The 20 volts is derived from the Industry Council White Paper 1. All devices that have HBM protection will inherently have at least 20 volts MM protection. Device characterization of MM is not required. (See http:// www.esdindustrycouncil.org/ic/en/documents/5-presentation-on-machine-model-qualification-issues-pdf.)

8.2 Personnel Grounding

All personnel shall be bonded or electrically connected to the grounding / equipotential bonding system when handling ESDS items. The personnel grounding method(s) shall be selected from Table 2.

When personnel are seated at ESD protective workstations, they shall be connected to the grounding / equipotential bonding system via a wrist strap.

For standing operations, personnel shall be grounded via a wrist strap or by a footwear/flooring system meeting the requirements of Table 2. When garments are used to achieve personnel grounding, it shall be documented in the ESD Control Program Plan. The garment shall have electrical continuity from one sleeve to the other and must also meet the wrist strap resistance requirements defined in Table 2 and the groundable static control garment system in Table 3.

Table 2. Personnel Grounding Requirement

Technical Requirement	Product Qualification[1]		Compliance Verification	
	Test Method(s)	Required Limit(s)	Test Method(s)	Required Limit(s)
Wrist Strap System	ANSI/ESD S1.1 (Section ~~5~~6.11)	< 3.5×10^7 ohms	ESD TR53 Wrist Strap Section	< 3.5×10^7 ohms
Footwear / Flooring System[2] – (Both limits must be met)	ANSI/ESD STM97.1	< 1.0×10^9 ohms	ESD TR53 Footwear Section	< 1.0×10^9 ohms[3]
	ANSI/ESD STM97.2	< 100 volts Peak	ESD TR53 Flooring Section	< 1.0×10^9 ohms[6]

[1] Product qualification is normally conducted during the initial selection of ESD control products and materials. Any of the following methods can be used: product specification review, independent laboratory evaluation or internal laboratory evaluation.

[2] For ESD control footwear/flooring systems that were installed before the adoption of this standard, on-going compliance verification records can be used as evidence of product qualification.

[3] The required limit of < 1.0×10^9 ohm is the "maximum" allowed value. The user should document the resistance values that were measured for product qualification for the footwear and the floor to comply with the < 100 volts body voltage generation and use these resistances for compliance verification.

Table 3. EPA ESD Control Items

Technical Requirement	ESD Control Item	Product Qualification[4]		Compliance Verification	
		Test Method	Required Limit(s)[5]	Test Method	Required Limit(s)
EPA	Worksurface[6,7] (Qualification can be done by either Test Method)	ANSI/ESD S4.1	Resistance Point to Point < 1 x 10^9 ohms	ESD TR53 Worksurface Section	Resistance Point to Ground < 1 x 10^9 ohms
			Resistance Point to Groundable Point < 1 x 10^9 ohms		
		ANSI/ESD STM4.2	< 200 volts		
	Wrist Strap	ANSI/ESD S1.1	0.8 x 10^6 to 1.2 x 10^6 ohms	For compliance verification of a Wrist Strap System, see Table 2.	
	Wristband	ANSI/ESD S1.1	Interior < 1 x 10^5 ohms		
			Exterior > 1 x 10^7 ohms		
	Personnel Ground wrist strap Connection (non-monitored)	ANSI/ESD S6.1	Resistance Point to Ground < 2 ohms	ESD TR53 Grounding Bonding Systems	Resistance Point to Ground < 2 ohms
	Footwear	ANSI/ESD STM9.1	Resistance Point to Groundable Point < 1 x 10^9 ohms	For compliance verification of Footwear / Flooring System, see Table 2.	
	Foot Grounders	ESD SP9.2	Resistance Point to Groundable Point < 1 x 10^9 ohms		
	Flooring	ANSI/ESD STM7.1	Resistance Point to Point < 1 x 10^9 ohms		
			Resistance Point to Groundable Point < 1 x 10^9 ohms		
	Seating	ANSI/ESD STM12.1	Resistance Point to Groundable Point < 1 x 10^9 ohms	ESD TR53 Seating Section	Resistance Point to Ground < 1 x 10^9 ohms

Table 3 continued on next page.

[4] Product qualification is normally conducted during the initial selection of ESD control products and materials. Any of the following methods can be used: product specification review, independent laboratory evaluation or internal laboratory evaluation.

[5] For standards that have multiple resistance test methods, these limits apply to all methods.

[6] Worksurfaces are defined as any surface on which an unprotected ESD sensitive item is placed.

[7] Due to a wide variety of applications for worksurfaces, specific requirements that could be broadly applied are difficult to determine. If there is a concern for CDM failures, then a lower limit of 1x10^6 ohms for point to point and point to groundable point should be considered.

Technical Requirement	ESD Control Item	Product Qualification([7])		Compliance Verification	
		Test Method	Required Limit(s) ([8])	Test Method	Required Limit(s)
EPA	Ionization other than Room Systems	ANSI/ESD STM3.1	Discharge Time User defined Offset Voltage ~~-20~~ 50 < V_{offset} < ~~5~~20	ESD TR53[(8)] Ionization Section	Discharge Time User defined Offset Voltage ~~-20~~ 50 < V_{offset} < ~~20~~50
	Ionization Room Systems		Discharge Time User defined Offset Voltage -100 < Voffset < 100		Discharge Time User defined Offset Voltage -100 < Voffset < 100
	Shelving (When used to store unprotected ESDS)	ANSI/ESD S4.1	Resistance Point to Point < 1 x 10^9 ohms Resistance Point to Groundable Point < 1 x 10^9 ohms	ESD TR53 Worksurface Section	Resistance Point to Ground < 1 x 10^9 ohms
	Mobile Equipment (Working Surfaces)	ANSI/ESD S4.1	Resistance Point to Point < 1 x 10^9 ohms Resistance Point to Groundable Point < 1 x 10^9 ohms	ESD TR53 Worksurface Section	Resistance Point to Ground < 1 x 10^9 ohms
	Electrical Soldering / Desoldering Hand Tools	ANSI/ESD S13.1	Resistance Tip to Ground < 2.0 ohms Tip Voltage < 20 millivolts Tip Leakage Current < 10 milliamps	ESD TR53 Soldering Iron Section Or ANSI/ESD S13.1 Section 6.1	Resistance Tip to Ground < 10 ohms
	Continuous Monitors	User defined	User defined	ESD TR53 Continuous Monitors Section	Manufacturer defined
	Static Control Garment	ANSI/ESD STM2.1	Resistance Point to Point < 1 x 10^{11} ohms	ESD TR53 Garments Section	Resistance Point to Point < 1 x 10^{11} ohms
	Groundable Static Control Garment	ANSI/ESD STM2.1	Resistance to Groundable Point < 1 x 10^9 ohms	ESD TR53 Garments Section	Resistance to Groundable Point < 1 x 10^9 ohms
	Groundable Static Control Garment System	ANSI/ESD STM2.1	< 3.5 x 10^7 ohms	ESD TR53 Personal Grounding with Garments Section	< 3.5 x 10^7 ohms

[8] For additional information on periodic testing of Ionizers, see ANSI/ESD SP3.3.

ANNEX B (INFORMATIVE) – ESD SENSITIVITY TESTING

3. Machine Model Sensitivity

A source of damage for the MM historically was described as ~~is~~ a rapid transfer of energy to the conductive leads of the device. ~~Due to the lack of a series current limiting resistor, this model approximates a voltage source.~~Isolated charged conductor discharges to devices are better characterized by the CDM event. ~~While t~~MM~~his~~ ~~model~~ is no longer required for device ~~classification~~qualification as it does not give any additional information to the HBM and CDM data. Nevertheless, the control of discharges from charged conductors in the manufacturing environment is still a key element in the ESD control program. For more information on Machine Model and device targets, see White Paper 1: A Case for Lowering Component Level HBM/MM ESD Specifications and Requirements by the Industry Council.

ANNEX D (INFORMATIVE) – ESD WIP20.20-2013(LB) REVISION HISTORY

Foreword: Added CDM and MM sensitivities to the foreword and a section on Facility Certification.

2.0 Scope: Added 200 volts CDM and 20 volts ~~MM as sensitivity models~~on isolated charged conductors that this standard applies to.

6.1 ESD Control Program Requirements: Second sentence was revised to “The Program shall document the lowest level(s) of device ESD sensitivity that can be handled” from “The most sensitive level of the items to be handled, in accordance with the Program, shall be documented.”

7.1 ESD Control Program Plan: Product Qualification was added as a required element.

7.3 Product Qualification: Section was added.

7.4 Compliance Verification Plan: Renumbered from 7.3, content remained the same.

8.2 Personnel Grounding: Note was removed and text was made a requirement for garments. Standing requirements were changed; Method 1 and Method 2 have been changed to one method of qualification for standing.

8.3 ESD Protected Areas (EPAs): Additional requirement for process required insulators was added. Within 1 inch of the ESDS items the limit for fields was reduced to 125 v/in.

Table 3: Wrist Strap Cord Bending Life ~~and Ionization room systems~~ was~~ere~~ removed. Ionization offset voltages were updated for room systems. Soldering iron requirements were added.

8.4 Packaging: Section was reworded but the requirements remained the same.

Annex A: Soldering Irons were moved into Table 3. Conveyer systems were added to this section.

Annex B: Updated HBM standard to ANSI/ESD/JEDEC JS-001 in Table 4.

International Code Council

STANDARD FOR RESIDENTIAL CONSTRUCTION IN HIGH-WIND REGIONS

ICC 600-2013 edition
Public Comment Draft #3

The ICC Consensus Committee on Residential Construction in High-Wind Regions (IS-RHW) has held 1 public meeting to develop the third public comments draft of the ICC 600-2013 Standard for Residential Construction in High-Wing Regions. Public comments are requested on the strike-out underline portions of this third public comments draft. The public comment deadline is March 9, 2014. Go to http://www.iccsafe.org/cs/standards/IS-RHW/Pages/default.aspx for more information.

Proposal No.

IS-RHW9-11/12

Revise as follows:

TABLE 104(4)
ULTIMATE DESIGN WIND MODIFICATION FOR TOPOGRAPHIC WIND EFFECT[a]

ULTIMATE DESIGN WIND SPEED FROM FIGURE 104(1)	AVERAGE SLOPE OF THE TOP HALF OF HILL, RIDGE OR ESCARPMENT (percent)						
	0.10	0.125	0.15	0.175	0.20	0.23	0.25
	Required Ultimate Design Wind Speed Modified for Topographic Wind Speed-Up						
120	144	149	155	160	166	172	176
130	156	162	168	174	179	DR	DR
140	168	174	DR	DR	DR	DR	DR
150	180	DR	DR	DR	DR	DR	DR

a. Table applies to a feature height of 500 feet or less and dwellings sited a horizontal distance from the top of the feature equal or greater than one half of the horizontal distance corresponding to half the feature height.
b. Where "DR" is indicated, design per ASCE 7 and the *International Building Code* is required.

(portions not shown remain unchanged)

Proposal No.

IS-RHW53-11/12

Revise as follows:

ACI

American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48333

Standard Referemce number	Title	Referenced in section number
318– ~~11~~14	Building Code Requirements for Structural Concrete	209.1, Table 209(2), Table 209(6), Table 209(11), Table 209(12), Table 209(13), Table 209(14), Table 209(15), Table 209(16), Table 209(17),Table209(19), Table 209(20)

ASTM

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428

Standard Reference number	Title	Referemced in section number
A 307-~~10~~ 12	Carbon Steel Bolts and Studs, 60,000 psi Tensile	207.6.2, 209,
C 62-~~12~~ 13	Building Brick (Solid Masonry Units Made from Clay or Shale)	
C 90- ~~12~~ 13	Load-Bearing Concrete Masonry Units	
C 94/C 94M-~~09~~ 13	Specification for Ready-mixed Concrete	
C 143/C 143M-~~2010a~~ 12	Standard Test Method for Slump of Hydraulic Cement Concrete	
C 216- ~~12~~ 13	Facing Brick (Solid Masonry Units Made from Clay or Shale)	
C 652-~~12~~ 13	Hollow Brick (Hollow Masonry Units Made from Clay or Shale)	202.1.1
C 1019-~~11~~ 13	Test Method of Sampling and Testing Grout	202.1.3
C 1186-08(2012)	Specification for Flat Fiber Cement Sheets	Table 701(5), 707
D 1970/D1970M-~~11~~ 2013	Specification for Self–adhering Polymer Modified Bitumen Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection	504.3.2, 504.6.3,
D 3161/D3161M-~~12~~ 2013	Test Method for Wind Resistance of Asphalt Shingles (Fan Induced Method)	504.2.2, Table
E 84- ~~2012c~~ 2013A	Test Method for Surface Burning Characteristics of Building Materials	209.2.3
E 1996-2012A	Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Impact Protective Systems Impacted by Windborne Debris in Hurricanes	

(portions not shown remain unchanged)

IS-RHW56-11/12

Committee Proposal

Appendix A

Proponent: T. Eric Stafford – IBHS, representing ICC 600 Committee.

Revise as follows:

A2 FOUNDATION DESIGN ASSUMPTIONS

A2.1 General: This section provides an overview of design assumptions for Section 305 prescriptive continuous foundations for use with wood and steel light-frame buildings. Revision of the prescriptive foundation provisions was required as part of this update effort in order to conform to the load and load combination requirements of ASCE 7-10 ~~05 and to adjust from the previous upper bound of the prescriptive design provisions (two-story, 130 mph, Exposure B) to the scope currently permitted by standards adopted by reference within this standard (three story, 150 mph, Exposure C)~~.

A2.2 Design Loads and Load Combinations: Design wind loads used to develop Section 305 foundation requirements are based on the Envelope Procedure in Chapter 28 of ASCE 7-10 ~~05 analytical procedure for low-rise buildings~~. Calculations include increased end zone loads, but not torsional load cases. Increased wind loads due to the ASCE 7 topographic~~al~~ factor have not been included, consistent with the scoping limits of Sec. 104.5 of this standard. Because complex roof ridge configurations make it difficult to differentiate parallel and perpendicular to ridge directions, calculations are based only on perpendicular to ridge loading conditions. ASCE 7-10 ~~05~~ allowable stress design (ASD) ~~basic~~ load combinations have been used, and in particular, ASCE 7 Section 2.4.1, load combination 7 was used to determine required weight of foundation to resist overturning forces: 0.6D + 0.6W.

BSR/NACE Standard MR0103-201x

Ballot Item 2014-01:

Add UNS N07022 to Table 5 as shown below:

Table 5
Cold-Worked Nickel-Chromium-Molybdenum
Alloys and Maximum Hardness Requirements

UNS Number	Previous Condition	Maximum Hardness
N06002	--	35 HRC
N06022	Solution-Annealed	40 HRC
N06625	--	35 HRC
N06686	Solution-Annealed	40 HRC
N06985	--	39 HRC
N07022	Solution-Annealed	43 HRC
N08825	--	35 HRC
N10276	Solution-Annealed	35 HRC

Ballot Item 2014-02:

Add UNS N07022 to Table 6 as shown below:

Table 6
Precipitation-Hardenable Nickel Alloys, Conditions, and Maximum Hardness Requirements

UNS Number	Condition(s)	Maximum Hardness
N05500	Hot-worked and age-hardened or solution-annealed or solution-annealed and age-hardened	35 HRC (335 HV)
N07022	Solution-annealed, cold worked, and aged	47 HRC (455 HV)
N07031	Solution-annealed	35 HRC (335 HV)
	Solution-annealed and aged at 760 to 871 °C (1,400 to 1,600 °F) for a maximum of 4 h.	40 HRC (382 HV)
N07048	Solution-annealed and aged	40 HRC (382 HV)
N07626	Hot compacted powder, solution-annealed (927 °C [1,700 °F] min) and aged (538 to 816 °C [1,000 to 1,500 °F]), max tensile strength 1,380 MPa (200 ksi)	40 HRC (382 HV)
N07716	Solution-annealed and aged	43 HRC (416 HV)
N07718	Solution-annealed or hot-worked or hot-worked and aged	35 HRC (335 HV)
	Solution-annealed and aged or cast, solution-annealed, and aged	40 HRC (397 HV)
N07725	Solution-annealed and aged	43 HRC (416 HV)
N07750	Solution-annealed or solution-annealed and aged or hot worked or hot-worked and aged	35 HRC (335 HV)
N07773	Solution-annealed and aged	40 HRC (382 HV)
N07924	Solution-annealed and aged	35 HRC (335 HV)
N09777	Solution-annealed and aged	40 HRC (382 HV)
N09925	Cold-worked or solution-annealed	35 HRC (335 HV)
	Solution-annealed and aged	38 HRC (362 HV)
	Cold-worked and aged or hot-finished and aged	40 HRC (382 HV)
	Cast, solution-annealed, and aged	35 HRC (335 HV)

PROPOSED CHANGES TO MR0103 (latest edition):

The following alterations to NACE MR0103 / ISO 117945 (latest edition) are proposed:

1. Table 5
a. Change remarks column as shown in blue in enclosed table
b. Add foot note c marked in blue in enclosed table.
2. Table 6
a. Change remarks column as shown in blue in enclosed table
b. Add foot note c marked in blue in enclosed table.

Add alloy C-22HS to Table 5 as shown below:

Table 5 — Cold-worked nickel-chromium-molybdenum alloys and maximum hardness requirements

UNS number	Previous condition	Maximum hardness
N06002	—	35 HRC
N06022	Solution-Annealed	40 HRC
N06625	—	35 HRC
N06686	Solution-Annealed	40 HRC
N06985	—	39 HRC
N07022	Solution-Annealed	43 HRC
N08825	—	35 HRC
N10276	Solution-Annealed	35 HRC

Table 6 — Precipitation-hardenable nickel alloys, conditions, and maximum hardness requirements

UNS number	Condition(s)	Maximum hardness
N05500	Hot-worked and age-hardened or solution-annealed or solution-annealed and age-hardened	35 HRC (335 HV)
N07031	Solution-annealed	35 HRC (335 HV)
	Solution-annealed and aged at 760 °C to 871 °C (1 400 °F to 1 600 °F) for a maximum of 4 h.	40 HRC (382 HV)
N07048	Solution-annealed and aged	40 HRC (382 HV)
N07626	Hot compacted powder, solution-annealed (927 °C [1 700 °F] min) and aged (538 °C to 816 °C [1 000 °F to 1 500 °F]), max tensile strength 1 380 MPa (200 ksi)	40 HRC (382 HV)
N07022	Solution-annealed, cold worked and aged	47 HRC (455 HV)
N07716	Solution-annealed and aged	43 HRC (416 HV)
N07718	Solution-annealed or hot-worked or hot-worked and aged	35 HRC (335 HV)
	Solution-annealed and aged or cast, solution-annealed, and aged	40 HRC (397 HV)
N07725	Solution-annealed and aged	43 HRC (416 HV)
N07750	Solution-annealed or solution-annealed and aged or hot worked or hot-worked and aged	35 HRC (335 HV)
N07773	Solution-annealed and aged	40 HRC (382 HV)
N07924	Solution-annealed and aged	35 HRC (335 HV)
N09777	Solution-annealed and aged	40 HRC (382 HV)
N09925	Cold-worked or solution-annealed	35 HRC (335 HV)
	Solution-annealed and aged	38 HRC (362 HV)
	Cold-worked and aged or hot-finished and aged	40 HRC (382 HV)
	Cast, solution-annealed, and aged	35 HRC (335 HV)

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*

E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

Page	Line	Clause	E/G	Organization	Comment (rationale)	Proposed change (specific; add, delete. From-to)
11-12		3.4	E	Schneider-1	Subparagraph A was deleted, but subsequent paragraphs were not renumbered;	B = A C = B D = C E = D F = E G = F H = G I = H
11		3.4 ~~C~~ **B**	E	Schneider-2	Indent paragraph starting "Battery voltages can…" Add reference to annex	See Annex C for battery installation and maintenance standards
13		3.4.1	T	Schneider-3	This change was accepted in Ballot round #1 but was not picked up in the 2nd draft. Objects can be conductive without being metal.	• Do not place tools or ~~metal~~ other conductive objects on battery cells, racks, tiers, etc.
20		5.1(G)	T	Schneider-4	Some UPS manufacturers start to derate their equipment at altitudes > 3000' ASL, while others start derating at 5000' or 7000'. Rather than specify a value, simply follow the manufacturer's guidance.	G. Verify that the UPS installation will meet or exceed the manufacturer's minimum recommendations for ~~installations at altitudes greater than 5000 feet in elevation above sea level.~~ the altitude above sea level at which the equipment will be installed.
23		6.1.A	T	Schneider-5	Grammar. Split into two sentences. Delete the final sentence. Why would an installer contact the UPS manufacturer about life safety? What question would the installer ask? If the application is for health care (NEC Article 517), Emergency Systems (NEC Article 700) or Legally Required Systems (NEC Article 701), that should have been determined long before the specification and purchase of the UPS. Engineering/installation drawings should specify the requirements conduits and cabling associated with the specific application. The installer should do what is shown in the drawings or, if in doubt, should contact the engineer who created the drawings (who is not likely to be the UPS manufacturer).	A. Install UPSs, accessories, and ancillary equipment in accordance with contract documents, the NEC, and manufacturer's installation drawings and wiring diagrams. ~~to include~~ Verify compliance with overall dimensions, front view, and sectional view, typical installation and module arrangement, conduit entry, and ventilation and exhaust systems. ~~Consult the manufacturer prior to installing UPSs to support equipment that could affect lives, safety or public services.~~
23		6.1.1.A	T	Schneider-6	Add a new sentence. Cardboard boxes and packing materials create fibrous dust that is harmful to IT Equipment . If the UPS is to be installed in an ITE room, it should be unpackaged in a staging area and then moved to its final installed location.	A. Unpack UPSs in close proximity to the installation location leaving sufficient room for assembling and moving equipment into place. If the UPS is to be installed in an information technology equipment room, all shipping material, boxes, packing materials, etc.) should be removed prior to moving the equipment into the ITE room. Inspect UPS cabinets, components and...

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*
E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

24		6.2.F	T	Schneider-7	The floor tile manufacturer can tell you *how* to install a tile, but they can't tell you *where* or *why.* Neither can the UPS manufacturer, because positioning of floor tiles is site specific. It requires an engineer to run a computational fluid dynamics (CFD) analysis based on where power densities and heat generation will be greatest.	F. Place perforated accessible floor tiles, where used, in accordance with the floor tile manufacturer's recommendations. Location and type of perforated floor tiles should be based on engineering assessment of air flow and heat generation for the specific site. Typically computational fluid dynamics (CFD) software is used.
24		6.3.B	T	Schneider-8	The presence of harmonic currents is strictly a function of the type of load being placed on the power distribution system. Some UPS rectifiers can create harmonic currents on the input side of the UPS. Usually the concern is harmonic currents created by the ITE load. Only the person responsible for the selection of the load equipment (usually a facility manager) can determine whether harmonics are likely to be present. In most data centers today harmonic currents are negligible and double-sizing of neutral conductors is not necessary. Typically a 3-phase UPS is not a separately-derived source (i.e., it does not have a 4-wire [neutral] output). The neutral is created downstream of the UPS at a PDU or transformer. Sizing for harmonic currents is addressed in Article 310 of the NEC.	... UPS neutral conductors, where installed, ~~are~~ should be considered to be ~~a~~ current-carrying conductors. ~~, and the manufacturer~~ If the person responsible for selection of the load equipment anticipates high harmonic currents from non-linear loads, he may recommend 200% ampacity neutral conductors on the output of the UPS. ~~considering non-linear load supplied from UPSs~~.
24		6.3.D	T	Schneider-9	The term "emergency power off" or "EPO" is not used or recognized in the NEC, even though the term is widely used within industry. The correct t term is "disconnecting means". A disconnecting means is not always required on a UPS, especially if the UPS is in a room separate from the critical load. A disconnecting means is sometimes required in NEC Article 645 for IT equipment, but not always.	Install conductors in raceways for disconnecting means (also known as emergency power off or EPO), building alarm or relay contacts as required between the device(s) and UPSs. ~~in raceways~~.

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*
E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

25		6.3.G	T	Schneider-10	The term "emergency power off" or "EPO" is not used or recognized in the NEC, even though the term is widely used within industry. The correct t term is "disconnecting means". A disconnecting means is not always required on a UPS, especially if the UPS is in a room separate from the critical load. A disconnecting means is sometimes required in NEC Article 645 for IT equipment, but not always. The purpose of "EPO" is to disconnect power in order to protect fire fighters, not to transfer load to a different source of (bypass) power. Delete the sentence that suggests this is an option. The NEC distinguishes between the disconnecting means itself (such as a shunt trip on a circuit breaker) and the controls to operate it (such as pushbuttons or switches located at stations by doorways).	G. When they are required, configure ~~emergency power off (EPO), remote emergency power off (REPO)~~ disconnecting means and shunt trip controls to comply with federal, state and local codes. ~~EPO devices~~ Disconnecting means are typically normally open latching devices. ~~EPO and REPO controls may transfer the UPS load to a bypass source before shutting down the UPS.~~ Check local codes for requirements for tripping upstream overcurrent protective devices, such as the maintenance bypass input source, during ~~EPO~~ operation of a disconnecting means. Ensure that UPSs are turned off and that all sources of power (including dc from batteries) are removed prior to connecting controls for disconnecting means ~~EPOs and REPOs~~. Connect control conductors to the UPS and the remote device(s) in accordance with the manufacturer's recommendations.
25		6.3.H	E	Schneider-11		H. Power to UPSs may be supplied by sources with high levels of available fault current. Secure input conductors to prevent cable movement ~~due from~~ caused by high levels of fault current.
25		6.4.A	T	Schneider-12	This standard ignores battery cabinets. Perhaps this is because they tend to be more proprietary in a wide range of configurations that do not lend themselves to a "generic" description. Battery cabinets should be installed in accordance with the manufacturer's installation instructions. But this issue should be addressed by a task group.	Where used, battery racks must be installed in a safe location for maintenance and away from radiant heat sources.
26		6.4 B (new)	T	Schneider-13	There is no mention in this standard of spill management systems. Figure 3 shows a battery with no spill containment, which would be a violation of fire codes in most jurisdictions. Create a NEW 6.4.B and renumber all subsequent paragraphs.	B. For vented (flooded) batteries, spill containment is usually required and must be installed before anchoring the battery racks in place. Install spill containment barrier and liner in accordance with the spill containment manufacturer's instructions. Install barriers two inches beyond the perimeter of the battery racks.
26		6.4.~~E~~ F	T	Schneider-14	Bolts provided with the battery rack may not be adequate for the seismic rating of the battery. Seismic anchor bolts most must be specified by a professional engineer for the seismic rating of the location.	E. Secure the battery rack assembly to the floor with the appropriate anchor bolts. Seismic anchor bolts must be specified by a professional engineer based on the proximity of the building to a fault, floor level above street level, building construction, floor construction, and other considerations specific to the site. Install plastic rail covers, if not already in place.

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*

E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

26		6.4.~~F~~ G	T	Schneider-15	Certain battery types are appropriate for UPS (e.g., "high rate discharge"), but the critical issue when installing a UPS is not battery selection. Rather, it is assuring that the settings are correct for the battery that has already been installed. For example, you would never set the float voltage for Ni-Cd battery at the same level as for a Lead-acid battery.	F. ~~Check that battery types are compatible with UPS equipment, rectifiers, chargers, etc.~~ Verify that the UPS rectifier/charger settings are appropriate for the type of battery being installed. Consult the battery manufacturers for ~~recommendations.~~ recommended settings.
26		6.4.~~G~~ H	T	Schneider-16	What is a contractor supposed to do if the room does not allow enough space above the top tier for ventilation? That detail should have been determined well before the battery and racks were purchased. How does a contractor know when clearance is "adequate"? At this point the battery has been specified, purchased, installed, and is being installed. While the guidance is good, it is too late.	G. Top rows of batteries in multiple-tier installations typically operate at slightly higher operating temperatures than those on lower tiers. Ensure adequate ceiling clearance for ventilation. Consult the battery manufacturer for recommended minimum clearance for service and ventilation. If clearance is inadequate, stop installation and notify the owner immediately to discuss options.
26		6.4.~~I~~ J	T	Schneider-17	Missing a required step. Spacers between cell units are frequently mistaken for packing material and are thrown away.	… Space batteries approximately one-half-inch apart. Install battery cell spacers, if provided, for seismically-rated installations. Do not adjust the battery rack with batteries installed.
27		6.4.~~J~~ K	T	Schneider-18	"If a little non-oxidizing grease is good, more would be better" is NOT a good rule.	… Heat non-oxidizing grease in accordance with manufacturer's instructions and apply sparingly only on connection surfaces. Avoid contact with the cell cover as non-oxidizing grease can cause damage to cell containers.
27		6.4.~~K~~ L	T	Schneider 19	A common – and dangerous – installation error is to leave shipping plugs in place. Plugs should be saved so they can be used any time a cell or unit is moved.	~~Ensure that~~ Remove battery shipping plugs and replace with battery flame arresters ~~are installed~~ before making battery connections. Save shipping plugs for use at a later date. Use manufacturer's recommended or provided flexible cables …[etc]
27		6.4.~~L~~ M	T	Schneider-20	Add reminder about stored energy. If a battery has been separated into segments not greater than 100 Vdc, the risk is quite low and minimal PPE can be used. Reconnecting the segments would require a higher level of PPE.	Because batteries store electrical energy they are always energized. Always wear arc rated personnel protective equipment based upon the hazard/risk assessment. Do not make inter-tier connections of batteries until the final steps in making battery connections to avoid working with high voltages. Connect battery conductors to the battery disconnecting means before making final connections to the batteries.
27		6.4.0 (NEW)	T	Schneider-21	Add a new paragraph for installation of battery monitoring. Renumber subsequent paragraphs.	If battery monitoring is included, either by the UPS manufacturer of a separate battery monitor vendor, install monitoring connections on the cells in accordance with the manufacturer's instructions.

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*
E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

29		7.2.G	T	Schneider-22	The important activity is to record the data; measurement is not enough	G. Measure and record the resistance at each battery cell…
30		7.3.G	T	Schneider-23	For large UPS systems installations supervision is usually provided by the manufacturer. Most of the time the manufacturer will not honor warranty if proper installation and operation of the UPS is not witnessed by the manufacturer's representative. If vented/flooded batteries are installed, both the UPS and the battery manufacturers may require a representative on site.	Consult with the manufacturer's on site representative (if one is present per contract) for all warranty-related issues, including installation, start-up, and parts replacement Check all lamps using….[etc.]
31		7.5.B	T	Schneider-24	Addition of electrolyte is only required on batteries with free-flowing liquid electrolyte. VRLA and other types of "sealed" batteries do not require (or even allow) electrolyte addition.	For vented (flooded) batteries, add ~~Add~~ electrolyte to batteries as required… [etc]
31		7.5.G	T	Schneider-25	A 50% load imbalance is not recommended and should not be considered acceptable.	Balance UPS line-to-line loading ~~to within 50% or less~~ in accordance with manufacturer's recommendations. Phase loading should be as close to equal as practical; for load imbalance greater than 50%, consult the UPS manufacturer.
32		8.0	E	Schneider-26	The title of Section 8 is inappropriate; it does not match the content of the section. It is not about sweeping up debris and removing fingerprints. It is about documentation, training, spares, and other services that apply after the UPS has been installed.	Site Cleanup **Post Installation Documentation and Services**
32		8.1.A	E	Schneider-27	The common terminology is "site acceptance test (SAT)".	Provide factory test data, battery specifications, vendor's certificate of compliance to the specifications, and records of ~~field~~ site acceptance testing to the owner
32		8.1.B	E	Schneider-28	We don't ignore the contract. Per Webster, "in lieu of" means "instead of; in place of"	~~In lieu of~~ Unless otherwise specified in contractual requirements, provide... [etc]
32		8.1.C	T	Schneider-29	Contracts usually stipulate how many copies of owner's manuals and other documents are required.	Provide one copy (or as required by contract) of the manufacturer's warranty information…. [etc.]
33		Annex	G	Schneider-30	Global comment: Annex material should be "informative" unless otherwise identified. Annexes A-C all state "This annex is not a part of the standard." And yet the paragraphs are full of action verbs (such as "Verify," "Test," "Perform," "Measure," etc.) . Section 1.4 states that "Mandatory requirements… are characterized by… the use of positive phrasing or mandatory requirements." It gives an example of mandatory usage: "…'protect equipment…' with the latter interpreted (understood) as "(it is necessary to) protect equipment…"	

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*

E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

33		Annex A	E	Schneider-31	Paragraph numbering is inconsistent from one annex to another and does not seem to follow ANSI style.	From To A1 A.1 A2 A.2 A3 A.3 Etc. A8 A.8
33		Annex A	E	Schneider-32	See comment Schneider-30. Add an introductory paragraph. Renumber paragraphs accordingly.	This is an informative annex It provides recommended practices and additional information that is useful to know but is not mandatory.
35		Annex B	E	Schneider-33	See comment Schneider-30. Add an introductory paragraph. Renumber paragraphs accordingly.	This is an informative annex It provides recommended practices and additional information that is useful to know but is not mandatory.
33		Annex A	T	Schneider-34	See comment Schneider-9. The term "emergency power off" or "EPO" is not used or recognized in the NEC, even though the term is widely used within industry. The correct t term is "disconnecting means".	A2. Test alarm shutdown functions including overload shutdown and alarms and disconnecting means (also known as emergency power off [EPO]), if installed. ...etc
35		B.1.D	T	Schneider-35	"Written" implies hard copy. In this age "electronic" means should be acceptable.	D. Maintain written or digital records of all inspection, maintenance, testing... [etc.]
35		B.1.F	T	Schneider-36	Electronic equipment such as UPS systems can contain hazardous materials (such as lead solder and other elements used in printed circuit boards). Hazmat laws generally regulate only the disposal of batteries; replacement is between the buyer and the seller. The previous sentence already said to replace in accordance with manufacturer recommendations.	.... ~~Replacement and d~~ Disposal of ~~batteries~~ hazardous material is governed by federal, state and local authorities...[etc.]
35		B.1.H	T	Schneider-37	Re-emphasize that work such as re-torque should be performed only on de-energized equipment. Sometimes re-torque is not required or may be required by the manufacturer on a different schedule or set of circumstances.	H. Retorque terminal hardware on de-energized equipment to manufacture's recommended values annually or as recommended by the manufacturer.
36		B.1.L	T	Schneider-38	I don't know where the 8 day number came from, but it is wrong. Batteries should never be allowed to sit in a discharged state for more than a few hours. Even though the battery has reached end-voltage (e.g., 1.67 volts per cell), and the UPS has shut down, it can continue to discharge if the battery remains connected to the UPS. Some UPS have an undervoltage release to automatically trip the battery off line, but others may require a shunt trip or manual disconnect.	L. ~~Batteries connected to a UPS that is out of service for more than eight (8) days may be damaged.~~ Batteries should not be left in a discharged state. If a UPS is out of service for more than a few hours (e.g., following an outage in excess of the battery's reserve time), disconnect the battery and recharge with a separate battery charger (if one is available). If left connected, batteries can continue to discharge through parasitic currents until eventually the battery gets to zero volts, at which time irreparable damage can occur in the battery.

Please think twice about printing this matrix. You can e-mail it, along with your ballot to neis@necanet.org

Recirculation Comments on NECA 411 – 201x, *Standard for Installing and Maintaining Uninterruptible Power Supplies (UPS)*

E: editorial, G: General T: Technical Note: **Please do not re-size table**
ID: Company with comment # (do not automate comment #)

41		Annex C	E	Schneider-	Delete all underlining. In the 3rd reference the document name (IEEE 450) should be in italics.	IEEE Std 450 – *Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid (VLA) Batteries for Stationary Applications*, Institute of Electrical and Electronics Engineers, Piscataway, NJ

BSR/UL 514C, Standard for Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers

2. Revision to the Minimum RTI Requirement for Box Extenders.

25A.4 A polymeric material used for a box extender shall have a relative thermal index of not less than that required for the box for which it is intended to be used in accordance with 17.2A or ~~17.3A~~ 17.3.

4. Clarification of the Requirements to Evaluate the Combination of Receptacle and Cover as an Assembly.

46.2 An opening for a receptacle shall accommodate a receptacle of a standard size, and shall locate the face of the receptacle flush with or outside the outer plane of the opening in a cover.

~~*Exception: The face of a receptacle may be located behind a nonmetallic cover provided it complies with all of the following:*~~

~~*a) The receptacle and cover shall be evaluated as an assembly, including compliance with 46.1;*~~

~~*b) The assembly shall be evaluated for compliance to requirements in this Standard, and the Standard for Attachment Plugs and Receptacles, UL 498;*~~

~~*c) The receptacle and cover shall be permanently attached or uniquely constructed to prevent securement of the cover to any other receptacle; and*~~

~~*d) The assembly shall be marked in accordance with 86.6.1, and provided with installation instructions in accordance with 87.6.*~~

5.1.7 A cover shall comply with Installation of Receptacles, Section 46.

Exception: The face of a receptacle may be located behind a nonmetallic cover provided it complies with all of the following:

a) The receptacle and cover shall be evaluated as an assembly, including compliance with 46.1;

b) The assembly shall be evaluated for compliance to requirements in this Standard, and the Standard for Attachment Plugs and Receptacles, UL 498;

c) The receptacle and cover shall be permanently attached or uniquely constructed to prevent securement of the cover to any other receptacle; and

d) The assembly shall be marked in accordance with 86.6.1, and provided with installation instructions in accordance with 87.6.

BSR/UL 574, Standard Electric Oil Heaters

Overload Protection, New 9.2 – 9.45; New 26.14 and 26.15

9 Overload Protection

9.2 An oil heater rated more than 48 amperes and employing resistance heating elements shall have the heating elements on subdivided circuits. Each subdivided load shall not exceed 48 amperes and shall be protected at no more than 60 amperes.

Exception: An oil heater employing a resistance type immersion electric heating element contained in a vessel marked with an appropriate ASME symbol may be subdivided into circuits not exceeding 120 amperes and protected at no more than 150 amperes.

9.3 The overcurrent protection devices required in 9.2 shall be provided by the manufacturer as an integral part of the oil heater or shall be provided by the manufacturer as a separate assembly for independent mounting for use with the oil heater. When the overcurrent protection devices are provided as a separate assembly, the oil heater and the overcurrent protection assembly shall be marked as required in 26.14 and 26.15, respectively.

9.4 The overcurrent protection specified in 9.2 and 9.3 shall be of a type rated for branch circuit protection. A cartridge fuse used for this purpose shall be a Class CC, G, H, J, K, R, T, or equivalent fuse meeting the requirements for branch circuit protection. A plug fuse shall be used only in circuits of 125 volts maximum.

MARKING

26 General

26.14 When required overcurrent protective devices are provided as a separate assembly in accordance with 9.3, the oil heater shall be permanently marked to indicate that it is to be used only with this separate assembly. For example: ″This oil heater is to be used only with (manufacturer's identification) Model (or Catalog) _____ overcurrent protection assembly″.

26.15 The separate overcurrent assembly shall be permanently marked, where readily visible after installation, with the name or identifying symbol of the manufacturer, the model or catalog number, and the electrical rating.

BSR/UL 924, Standard for Safety for Emergency Lighting and Power Equipment

1. Withdrawal of Proposal: Scope expansion to include means of egress lighting controls

1.2 Examples of equipment described in 1.1 include:

Exit Signs

Emergency Luminaires

Unit Equipment

Central Station Battery Banks

Inverters

Automatic Battery Charging and Control Equipment

Automatic Load Control Relays

Derangement Signal Equipment

45.2.2 A circuit intended to activate emergency lighting in response to an external motion-sense signal shall have a minimum ″ON″ time of 15 minutes.