ANSI STANDARDS ACTION

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

VOL. 46, #36 *September 4, 2015*

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American National Standards

Call for comment on proposals listed

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

Ordering Instructions for "Call-for-Comment" Listings

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

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

* Standard for consumer products

ISSN 0038-9633

Comment Deadline: October 4, 2015

ACCA (Air Conditioning Contractors of America)

New Standard

BSR/ACCA 14 QMref-201x, Quality Maintenance of Commercial Refrigeration Systems (new standard)

This is the 3rd public review of a comprehensive standard to provide the Commercial Refrigeration industry with quality assessment/maintenance guidelines for fluorocarbon-charged refrigeration systems of medium and low temperature applications.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Luis Escobar, luis.escobar@acca.org,703-824-8870

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

Addenda

BSR/ASHRAE Addendum 62.1e-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2013)

This proposed addendum modifies Section 8, Operation and Maintenance, incorporating calibration requirements for airflow monitoring sensors and systems. The requirements in the proposed Table 8.4.1 (Minimum Maintenance Activity and Frequency) were initially based on requirements in ASHRAE/ACCA Standard 180-2012, Standard Practice for Inspection and Maintenance of Commercial-Building HVAC Systems, although the SSPC has modified some of those requirements.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE Addendum 62.1f-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2013)

In preparation for publication of Standard 62.1-2016, this proposed addendum updates the normative references. This process includes reviewing the references to ensure that their content has not been changed such that they should no longer be referenced and that they are written in normative language. References that are not in normative language are being moved to a new Informative Bibliography. In some cases, the language of the Standard where these documents are referenced needs to be modified. In particular, changes to the notes to Table 5.5.1 are made for avoid referencing non-normative documents and to improve the normative language used.

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

Addenda

BSR/ASHRAE Addendum 62.1g-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2013)

This proposed addendum is from a change proposal submitted from outside the SSPC. The proposer pointed out that the addendum provided an exception which essentially allows coils which are very difficult to clean as long as “instructions for . . . cleaning” are provided. The SSPC agrees that providing instructions does not make cleaning these coils any more feasible, and therefore the exception should be deleted.

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

Addenda

BSR/ASHRAE Addendum 62.2k-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

The purpose of this proposed addendum is to create a compliance path within the standard based on the use of recirculated air that has been filtered to reduce exposure in the interior of the building to particulate matter of not exceeding 2.5 microns. Research has shown that reduction of such particles (PM2.5) would result in air quality that is equal or better in quality than that provided by the current standard. This proposed addendum allows for a reduction in the required amount of whole-building ventilation needed to show compliance with the standard when the filtration requirements in the addenda are satisfied.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE Addendum 62.2o-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

The committee approved a proposal to change references to “whole-building” or “whole-house” ventilation to 'dwelling unit” ventilation in the main body of the standard. This proposed changed will ensure that the same nomenclature is used in Normative Appendix A (Existing Buildings), for consistency.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE Addendum 62.2p-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

The intent of Section 7.2.2 (Demand-Controlled Local Exhaust Fans) is to require fans to have at least one speed setting meeting the minimum required exhaust airflow rate where the corresponding sone rating is 3 or less. This proposed change would clarify this intent. Currently, the language in this section would permit any fan with a high speed setting exceeding 400 cfm to be exempt from the sone requirement, even if operating on a lower speed setting. Closing this loophole will ensure that occupants that have typical-sized range hoods will have at least one speed setting rated ≤3 sone.

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

Addenda

BSR/ASHRAE Addendum 62.2q-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

This proposed change adds an alternative combustion safety testing method based on performance in lieu of the prescriptive requirements that were the sole basis previously. ANSI/BPI-1200 is a consensus standard that addresses combustion safety testing.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE Addendum 62.2r-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

There is confusion in the industry regarding where ventilation system airflow measurements can be taken. This proposed change would provide guidance on this topic while aligning the language with the latest draft of BSR/RESNET/ICC 380, “Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems”, which is expected to be finalized as an ANSI standard shortly.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE Addendum 62.2s-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

Standard 62.2 has never previously distinguished between balanced and unbalanced ventilation, despite it being well known that these interact with natural infiltration in different ways to produce different overall air-exchange rates. This proposed change provides a mechanism for accounting for the differences between balanced and unbalanced ventilation.

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

Addenda

BSR/ASHRAE Addendum 62.2u-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

This proposed change adds an alternative method to reduce transfer air in existing buildings. The compartmentalization requirement in the existing standard is extremely difficult and cost-prohibitive for many existing buildings to meet. While this is a desirable target, an alternative for existing buildings to meet the standard with reasonable effort is needed.

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

Addenda

BSR/ASHRAE Addendum a to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposal revises Section A3, Water System Flow Diagram to allow the Program Team the flexibility to determine what needs to be included in the flow diagram to manage the risk of legionellosis in the building water systems of Health Care Facilities. It also removes the permissive language that was previously in the standard.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This proposal adds the definition of construction documents. It also revises multiple portions of the standard to remove the permissive language and put it in mandatory code-enforceable language and removes a reference that is not used in the normative section.

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

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

Addenda

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 15-2013, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 188-2015)

Addendum C gives requirements for carbon dioxide (CO2) refrigeration systems and modifies the requirements for machinery rooms. This addendum revises Section 3 with the addition of new definitions and a changed definition. In addition, this addendum eliminates Section 8.1(d) and completely revises Section 9.2.6.

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

Addenda

BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems (addenda to ANSI/ASHRAE Standard 188-2015)

This revises portions of Appendix A that applies to Health Care Facilities. The intent of these revisions is to remove permissive language and change it to mandatory code-enforceable language. Section A5.1 was changed to make the language clearer as to when the Designated Team needs to reevaluate the legionellosis risk management plan

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

Addenda

BSR/ASHRAE Addendum u to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-407G, to Table 4-2 and Table D-2. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 1000 ppm v/v. The recommended ATEL is 52,000 ppm v/v.

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

Addenda

BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-455A, to Table 4-2 and Table D-2. The recommended flammability classification is 2L. The recommended toxicity classification A is based on an adopted OEL of 650 ppm v/v. The recommended ATEL is 110,000 ppm v/v.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE Addendum w to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-407H, to Table 4-2 and Table D-2. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 1000 ppm v/v. The recommended ATEL is 92,000 ppm v/v.

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

Addenda

BSR/ASHRAE Addendum x to ANSI/ASHRAE Standard 34-201x, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum revises the zeotropic refrigerant blend R-744 in Table 4-1 and Table E-4.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE/IES Addendum bt to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum updates all of the efficiency values for low-voltage dry-type transformers to be consistent with federal law.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE/IES Addendum by to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum requires pipe insulation on the first 8 feet of branch piping.

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

Addenda

BSR/ASHRAE/IES Addendum bv to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum exempts baselines with purchased cooling and heat from the reset control requirements in Appendix G.

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

Addenda

BSR/ASHRAE/IES Addendum bz to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum replaces the current Table 6.8.1-11 in its entirety and replaces it with a new table to account for the new rating conditions. These new rating conditions add three application classes.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE/IES Addendum bw to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposed change will provide a baseline for lighting controls consistent with Addendum BM. Credit for automatic occupant control of lighting that is not required in the Appendix G baseline is now established with the occupancy control reduction factors listed in Table G3.7.

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

Addenda

BSR/ASHRAE/IES Addendum ca to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum modifies the fan power criteria by lowering of the motor power threshold for the fan speed control requirement from 7.5 HP (5.6 kW) to 5 HP (3.7 kW), including heat-rejection equipment equipped with multiple fans with a combined motor power that exceeds the new limit, and eliminating the Climate Zone exception.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE/IES Addendum bx to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum requires a modeler to use the design set point, for multizone thermostat systems, which will result in the lowest supply-air-cooling or highest supply-air-heating setpoint when modeling per Appendix G.

Click here to view these changes in full

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

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

Addenda

BSR/ASHRAE/IES Addendum cb to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposed addendum updates the duct insulation requirements in 90.1 that have been in effect since the 2001 edition of the Standard.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE/IES Addendum cc to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposed addendum replaces the definition of sidelighting effective aperture that was inadvertently deleted in ASHRAE 90.1-2013. This definition matches the definition in the ASHRAE 90.1-2013 users manual and ASHRAE 189.1-2014.

Click here to view these changes in full

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

Addenda

BSR/ASHRAE/IES Addendum ce to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum increases the minimum ERV requirements from zero to a reasonable minimum size for smaller units. With this addendum, the supply-air requirements at various outside air fractions are reduced so at least 40 cfm of outside air is available for recovery for continuous ventilation systems in the coldest climate zones.

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

Addenda

BSR/ASHRAE/IES Addendum cf to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposed addendum adds additional requirements to section 6.1.1.3.1 for direct-replacement HVAC equipment. Only requirements are being added that are easily done as part of a direct replacement..

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

Addenda

BSR/ASHRAE/IES Addendum ci to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposed addendum adjusts the equations for fenestration orientation in Section 5.5.4.5 by requiring a lower SHGC for west- and east-facing fenestration, and by allowing the use combinations of fenestration area, exterior shading, and SHGC to demonstrate compliance.

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

Addenda

BSR/ASHRAE/IES Addendum cj to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal modifies a footnote in Appendix G for single-zone VAV systems serving computer rooms to be consistent with the current approach of setting the baseline heating-fuel source by climate zone.

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

Addenda

BSR/ASHRAE/IES Addendum ck to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum makes a change to control set point for the cooling tower to better scale with its climate, clarifies the operation of the condenser water pump as a constant volume pump, and modifies the exception for pump W/gpm for the water-side economizer by changing the increased power of 5 W/GPM to 3 W/GPM.

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

Addenda

BSR/ASHRAE/IES Addendum du to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum requires water-side economizers for non-fan chilled water systems such as radiant cooling or passive chilled beam systems and for active chilled beam systems.

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

Addenda

BSR/ASHRAE/IES/USGBC Addendum i to Standard 189.1-201x, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/USGBC/IES Standard 189.1-2014)

This addendum reorganizes the roof heat-island mitigation section and adds new provisions for vegetated terrace and roofing systems relative to plant selection, growing medium, roof membrane protection, and clearances.

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NSF (NSF International)

Revision

BSR/NSF 14-201x (i71r1), Plastic Piping System Components and Related Materials (revision of ANSI/NSF 14-2015)

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

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Lauren Panoff, (734) 769 -5197, lpanoff@nsf.org

TIA (Telecommunications Industry Association)

New Standard

BSR/TIA 920.110-B-201x, Telecommunications - Telephone Terminal Equipment - Transmission Requirements for Digital Telephones with Handsets (new standard)

This standard establishes audio transmission performance requirements for handset-equipped digital telephones regardless of protocol or digital format. Transmission may be over any digital interface including Local or Wide Area Networks, Universal Serial Bus (USB), Firewire/IEEE Std 1394, public ISDN, or digital over twisted-pair wire. This includes TDM-based and packet-based (e.g., VoIP) telephones. These telephones may be connected through modems, voice gateways, wireless access points, or PBXs, or they may be personal computer-based telephones.

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Send comments (with copy to psa@ansi.org) to: Teesha Jenkins, (703) 907 -7706, standards@tiaonline.org

UL (Underwriters Laboratories, Inc.)

New Standard

BSR/UL 3703-201x, Standard for Safety for Solar Trackers (new standard)

(1) Correction of a reference in paragraph 16.2 and the deletion of Section 69, Emergency Movement of Platform Without Drive Power Test.

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 817-201X, Standard for Safety for Cord Sets and Power-Supply Cords (revision of ANSI/UL 817-2015d)

This proposal includes: (1) Addition of requirements related to overcurrent protection on 18 and 17 AWG extension cord sets; and (2) Addition of requirements to cover a construction of a general-use cord set employing a joint

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Send comments (with copy to psa@ansi.org) to: Ross Wilson, (919) 549 -1511, Ross.Wilson@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1203-201X, Standard for Safety for Explosion-Proof and Dust-Ignition Proof Electrical Equipment for Use in Hazardous (Classifed) Locations (Proposal dated 09-04-15) (revision of ANSI/UL 1203-2013)

This revision includes proposed changes to 10.2.1 and 15.1 per comments received on proposal dated 06-26-15.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Vickie Hinton, (919) 549 -1851, Vickie.T.Hinton@ul.com

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2586-201x, Standard for Safety for Hose Nozzle Valves (revision of ANSI/UL 2586-2014)

This proposal revises requirements for automatic hose nozzle valves equipped with an integral hold open or latching device.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Marcia Kawate, (408) 754 -6743, Marcia.M.Kawate@ul.com

Comment Deadline: October 19, 2015

AAMI (Association for the Advancement of Medical Instrumentation)

New National Adoption

BSR/AAMI/IEC 62304-2006/Amd 1-201x, Medical device software - Software life cycle processes, Amendment 1 (identical national adoption of IEC 62304:2006/Amd 1)

Amendment 1 updates the standard to add requirements to deal with legacy software, where the software design is prior to the existence of the current version, to assist manufacturers who must show compliance to the standard to meet European Directives. Software safety classification changes include clarification of requirements and updating of the software safety classification to include a risk-based approach.

Single copy price: Free

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI EC12-2000 (R201x), Disposable ECG electrodes (reaffirmation of ANSI/AAMI EC12-2000 (R2010))

This standard contains minimum labeling, safety and performance requirements, test methods, and terminology for disposable electrocardiographic electrodes.

Single copy price: 110.00 (List)/$66.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=ec12&searchoption=ALL

Order from: Hae Choe, (703) 253-8268, HChoe@aami.org; customerservice@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/IEC 60601-2-4-2010 (R201x), Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators (reaffirmation of ANSI/AAMI/IEC 60601-2-4-2010)

This standard covers the basic safety and essential performance of medical electrical equipment intended to defibrillate the heart by an electrical pulse via electrodes applied either to the patient's skin (external electrodes) or to the exposed heart (internal electrodes). This standard does not apply to implantable defibrillators, remote control defibrillators, external transcutaneous pacemakers, or separate cardiac monitors.

Single copy price: 195.00 (List)/$117.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=IEC+60601-2-4&searchoption=ALL

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/IEC 80601-2-30-2009 (R201x), Medical electrical equipment - Part 2-30: Particular requirements for the basic safety and essential performance of automated type non-invasive sphygmomanometers (reaffirmation of ANSI/AAMI/IEC 80601-2-30-2009)

This standard applies to the basic safety and essential performance of automated sphygmomanometers, which by means of an inflatable cuff, are used for intermittent indirect measurement of the blood pressure without arterial pressure.

Single copy price: 195.00 (List)/$117.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=80601-2-30&searchoption=ALL

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11138-1-2006 (R201x), Sterilization of health care products - Biological indicators - Part 1: General requirements (reaffirmation of ANSI/AAMI/ISO 11138-1-2006 (R2010))

Provides general requirements for production, labeling, test methods and performance characteristics of biological indicators, including inoculated carriers and suspensions, and their components, to be used in the validation and routine monitoring of sterilization processes.

Single copy price: 185.00 (List)/$111.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: www.aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11138-2-2006 (R201x), Sterilization of health care products - Biological indicators - Part 2: Biological indicators for ethylene oxide sterilization processes (reaffirmation of ANSI/AAMI/ISO 11138-2-2006 (R2010))

Provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators, and test methods intended for use in assessing the performance of sterilizers and sterilization processes employing ethylene oxide gas as the sterilizing agent, either as pure ethylene oxide gas or mixtures of this gas with diluent gases, at sterilizing temperatures within the range of 29°C to 65°C.

Single copy price: 95.00 (List)/$57.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11138-3-2006 (R201x), Sterilization of health care products - Biological indicators - Part 3: Biological indicators for moist heat sterilization processes (reaffirmation of ANSI/AAMI/ISO 11138-3-2006 (R2010))

Provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators, and test methods intended for use in assessing the performance of sterilization processes employing moist heat as the sterilizing agent.

Single copy price: 95.00 (List)/$57.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11138-4-2006 (R201x), Sterilization of Health Care Products - Biological Indicators - Part 4: Biological Indicators for Dry Heat Sterilization Processes (reaffirmation of ANSI/AAMI/ISO 11138-4-2006 (R2010))

Provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators, and test methods intended for use in assessing the performance of sterilization processes employing dry heat as the sterilizing agent at sterilizing temperatures within the range of 120°C to 180°C.

Single copy price: 95.00 (List)/$57.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11138-5-2006 (R201x), Sterilization of Health Care Products - Biological Indicators - Part 5: Biological Indicators for Low-Temperature Steam and Formaldehyde Sterilization Processes (reaffirmation of ANSI/AAMI/ISO 11138-5-2006 (R2010))

Provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators and test methods intended for use in assessing the performance of sterilization processes employing low-temperature steam and formaldehyde as the sterilizing agent.

Single copy price: 95.00 (List)/$57.00 (AAMI members)

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11140-3-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 3: Class 2 Indicator Systems for Use in the Bowie and Dick-Type Steam Penetration Test (reaffirmation of ANSI/AAMI/ISO 11140-3-2007 (R2012))

Specifies the requirements for chemical indicators to be used in the steam penetration test for steam sterilizers for wrapped goods, e.g., instruments and porous materials. The indicator for this purpose is a Class 2 indicator as described in ISO 11140-1.

Single copy price: 135.00 (List)/$81.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11140-4-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 4: Class 2 Indicators as an Alternative to Bowie and Dick Test for Detection of Steam Penetration (reaffirmation of ANSI/AAMI/ISO 11140-4-2007 (R2012))

Specifies the performance for a Class 2 indicator to be used as an alternative to the Bowie and Dick-type test for steam sterilizers for wrapped health care goods (instruments, etc., and porous loads).

Single copy price: 165.00 (List)/$99.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11140-5-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 5: Class 2 Indicators for Bowie and Dick Air Removal Test Sheets and Packs (reaffirmation of ANSI/AAMI/ISO 11140-5 -2007 (R2012))

Specifies the requirements for Class 2 indicators for Bowie and Dick-type air removal tests used to evaluate the effectiveness of air removal during the pre-vacuum phase of prevacuum steam sterilization cycles.

Single copy price: 135.00 (List)/$81.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11607-1-2006 (R201x), Packaging for terminally sterilized medical devices - Part 1: Requirements for materials, sterile barrier systems and packaging (reaffirmation of ANSI/AAMI/ISO 11607-1-2006 (R2010))

This standard specifies the requirements and test methods for materials, preformed sterile barrier systems, sterile barrier systems and packaging systems that are intended to maintain sterility of terminally sterilized medical devices to the point of use.

Single copy price: 135.00 (List)/$81.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=11607-1&searchoption=ALL

Order from: Hae Choe, (703) 253-8268, HChoe@aami.org; customerservice@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 11607-2-2006 (R201x), Packaging for terminally sterilized medical devices - Part 2: Validation requirements for forming, sealing and assembly processes (reaffirmation of ANSI/AAMI/ISO 11607-2-2006 (R2010))

This standard specifies the requirements for development and validation of processes for packaging medical devices that are terminally sterilized and maintain sterility to the point of use. These processes include forming, sealing and assembly of preformed sterile barrier systems, sterile barrier systems and packaging systems.

Single copy price: 110.00 (List)/$66.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=11607-2&searchoption=ALL

Order from: Hae Choe, (703) 253-8268, HChoe@aami.org; customerservice@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 14708-5-2010 (R201x), Implants for surgery - Active implantable medical devices - Part 5: Circulatory support devices (reaffirmation of ANSI/AAMI/ISO 14708-5-2010)

Specifies requirements for safety and performance of active implantable circulatory support devices. It is not applicable to extracorporeal perfusion devices, cardiomyoplasty, heart-restraint devices and counter-pulsation devices, such as extra- or intra-aortic balloon pumps.

Single copy price: 195.00 (List)/$117.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 18472-2006 (R201x), Sterilization of Health Care Products - Biological and Chemical Indicators - Test Equipment (reaffirmation of ANSI/AAMI/ISO 18472-2006 (R2010))

Specifies the requirements for test equipment to be used to test chemical and biological indicators for steam, ethylene oxide, dry heat and vaporized hydrogen peroxide processes for conformity to the requirements given in ISO 11140-1 for chemical indicators, or the requirements given in the ISO 11138 series for biological indicators. This International Standard also provides informative methods useful in characterizing the performance of biological and chemical indicators for intended use and for routine quality control testing.

Single copy price: 165.00 (List)/$99.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

BSR/AAMI/ISO 25539-3-2012 (R201x), Cardiovascular Implants - Endovascular Devices - Part 3: Vena Cava Filters (reaffirmation of ANSI/AAMI/ISO 25539-3-2012)

Specifies requirements for vena cava filters, based upon current medical knowledge. With regard to safety, it gives requirements for intended performance, design attributes, materials, design evaluation, manufacturing, sterilization, packaging and information supplied by the manufacturer. This part of ISO 25539 supplements ISO 14630, which specifies general requirements for the performance of nonactive surgical implants.

Single copy price: 225.00 (List)/$135.00 (AAMI members)

Obtain an electronic copy from: www.aami.org

Order from: Cliff Bernier, (703) 253-8263, CBernier@aami.org

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

AAMI (Association for the Advancement of Medical Instrumentation)

Withdrawal

ANSI/AAMI EC71-2001 (R2013), Standard communications protocol - Computer assisted electrocardiography (withdrawal of ANSI/AAMI EC71 -2001 (R2013))

This standard specifies the content and structure of information for interchange between digital electrocardiographs (ECG carts) and computer ECG management systems, as well as other computer systems where ECG-related data can be stored. Standard data formats are specified for demographics, ECG rhythm data, reference beats, global measurements, and interpretation. Practical compression of the ECG rhythm data is also standardized. This standard also specifies the two-way digital transmission of remote requests and results between digital ECG carts and heterogeneous computer systems (hosts).

Single copy price: 225.00 (List)/$135.00 (AAMI members)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=ec71&searchoption=ALL

Order from: Hae Choe, (703) 253-8268, HChoe@aami.org; customerservice@aami.org

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ASA (ASC S12) (Acoustical Society of America)

Reaffirmation

BSR/ASA S12.9-2005/Part 4 (R201x), Quantities and Procedures for Description and Measurement of Environmental Sound - Part 4: Noise Assessment and Prediction of Long-Term Community Response (reaffirmation of ANSI S12.9-2005/Part 4)

Specifies methods to assess environmental sounds and to predict the annoyance response of communities to long-term noise from any and all types of environmental sounds produced by one or more distinct or distributed sound sources. The sources may be separate or in various combinations. Application of the method is limited to areas where people reside and related long-term land uses.

Single copy price: $100.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

ASA (ASC S12) (Acoustical Society of America)

Reaffirmation

BSR/ASA S12.69-2010 (R201x), Procedure for Testing Railroad Horns ex situ (reaffirmation of ANSI/ASA S12.69-2010)

Federal regulations require the testing of sound emissions from horns located on railroad locomotives. This Standard specifies an alternate method for compliance with the Federal requirements in metropolitan areas where tests cannot be conducted in an outdoor space free of obstructions. The data that result from this procedure are equivalent to those that derive from the procedure promulgated by the Federal Railroad Administration as described in 49 CFR Part 229.129.

Single copy price: $90.00

Obtain an electronic copy from: asastds@acousticalsociety.org

Order from: Susan Blaeser, (631) 390-0215, asastds@acousticalsociety.org

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

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

Addenda

BSR/ASHRAE Addendum 62.1h-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2013)

The changes to the standard in this proposed addendum are for the purpose of complying with ASHRAE's mandatory language policy for standards. The changes are intended to clarify the requirements and reduce ambiguity in interpretation and enforcement. Many of these changes will change requirements of the standard.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE Addendum 62.1i-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2013)

This proposed addendum changes Appendix F (Separation of Exhaust Outlets and Outdoor Air Intakes) from informative to normative. This proposed addendum is for the purpose of making language in the standard mandatory in compliance with current ASHRAE requirements.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE Addendum 62.2v-201x, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2013)

This proposed addendum addresses inconsistencies that have been in the determination of intermittent ventilation flow rates. It also puts forth explicit mechanisms to meet the equivalency intent of non-continuous ventilation which allows for a broader range of potential control algorithms than had previously been in the standard. It also establishes a short-term exposure limit of 5 times the long-term exposure limit which must be considered when using non-continuous ventilation.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum ai to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum includes wording clarifications to the exceptions of section 5.5.4.1, modifications to vertical fenestration U-factors in climate zones 2-3, reductions to SHGC in zones 4-5, and reverting the skylight U-factor in zone 7 back to the current requirement following additional analysis of skylight energy savings in the reference retail building model.

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

Addenda

BSR/ASHRAE/IES Addendum br to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This revision to Standard 90.1 was developed in response to the update of ASHRAE Standard 169-2013, Climatic Data for Building Design Standards. This addendum covers criteria for Climate Zone 0 of Section 6, and for the mechanical systems portions (Appendixes C and G).

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum bs to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal updates the EER values for water-source VRF products above 65,000 Btu/h. The proposal also establishes, for the first time, minimum IEER values for this product class.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum cd to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal establishes for the first time a product class for DOAS. The intent is to recognize the technology in Standard 90.1 by requiring minimum energy efficiency standards. Integrated Seasonal Moisture Removal Efficiency (ISMRE) and Integrated Seasonal Coefficient of Performance (ISCOP) are proposed for a full range of product classes at standard rating conditions listed in AHRI Standard 920.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum cg to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum modifies the exterior Lighting Power Densities for building exteriors by changing the basis for determining an energy-effective and achievable power density from typical HID or fluorescent to Light Emitting Technology (LED) technology where practical.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum ch to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum modifies the Lighting Power Densities for both space by space and building area methods by including Light Emitting Technology (LED) technology into the lighting systems.

Single copy price: $35.00

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

Addenda

BSR/ASHRAE/IES Addendum cl to Standard 90.1-201x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum revises Table 7.8 to relocate the minimum efficiency requirements for residential water heaters and pool heaters which are established by the U.S. Department of Energy to an informative appendix.

Single copy price: $35.00

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

New Standard

BSR/ASHRAE Standard 90.4P-201x, Energy Standard for Data Centers (new standard)

This is a full second public review of Standard 90.4P that incorporates changes in response to comments submitted on the first public review draft. The Title, Purpose, and Scope of the proposed Standard has been revised to remove “Telecommunications”. Key definitions have been revised and added to better align with other standards and industry practices. The performance-based PUE compliance paths have been revised to better define tradeoff options when both mechanical and electrical systems are part of a project. Simplifications were made to Sections 5, 7, 9, and 10.

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ASTM (ASTM International)

New Standard

BSR/ASTM D7082-201x, Specification for Polyethylene Stay In Place Form System for End Walls for Drainage Pipe (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

New Standard

BSR/ASTM WK48194-201x, Specification for Eye Protectors for Racket Sports (Racquetball, Squash, Tennis) (new standard)

http://www.astm.org/ANSI_SA

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ASTM (ASTM International)

New Standard

BSR/ASTM WK48407-201x, Specification for Throat Protective Equipment for Hockey Goaltenders (new standard)

http://www.astm.org/ANSI_SA

Single copy price: Free

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ASTM (ASTM International)

Revision

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

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F963-201x, Consumer Safety Specification for Toy Safety (revision of ANSI/ASTM F963-2011)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F1163-201x, Specification for Protective Headgear Used in Horse Sports and Horseback Riding (revision of ANSI/ASTM F1163-2013)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F1292-201x, Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment (revision of ANSI/ASTM F1292-2013)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F1446-201x, Test Methods for Equipment and Procedures Used in Evaluating the Performance Characteristics of Protective Headgear (revision of ANSI/ASTM F1446-2015)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F1975-201x, Specification for Nonpowered Bicycle Trailers Designed for Human Passengers (revision of ANSI/ASTM F1975-2009)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F2223-201x, Guide for ASTM Standards on Playground Surfacing (revision of ANSI/ASTM F2223-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F2508-201x, Practice for Validation, Calibration, and Certification of Walkway Tribometers Using Reference Surfaces (revision of ANSI/ASTM F2508-2015)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F2654-201x, Specification for Airsoft Gun Warnings (revision of ANSI/ASTM F2654-2015)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F2810-201x, Specification for Elliptical Trainers (revision of ANSI/ASTM F2810-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F2811-201x, Test Methods for Evaluating Design and Performance Characteristics of Elliptical Trainers (revision of ANSI/ASTM F2811-2010)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F3059-201x, Specification for Fiber-Reinforced Polymer (FRP) Gratings Used in Marine Construction and Shipbuilding (revision of ANSI/ASTM F3059-2014)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F3104-201x, Test Methods for Evaluating Design and Performance Characteristics of Externally Loaded Strength Training Equipment, Strength Training Benches and External Weight Storage Equipment (revision of ANSI/ASTM F3104-2014)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

ASTM (ASTM International)

Revision

BSR/ASTM F3105-201x, Specification for Externally Loaded Strength Training Equipment, Strength Training Benches and External Weight Storage Equipment (revision of ANSI/ASTM F3105-2014)

http://www.astm.org/ANSI_SA

Single copy price: Free

Obtain an electronic copy from: cleonard@astm.org

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

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

AWS (American Welding Society)

New Standard

BSR/AWS-NAVSEA B2.1-1-302-201x, Standard Welding Procedure Specification for Naval Applications (SWPS-N) for Shielded Metal Arc Welding of Carbon Steel (S-1), 1/8 inch [3 mm] through 1-1/2 inch [38 mm] Thick, MIL-7018-M, in the As-Welded or PWHT Condition, Primarily Plate and Structural Naval Applications (new standard)

This standard contains the essential welding variables for carbon steel in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using manual shielded metal arc welding. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and joint designs for fillet welds, partial penetration groove welds, full penetration groove welds with backing, and full penetration welds that are welded from both sides. This SWPS-N was developed primarily for naval applications that require performance to NAVSEA Technical Publication S9074-AQGIB -010/248.

Single copy price: $124.00

Obtain an electronic copy from: jrosario@aws.org

Order from: Jennifer Rosario, (800) 443-9353, jrosario@aws.org

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

AWS (American Welding Society)

New Standard

BSR/AWS-NAVSEA B2.1-1-312-201X, Standard Welding Procedure Specification for Naval Applications (SWPS-N) for Shielded Metal Arc Welding of Carbon Steel (S-1), 1/8 inch [3 mm] through 1-1/2 inch [38 mm] Thick, MIL-7018-M, in the As-Welded or PWHT Condition, Primarily Pipe for Naval Applications (new standard)

This standard contains the essential welding variables for carbon steel in the thickness range of 1/8 inch [3 mm] through 1-1/2 inch [38 mm], using manual shielded metal arc welding. It cites the base metals and operating conditions necessary to make the weldment, the filler metal specifications, and joint designs for fillet welds, full penetration groove welds with backing, and joints welded from both sides. This SWPS-N was developed primarily for naval applications that require performance to NAVSEA Technical Publication S9074-AQ-GIB-010/248.

Single copy price: $124.00

Obtain an electronic copy from: jrosario@aws.org

Order from: Jennifer Rosario, (800) 443-9353, jrosario@aws.org

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

AWS (American Welding Society)

Revision

BSR/AWS C2.21M/C2.21-201X, Specification for Thermal Spray Equipment Performance Verification (revision of ANSI/AWS C2.21M/C2.21-2003)

This standard specifies the essential elements of a procedure for verifying the performance of thermal spray equipment to ensure it is capable of operating according to the manufacturer's specifications or those established by the User.

Single copy price: $26.00

Obtain an electronic copy from: jrosario@aws.org

Order from: Jennifer Rosario, (800) 443-9353, jrosario@aws.org

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

BIFMA (Business and Institutional Furniture Manufacturers Association)

Revision

BSR/BIFMA X5.6-201X, Panel Systems - Tests (revision of ANSI/BIFMA X5.6-2010)

This standard is intended to provide a common basis for evaluating the safety, durability, and structural performance of panel systems products.

Single copy price: Free

Obtain an electronic copy from: dpanning@bifma.org

Order from: David Panning, (616) 285-3963, dpanning@bifma.org

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

CSA (CSA Group)

Reaffirmation

BSR Z21.23-2010 (R201x), Gas Appliance Thermostats (reaffirmation of ANSI Z21.23-2010)

Details test and examination criteria for integral gas valve type and electric type thermostats which are used as integral parts of gas-burning appliances. It presents minimum levels for the substantial and durable construction, safe operation and acceptable performance for such thermostats. The standard does not apply to wall-mounted thermostats for comfort heating control.

Single copy price: Free

Obtain an electronic copy from: cathy.rake@csagroup.org

Order from: Cathy Rake, (216) 524-4990 x88321, cathy.rake@csagroup.org

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

CSA (CSA Group)

Reaffirmation

BSR Z21.78-2010 (R201x), Combination Gas Controls for Gas Appliances (same as CSA 6.20-2010) (reaffirmation of ANSI Z21.78-2010)

Details test and examination criteria for combination gas controls having a maximum operating gas pressure of 1/2 psi (3.45 kPa) with one or more of the following fuel gases: natural, manufactured, mixed, liquefied petroleum, and liquefied petroleum gas-air mixtures.

Single copy price: Free

Obtain an electronic copy from: cathy.rake@csagroup.org

Order from: Cathy Rake, (216) 524-4990 x88321, cathy.rake@csagroup.org

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

CSA (CSA Group)

Revision

BSR Z21.1-201x, Standard for Household Cooking Gas Appliances (same as CSA 1.1) (revision, redesignation and consolidation of ANSI Z21.1-2010, ANSI Z21.1a-2011, and ANSI Z21.1b-2012)

Details test and examination criteria for household cooking appliances for use with natural manufactured and mixed gases, liquefied petroleum gases, and LP gas-air mixtures. The standard defines a household cooking gas appliance as an appliance for domestic food preparation, providing at least one function of (1) top or surface cooking, (2) oven cooking, or (3) broiling.

Single copy price: Free

Obtain an electronic copy from: cathy.rake@csagroup.org

Order from: Cathy Rake, (216) 524-4990 x88321, cathy.rake@csagroup.org

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

IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)

Revision

BSR/ASSE 1070-201x/ASME A112.1070-201x/CSA B125.70-15, Performance Requirements for Water Temperature Limiting Devices (revision of ANSI/ASSE 1070-2004)

This Standard covers water-temperature-limiting devices intended to limit the hot or tempered water temperature supplied to fittings for fixtures such as sinks, bidets, lavatories, and bathtubs to reduce the risk of scalding. These devices are not designed to address thermal shock.

Single copy price: Free

Obtain an electronic copy from: conrad.jahrling@asse-plumbing.org

Order from: Conrad Jahrling, (708) 995-3017, conrad.jahrling@asse-plumbing.org

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

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 214-1-201x, MPEG DASH for IP-Based Cable Services - Part 1: MPD Constraints and Extensions (new standard)

This standard is part of a suite documenting usage of MPEG DASH in IP-based cable networks. It specifies restrictions on MPD and codecs that apply to both MPEG-2 TS and ISO-BMFF segments. Thus, DASH/TS profile is a combination of Part 1 (this standard) and Part 2 (which defines aspects specific to MPEG-2 TS), and, analogously, DASH/FF profile is a combination of Part 1 and Part 3 (which defines aspects specific to ISO-BMFF). The DASH/TS profile is also very similar to the adaptive transport stream source description defined in SCTE 215.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

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

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 214-2-2015, MPEG DASH for IP-Based Cable Services - Part 2: DASH/TS Profile (new standard)

This standard is part of a suite documenting use of MPEG DASH in cable networks. This document is not a standalone standard - the complete DASH/TS profile is a combination of this document and SCTE 214-1. The latter document defines restrictions on the MPD that are container-independent, applying to both MPEG-2 TS and ISO-BMFF segments. This document defines DASH/TS - a profile of MPEG DASH, which uses MPEG-2 TS segments. In addition, this profile integrates elements of SCTE specifications on which define media formats and digital program insertion.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

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

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 214-3-2015, MPEG DASH for IP-Based Cable Services - Part 3: DASH/FF Profile (new standard)

This standard is part of a suite documenting use of MPEG DASH in cable networks. This part of the standard defines a profile of MPEG DASH which is based on the ISO BMFF Common Profile. It also defines inband carriage of information typically present in cable systems - such as closed captioning and cue messages - in DASH ISO-BMFF media segments. This profile is a combination of generic restrictions in SCTE 214-1 and restrictions specific to ISO-BMFF specified in this standard.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

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

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 215-1-201x, HEVC Video Constraints for Cable Television - Part 1: Coding (new standard)

This document defines the coding constraints on ITU-T Rec. H.265 | ISO/IEC 23008-2 video compression (hereafter called "HEVC") for Cable Television. In particular, this document describes the coding of a single HEVC coded video elementary stream carried in MPEG-2 transport (ISO/IEC 13818-1) for linear delivery systems supporting ad insertion services. Beyond linear delivery with DPI, signaling is provided for segmentation of content for xDVR applications.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

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

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 215-2-201x, HEVC Video Constraints for Cable Television - Part 2: Transport (new standard)

This document defines the transport constraints on ITU-T Rec. H.265 | ISO/IEC 23008-2 video compression (hereafter called "HEVC") for Cable Television. In particular, this document describes the transmission of a single HEVC coded video elementary stream constrained per SCTE 215-1 over MPEG-2 transport (ISO/IEC 13818-1 for linear delivery systems supporting ad insertion services. Beyond linear delivery with DPI, signaling is provided for segmentation of contents for xDVR applications.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

Send comments (with copy to psa@ansi.org) to: Rebecca Yaletchko, (480) 252-2330, ryaletchko@scte.org

SCTE (Society of Cable Telecommunications Engineers)

New Standard

BSR/SCTE 216-201x, Adaptive Power System Interface Specification (APSIS) (new standard)

This document is part of the work being done in SCTE's Standards Energy Management Subcommittee (EMS). The Adaptive Power System Interface Specification (APSISTM) working group under the EMS is responsible for the creation and updates of this document. The document was developed for the benefit of the cable industry and includes contributions by cable operators, vendors and industry support organizations. While the initial intent of this document is to support the cable industry, the process, methodology, and results of this effort may be applicable to other telecommunications networks.

Single copy price: $50.00

Obtain an electronic copy from: standards@scte.org

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

Send comments (with copy to psa@ansi.org) to: Rebecca Yaletchko, (480) 252-2330, ryaletchko@scte.org

TAPPI (Technical Association of the Pulp and Paper Industry)

New Standard

BSR/TAPPI T 403 om-201x, Bursting Strength of Paper (new standard)

This test method describes the measurement of the bursting strength of paper. This method applies to paper products having a bursting strength of 50 kPa up to 1200 kPa (7 psi up to 175 psi) and in the form of flat sheets with a maximum thickness of 0.6 mm (0.025 in.). Materials that can be tested using this method include newsprint, bag paper, fine paper, packaging paper, and printing papers. It is not intended for use in testing corrugated, fiberboard, linerboard, or hardboards that tend to cut the thin rubber diaphragm of the bursting tester.

Single copy price: Free

Obtain an electronic copy from: standards@tappi.org

Order from: Laurence Womack, (770) 209-7277, standards@tappi.org

Send comments (with copy to psa@ansi.org) to: Laurence Womack, (770) 209-7277, standards@tappi.org

TAPPI (Technical Association of the Pulp and Paper Industry)

New Standard

BSR/TAPPI T 567 om-201x, Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement (new standard)

This method provides a means for determining the Effective Residual Ink Concentration (ERIC) in deinked pulp and paper made from recycled feedstock.

Single copy price: Free

Obtain an electronic copy from: standards@tappi.org

Order from: Laurence Womack, (770) 209-7277, standards@tappi.org

Send comments (with copy to psa@ansi.org) to: Laurence Womack, (770) 209-7277, standards@tappi.org

TIA (Telecommunications Industry Association)

New Standard

BSR/TIA 604-18-201x, FOCIS 18- Fiber Optic Connector Intermateability Standard Type 1x16 and 2 x 16 Multifiber Push- On/Multifiber Termination Push-On (new standard)

This document develops a Fiber Optic Connector Intermateability Standard that accommodates a 1x16 and 2x16 Multifiber Push-On/Multifiber Termination Push-On connector assembly.

Single copy price: $77.00

Obtain an electronic copy from: standards@tiaonline.org

Order from: Telecommunications Industry Association (TIA); standards@tiaonline.org

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

TPI (Truss Plate Institute)

New Standard

BSR/TPI 3-201x, Design of Bracing for Metal Plate Connected Wood Trusses (new standard)

This standard will provide information on the design of temporary and permanent bracing of metal plate connected wood trusses. Included will be basic bracing principles, installation loads, methodology for determining maximum spacing of temporary lateral braces along chords and webs under installation loads, methodology for determining what forces the lateral braces (temporary and permanent) must resist, and methodology for designing the temporary and permanent bracing and bracing connections.

Single copy price: Free (online download); $20.00 (paper copy plus shipping & handling)

Obtain an electronic copy from: www.tpinst.org

Order from: Jay Jones, (703) 683-1010, jpjones@tpinst.org

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

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 363-2011 (R201X), Standard for Knife Switches (reaffirmation of ANSI/UL 363-2011)

Reaffirmation and continuance of the eleventh edition of the Standard for Knife Switches.

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: Vickie Hinton, (919) 549 -1851, Vickie.T.Hinton@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 120404-2012 (R201x), Standard for Pressurized Enclosures (Proposal dated 09-04-15) (reaffirmation and redesignation of ANSI/ISA 12.04.04-2012)

Reaffirmation and continuance of the 1st edition of the ANSI/ISA 12.04.04 -2012 Standard for Pressurized Enclosures under UL 120404.

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: Vickie Hinton, (919) 549 -1851, Vickie.T.Hinton@ul.com

UL (Underwriters Laboratories, Inc.)

Reaffirmation

BSR/UL 121203-2011 (R201X), Standard for Portable Electronic Products Suitable for Use in Class I and II, Division 2, Class I, Zone 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations (Proposal dated 09-04-15) (reaffirmation and redesignation of ANSI/ISA 12.12.03-2011)

Reaffirmation and continuance of the 1st edition of the ANSI/ISA 12.12.03 -2011 Standard for Portable Electronic Products Suitable for Use in Class I and II, Division 2, Class I, Zone 2 and Class III, Division 1 and 2 Hazardous (Classified) Locations under UL 121203.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: Vickie Hinton, (919) 549-1851, Vickie.T.Hinton@ul.com

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1370-201X, Standard for Safety for Unvented Alcohol Fuel Burning Decorative Appliances (revision of ANSI/UL 1370-2014)

UL proposes the following changes to UL 1370: modifications to the scope, fuel capacity and test room size; editorial correction and addition; and test requirements for outdoor appliances.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: http://www.comm-2000.com

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

Comment Deadline: November 3, 2015

ASME (American Society of Mechanical Engineers)

New Standard

BSR/ASME PTC 4.3-201x, Air Heaters (new standard)

This Code applies to all air heaters used in industrial application, for example, air heaters servicing steam generators and industrial furnaces. This specifically includes:

(a) Combustion gas-to-air heat exchanger including air heaters with multi-section air streams.

(b)Air preheater coils utilizing non condensing (single phase) steam, water, or other hot fluids. This code does not cover direct-fired air heaters or gas-to-gas heat exchangers. In the latter application, this Code may be used to determine both the thermal and pressure drop performance while alternate methods of leakage measurement should be agreed upon between the parties. This code also does not cover heat exchangers where the heating fluid is condensed while passing through the heater. Air heaters in parallel shall be tested individually (wherever possible) for purposes of checking standard or design performance.

Single copy price: Free

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

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

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

NASBLA (National Association of State Boating Law Administrators)

New Standard

BSR/NASBLA 102-201X, Basic Boating Knowledge - Sailing (new standard)

This standard applies to basic sailing knowledge education and proficiency assessment in the United States, U.S. Territories, and D.C. The document establishes the national standard for basic recreational sailing knowledge with a primary focus on safety and mitigation of risks associated with recreational sail boating.

Single copy price: Free

Obtain an electronic copy from: pam@nasbla.org

Order from: Pamela Dillon, (859) 225-9487, pam@nasbla.org

Send comments (with copy to psa@ansi.org) to: Pamela Dillon, (859) 225 -9487, pam@nasbla.org

NASBLA (National Association of State Boating Law Administrators)

New Standard

BSR/NASBLA 106-201X, Basic Boating Knowledge - Trailering (new standard)

The purpose and scope of this document is to recommend minimum standards for instructing boaters how to select the proper trailer components, and to safely launch, recover, transit, and store boats on trailers.

Single copy price: Free

Obtain an electronic copy from: pam@nasbla.org

Order from: Pamela Dillon, (859) 225-9487, pam@nasbla.org

Send comments (with copy to psa@ansi.org) to: Pamela Dillon, (859) 225 -9487, pam@nasbla.org

UL (Underwriters Laboratories, Inc.)

New National Adoption

BSR/UL 60335-2-79-201X, Standard for Safety for Household and Similar Electrical Appliances - Part 2: Particular Requirements for High Pressure Cleaners (Proposal dated 9-4-15) (national adoption with modifications of IEC 60335-2-79)

This proposal includes adoption of IEC 60335-2-79, Household and Similar Electrical Appliances, Part 2: Particular Requirements for High Pressure Cleaners as a new IEC-based UL Standard, UL 60335-2-79 with US differences.

Single copy price: Contact comm2000 for pricing and delivery options

Obtain an electronic copy from: www.comm-2000.com

Order from: comm2000

Send comments (with copy to psa@ansi.org) to: Ross Wilson, (919) 549 -1511, Ross.Wilson@ul.com

WMMA (ASC O1) (Wood Machinery Manufacturers of America)

New Standard

BSR WMMA O1.1-4-201x, Safety Requirements for Shapers (new standard)

Safety requirements for shapers for the woodworking industry.

Single copy price: $25.00

Obtain an electronic copy from: jennifer@wmma.org

Order from: Jennifer Miller, (443) 640-1052, jennifer@wmma.org

Send comments (with copy to psa@ansi.org) to: Jennifer Miller, (443) 640 -1052, jennifer@wmma.org

Corrections

Repeated Listing

INCITS/ISO 19144-1:2009 [R2015]

In the Call-for-Comment section of the August 28th issue of Standards Action, INCITS/ISO 19144-1:2009 [R2015] was accidentally listed twice. There is only one version of this standard available for review.

Incorrect Designation

INCITS/ISO 19136:2007 [R2015]

In the Call-for-Comment section of the August 28th issue of Standards Action, INCITS/ISO 19136:2007 [R2015] was listed as INCITS/ISO/IEC 19136:2007 [R2015]. It is not an ISO/IEC standard.

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: *Hae Choe*

Phone: (703) 253-8268

Fax: (703) 276-0793

E-mail: HChoe@aami.org; customerservice@aami.org

ANSI/AAMI EC71-2001 (R2013), Standard communications protocol - Computer assisted electrocardiography (withdrawal of ANSI/AAMI EC71-2001 (R2013))

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=ec71&searchoption=ALL

BSR/AAMI EC12-2000 (R201x), Disposable ECG electrodes (reaffirmation of ANSI/AAMI EC12-2000 (R2010))

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=ec12&searchoption=ALL

BSR/AAMI/IEC 60601-2-4-2010 (R201x), Medical electrical equipment - Part 2-4: Particular requirements for the basic safety and essential performance of cardiac defibrillators (reaffirmation of ANSI/AAMI/IEC 60601-2-4-2010)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=IEC+60601-2-4&searchoption=ALL

BSR/AAMI/IEC 62304-2006/Amd 1-201x, Medical device software - Software life cycle processes, Amendment 1 (identical national adoption of IEC 62304:2006/Amd 1)

Obtain an electronic copy from: https://standards.aami.org/kws/groups/PUBLIC_REV/download/6907

BSR/AAMI/IEC 80601-2-30-2009 (R201x), Medical electrical equipment - Part 2-30: Particular requirements for the basic safety and essential performance of automated type non-invasive sphygmomanometers (reaffirmation of ANSI/AAMI/IEC 80601-2-30-2009)

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=80601-2-30&searchoption=ALL

BSR/AAMI/ISO 8637-2010 (R201x), Cardiovascular Implants and Extracorporeal Systems - Hemodialyzers, Hemodiafilters, Hemofilters and Hemoconcentrators (reaffirmation of ANSI/AAMI/ISO 8637-2010)

BSR/AAMI/ISO 8637-2010 (R201x), Cardiovascular Implants and Extracorporeal Systems - Hemodialyzers, Hemodiafilters, Hemofilters and Hemoconcentrators (reaffirmation of ANSI/AAMI/ISO 8637-2010)

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 8638-2010 (R201x), Cardiovascular implants and extracorporeal systems - Extracorporeal blood circuit for hemodialyzers, hemodiafilters and hemofilters (reaffirmation of ANSI/AAMI/ISO 8638-2010)

BSR/AAMI/ISO 8638-2010 (R201x), Cardiovascular implants and extracorporeal systems - Extracorporeal blood circuit for hemodialyzers, hemodiafilters and hemofilters (reaffirmation of ANSI/AAMI/ISO 8638-2010)

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11138-1-2006 (R201x), Sterilization of health care products - Biological indicators - Part 1: General requirements (reaffirmation of ANSI/AAMI/ISO 11138-1-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11138-2-2006 (R201x), Sterilization of health care products - Biological indicators - Part 2: Biological indicators for ethylene oxide sterilization processes (reaffirmation of ANSI/AAMI/ISO 11138-2-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11138-3-2006 (R201x), Sterilization of health care products - Biological indicators - Part 3: Biological indicators for moist heat sterilization processes (reaffirmation of ANSI/AAMI/ISO 11138-3-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11138-4-2006 (R201x), Sterilization of Health Care Products - Biological Indicators - Part 4: Biological Indicators for Dry Heat Sterilization Processes (reaffirmation of ANSI/AAMI/ISO 11138-4-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11138-5-2006 (R201x), Sterilization of Health Care Products - Biological Indicators - Part 5: Biological Indicators for Low-Temperature Steam and Formaldehyde Sterilization Processes (reaffirmation of ANSI/AAMI/ISO 11138-5-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11140-3-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 3: Class 2 Indicator Systems for Use in the Bowie and Dick-Type Steam Penetration Test (reaffirmation of ANSI/AAMI/ISO 11140-3-2007 (R2012))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11140-4-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 4: Class 2 Indicators as an Alternative to Bowie and Dick Test for Detection of Steam Penetration (reaffirmation of ANSI/AAMI/ISO 11140-4-2007 (R2012))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11140-5-2007 (R201x), Sterilization of Health Care Products - Chemical Indicators - Part 5: Class 2 Indicators for Bowie and Dick Air Removal Test Sheets and Packs (reaffirmation of ANSI/AAMI/ISO 11140-5-2007 (R2012))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 11607-1-2006 (R201x), Packaging for terminally sterilized medical devices - Part 1: Requirements for materials, sterile barrier systems and packaging (reaffirmation of ANSI/AAMI/ISO 11607-1-2006 (R2010))

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=11607-1&searchoption=ALL

BSR/AAMI/ISO 11607-2-2006 (R201x), Packaging for terminally sterilized medical devices - Part 2: Validation requirements for forming, sealing and assembly processes (reaffirmation of ANSI/AAMI/ISO 11607-2-2006 (R2010))

Obtain an electronic copy from: http://my.aami.org/store/SearchResults.aspx?searchterm=11607-2&searchoption=ALL

BSR/AAMI/ISO 14708-5-2010 (R201x), Implants for surgery - Active implantable medical devices - Part 5: Circulatory support devices (reaffirmation of ANSI/AAMI/ISO 14708-5-2010)

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 18472-2006 (R201x), Sterilization of Health Care Products - Biological and Chemical Indicators - Test Equipment (reaffirmation of ANSI/AAMI/ISO 18472-2006 (R2010))

Obtain an electronic copy from: www.aami.org

BSR/AAMI/ISO 25539-3-2012 (R201x), Cardiovascular Implants - Endovascular Devices - Part 3: Vena Cava Filters (reaffirmation of ANSI/AAMI/ISO 25539-3-2012)

Obtain an electronic copy from: www.aami.org

ASA (ASC S12) (Acoustical Society of America)

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

Contact: *Susan Blaeser*

Phone: (631) 390-0215

Fax: (631) 923-2875

E-mail: asastds@acousticalsociety.org

BSR/ASA S12.9-2005/Part 4 (R201x), Quantities and Procedures for Description and Measurement of Environmental Sound - Part 4: Noise Assessment and Prediction of Long-Term Community Response (reaffirmation of ANSI S12.9-2005/Part 4)

Obtain an electronic copy from: asastds@acousticalsociety.org

BSR/ASA S12.69-2010 (R201x), Procedure for Testing Railroad Horns ex situ (reaffirmation of ANSI/ASA S12.69-2010)

Obtain an electronic copy from: asastds@acousticalsociety.org

IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)

Office: 18927 Hickory Creek Dr Suite 220
Mokena, IL 60448

Contact: *Conrad Jahrling*

Phone: (708) 995-3017

Fax: (708) 479-6139

E-mail: conrad.jahrling@asse-plumbing.org

BSR/ASSE 1030-201x, Performance Requirements for Positive Pressure Reduction Devices for Sanitary Drainage Systems (revision of ANSI/ASSE 1030-2013)

BSR/ASSE 1066-201x, Performance Requirements for Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings (new standard)

NSF (NSF International)

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

Contact: *Lauren Panoff*

Phone: (734) 769-5197

E-mail: lpanoff@nsf.org

BSR/NSF 14-201x (i71r1), Plastic Piping System Components and Related Materials (revision of ANSI/NSF 14-2015)

SPRI (Single Ply Roofing Institute)

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

Contact: *Linda King*

Phone: (781) 647-7026

Fax: (781) 647-7222

E-mail: info@spri.org

BSR/SPRI IA-1-201x, Standard Field Test Procedure for Determining the Mechanical Uplift Resistance of Insulation Adhesives over Various Substrates (revision and redesignation of ANSI/SPRI IA-1-2010)

TAPPI (Technical Association of the Pulp and Paper Industry)

Office: 15 Technology Parkway South
Peachtree Corners, GA 30092

Contact: *Laurence Womack*

Phone: (770) 209-7277

Fax: (770) 446-6947

E-mail: standards@tappi.org

BSR/TAPPI T 425 om-2011 (R201x), Opacity of paper (15/d geometry, illuminant A/2 degrees, 89% reflectance backing and paper backing) (reaffirmation of ANSI/TAPPI T 425 om-2011)

BSR/TAPPI T 822 om-2011 (R201x), Ring Crush of Paperboard (Rigid Support Method) (reaffirmation of ANSI/TAPPI T 822 om-2011)

TIA (Telecommunications Industry Association)

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

Contact: *Marianna Kramarikova*

Phone: (703) 907-7743

E-mail: standards@tiaonline.org

BSR/TIA 102.CCAA-B-201x, Project 25, Phase 2 Two-Slot Time Division Multiple Access, Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CCAA-A-2014)

BSR/TIA 102.CAAA-E-201x, Digital C4FM/CQPSK Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CAAA-D-2013,)

BSR/TIA 455-171-B-201x, Attenuation by Substitution Measurement for Short Length Multimode Graded Index and Single-Mode Optical Fiber Cable Assemblies (identical national adoption of IEC 61300-3-4/Ed3)

BSR/TIA 603-E-201x, Land Mobile FM or PM - Communications Equipment - Measurement and Performance Standards (revision and redesignation of ANSI/TIA 603-D-2010)

BSR/TIA 920.110-B-201x, Telecommunications - Telephone Terminal Equipment - Transmission Requirements for Digital Telephones with Handsets (new standard)

Obtain an electronic copy from: TIA

UL (Underwriters Laboratories, Inc.)

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

Contact: *Ross Wilson*

Phone: (919) 549-1511

Fax: (631) 271-6200

E-mail: Ross.Wilson@ul.com

BSR/UL 83A-201x, Standard for Safety for Thermoplastic-Insulated Wires and Cables - High Temperature (new standard)

BSR/UL 2586-201x, Standard for Safety for Hose Nozzle Valves (revision of ANSI/UL 2586-2014)

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

BSR/UL 60335-2-79-201X, Standard for Safety for Household and Similar Electrical Appliances, Part 2: Particular Requirements for High Pressure Cleaners (Proposal dated 9-4-15) (national adoption with modifications of IEC 60335-2-79)

Obtain an electronic copy from: www.comm-2000.com

WMMA (ASC O1) (Wood Machinery Manufacturers of America)

Office: 9 Newport Drive
Suite 200
Forest Hill, MD 21050

Contact: *Jennifer Miller*

Phone: (443) 640-1052

Fax: (443) 640-1031

E-mail: jennifer@wmma.org

BSR WMMA O1.1-4-201x, Safety Requirements for Shapers (new standard)

Obtain an electronic copy from: jennifer@wmma.org

Call for Members (ANS Consensus Bodies)

Call for Participation

Working Group Members for ASSE 1024 – Performance Requirements for Water Pressure Reducing Valves for Domestic Water Distribution Systems

ASSE International (division of IAPMO) is requesting additional working group members for ASSE 1024 – Performance requirements for water pressure reducing valves for domestic water distribution systems. Those who have interest in contributing to its development should contact Conrad Jahrling, staff engineering supervisor, at staffengineer@asse-plumbing.org.

Final Actions on American National Standards

The standards actions listed below have been approved by the ANSI Board of Standards Review (BSR) or by an ANSI-Audited Designator, as applicable.

AAMI (Association for the Advancement of Medical Instrumentation)

Reaffirmation

ANSI/AAMI NS28-1988 (R2015), Intracranial pressure monitoring devices (reaffirmation of ANSI/AAMI NS28-1988 (R2010)): 8/31/2015

ASABE (American Society of Agricultural and Biological Engineers)

Withdrawal

ANSI/ASAE S370.5-2011, 2000-RPM Power Take-Off for Lawn and Garden Ride-On Tractors (withdrawal of ANSI/ASAE S370.5-2011): 8/31/2015

AWWA (American Water Works Association)

Reaffirmation

ANSI/AWWA C707-2010 (R2015), Encoder-Type Remote-Registration Systems for Cold-Water Meters (reaffirmation of ANSI/AWWA C707 -2010): 8/31/2015

ECIA (Electronic Components Industry Association)

New Standard

ANSI/EIA 364-116-2015, Pin Contact Stability Test Procedure for Electrical Connectors (new standard): 8/21/2015

IKECA (International Kitchen Exhaust Cleaning Association)

New Standard

ANSI/IKECA-I10-2015, Standard for the Methodology for Inspection of Commercial Kitchen Exhaust Systems (new standard): 8/31/2015

NPES (ASC CGATS) (Association for Suppliers of Printing, Publishing and Converting Technologies)

New National Adoption

ANSI CGATS 12642-2 (IT8.7/4)-2015, Graphic technology - Input data for characterization of 4-colour process printing - Part 2: Expanded data set (identical national adoption of ISO 12642-2): 8/31/2015

SAAMI (Sporting Arms and Ammunition Manufacturers Institute)

New Standard

* ANSI/SAAMI Z299.1-2015, Voluntary Industry Performance Standards for Pressure and Velocity of Rimfire Sporting Ammunition for Use by Commercial Manufacturers (new standard): 8/31/2015

* ANSI/SAAMI Z299.2-2015, Voluntary Industry Performance Standards for Pressure and Velocity of Shotshell Ammunition for Use by Commercial Manufacturers (new standard): 8/31/2015

UL (Underwriters Laboratories, Inc.)

Reaffirmation

ANSI/UL 1411-2011 (R2015), Standard for Safety for Transformers and Motor Transformers for Use in Audio-, Radio-, and Television-Type Appliances (reaffirmation of ANSI/UL 1411-2011): 8/31/2015

Revision

ANSI/UL 796F-2015, Standard for Safety for Flexible Materials Interconnect Constructions (revision of ANSI/UL 796F-2012): 8/28/2015

VITA (VMEbus International Trade Association (VITA))

New Standard

ANSI/VITA 49a-2015, Spectrum Survey Interoperability Specification (new standard): 8/31/2015

Reaffirmation

ANSI/VITA 42.6-2009 (R2015), XMC 10 Gigabit Ethernet 4-Lane Protocol Layer Standard (reaffirmation of ANSI/VITA 42.6-2009): 8/31/2015

ANSI/VITA 46.10-2009 (R2015), Rear Transition Module for VPX (reaffirmation of ANSI/VITA 46.10-2009): 8/31/2015

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.

AWS (American Welding Society)

Office: 8669 NW 36 ST., #130
Miami, FL 33166

Contact: *Peter Portela*

Fax: (305) 443-5951

E-mail: pportela@aws.org

BSR/AWS C7.6/C7.6M-201x, Process Specification and Operator Qualification for Laser Hybrid Welding (new standard)

Stakeholders: Fabricators and procurement organizations within the laser welding community.

Project Need: This document will provide standardization for companies who choose to specify the use of hybrid laser/arc welding processes and guidance to fabricators who use this set of processes to fabricate welded assemblies. It will also provide guidance to personnel who are tasked with developing process procedures.

This document will provide a list of normative references, a short glossary of specialized terms related to the use of hybrid laser/arc welding, and short description of special hazards associated with the processes. Once these areas have been addressed, requirements for development of procedures and use of the process for fabrication will be listed along with the appropriate methods for documenting how the requirements are met. This will be followed by sections on appropriate weld quality examinations, quality assurance, and work approval. A short section on requirements for equipment calibration will also be included.

IAPMO (ASSE Chapter) (ASSE International Chapter of IAPMO)

Office: 18927 Hickory Creek Dr Suite 220
Mokena, IL 60448

Contact: *Conrad Jahrling*

Fax: (708) 479-6139

E-mail: conrad.jahrling@asse-plumbing.org

BSR/ASSE 1030-201x, Performance Requirements for Positive Pressure Reduction Devices for Sanitary Drainage Systems (revision of ANSI/ASSE 1030-2013)

Stakeholders: Plumbing industry, commercial building construction industry.

Project Need: Update the referenced standards list.

Positive pressure reduction devices are to be used in building drainage waste and vent (DWV) systems. They are intended to reduce the impact of short duration air pressure transients that arise in DWV networks through use. They are not intended to have any effect on long-duration or steady-state offsets in air pressure.

BSR/ASSE 1066-201x, Performance Requirements for Individual Pressure Balancing In-Line Valves for Individual Fixture Fittings (new standard)

Stakeholders: Plumbing industry.

Project Need: Revise technical content to reflect current practice and public need.

This standard applies to automatic pressure balancing in-line valves, which are used to equalize incoming hot- and cold-water line pressures for the purpose of minimizing mixed water temperature variations due to pressure fluctuations when used in conjunction with a mixing valve or two-handle valve set. They are not designed to limit the maximum outlet temperature at the point-of-use. These devices are intended for use in individual plumbing fixtures fittings such as shower heads, bath utility faucets, and sink and lavatory faucets.

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 IA-1-201x, Standard Field Test Procedure for Determining the Mechanical Uplift Resistance of Insulation Adhesives over Various Substrates (revision and redesignation of ANSI/SPRI IA-1 -2010)

Stakeholders: Building owners, architects, engineers, roofing consultants, roofing contractors, roofing material manufacturers.

Project Need: Review and revise current standard. Recanvass as per required procedures 5-year cycle.

This standard specifies a field-testing procedure to determine the mechanical uplift resistance of a specific roof insulation/adhesive combination. This testing procedure encompasses various types of insulation adhesives, substrates, and insulations.

TAPPI (Technical Association of the Pulp and Paper Industry)

Office: 15 Technology Parkway South
Peachtree Corners, GA 30092

Contact: *Laurence Womack*

Fax: (770) 446-6947

E-mail: standards@tappi.org

BSR/TAPPI T 425 om-2011 (R201x), Opacity of paper (15/d geometry, illuminant A/2 degrees, 89% reflectance backing and paper backing) (reaffirmation of ANSI/TAPPI T 425 om-2011)

Stakeholders: Manufacturers of pulp, paper, packaging, or related products, consumers or converters of such products, and suppliers of equipment, supplies, or raw materials for the manufacture of such products.

Project Need: To conduct required five-year review of an existing TAPPI/ANSI standard in order to revise if needed to address new technology or correct errors.

Opacity is a fundamental optical property of paper as a whole, yet the measurement of opacity is determined by a ratio of reflectance measurements. The opacity of the sheet is influenced by thickness, the amount and kind of filler, degree of bleaching of the fibers, coating, and the like. The utility of bond, writing, and book papers is enhanced by a high opacity.

BSR/TAPPI T 822 om-2011 (R201x), Ring Crush of Paperboard (Rigid Support Method) (reaffirmation of ANSI/TAPPI T 822 om-2011)

Stakeholders: Manufacturers of pulp, paper, packaging, or related products, consumers or converters of such products, and suppliers of equipment, supplies, or raw materials for the manufacture of such products.

Project Need: To conduct required five-year review of an existing TAPPI/ANSI standard in order to revise if needed to address new technology or correct errors.

The ring crush test correlates with edgewise compression strength of paperboard.

TIA (Telecommunications Industry Association)

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

Contact: *Marianna Kramarikova*

E-mail: standards@tiaonline.org

BSR/TIA 102.CAAA-E-201x, Digital C4FM/CQPSK Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CAAA-D-2013)

Stakeholders: Public safety radio users and manufacturers of P25.

Project Need: Provide updates for an existing standard.

The scope of the project is to revise the existing document to add methods of measurement for receivers that employ class D audio power amplifiers.

BSR/TIA 102.CCAA-B-201x, Project 25, Phase 2 Two-Slot Time Division Multiple Access, Transceiver Measurement Methods (revision and redesignation of ANSI/TIA 102.CCAA-A-2014)

Stakeholders: Public safety radio users and manufacturers of P25.

Project Need: Provide updates for an existing standard.

The project scope is to revise the existing document to correct for an error in the formulas in section 2.2.17.3 of the document, and to add a procedure for testing performance of receivers with class D audio power amplifiers.

BSR/TIA 603-E-201x, Land Mobile FM or PM - Communications Equipment - Measurement and Performance Standards (revision and redesignation of ANSI/TIA 603-D-2010)

Stakeholders: Public safety radio users and manufacturers of P25.

Project Need: Provide updates for an existing standard.

The scope of the project is to revise the existing document to add methods of measurement for receivers employing class D audio power amplifiers.

UL (Underwriters Laboratories, Inc.)

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

Contact: *Ross Wilson*

Fax: (631) 271-6200

E-mail: Ross.Wilson@ul.com

BSR/UL 83A-201x, Standard for Safety for Thermoplastic-Insulated Wires and Cables - High Temperature (new standard)

Stakeholders: Producers, supply chain, AHJ.

Project Need: To obtain national recognition for UL 83A.

UL 83A specifies the requirements for 600 V, single-conductor, high-temperature, thermoplastic-insulated wires and cables in accordance with ANSI/NFPA 70, National Electrical Code (NEC).

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)
- GBI (The Green Building Initiative)
- GEIA (Greenguard Environmental Institute)
- HL7 (Health Level Seven)
- IESNA (The Illuminating Engineering Society of North America)
- 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)
- PRCA (Professional Ropes Course Association)
- RESNET (Residential Energy Services Network)
- 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
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ACCA
Air Conditioning Contractors of America
2800 Shirlington Road
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Web: www.acca.org

ASA (ASC S12)
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ASABE
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Web: www.asabe.org

ASHRAE
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE
Atlanta, GA 30329
Phone: (678) 539-1214
Fax: (678) 539-2214
Web: www.ashrae.org

ASME
American Society of Mechanical Engineers
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New York, NY 10016
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Web: www.asme.org

ASTM
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100 Barr Harbor Drive
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American Welding Society
8669 NW 36 ST., #130
Miami, FL 33166
Phone: (305) 443-9353
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AWWA
American Water Works Association
6666 W. Quincy Ave.
Denver, CO 80235
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Fax: (303) 795-7603
Web: www.awwa.org

BIFMA
Business and Institutional Furniture Manufacturers Association
678 Front Ave. NW
Grand Rapids, MI 49504
Phone: (616) 285-3963
Fax: (616) 285-3765
Web: www.bifma.org

CSA
CSA Group
8501 East Pleasant Valley Rd.
Cleveland, OH 44131
Phone: (216) 524-4990 x88321
Fax: (216) 520-8979
Web: www.csa-america.org

ECIA
Electronic Components Industry Association
2214 Rock Hill Road
Suite 265
Herndon, VA 20170-4212
Phone: (571) 323-0294
Fax: (571) 323-0245
Web: www.ecianow.org

IAPMO (ASSE Chapter)
ASSE International Chapter of IAPMO
18927 Hickory Creek Dr Suite 220
Mokena, IL 60448
Phone: (708) 995-3017
Fax: (708) 479-6139
Web: www.asse-plumbing.org

IKECA
International Kitchen Exhaust Cleaning Association
100 North 20th Street
Suite 400
Philadelphia, PA 19103-1443
Phone: (215) 320-3707
Fax: (215) 963-9785
Web: www.ikeca.org

NASBLA
National Association of State Boating Law Administrators
1648 McGrathiana Parkway
Suite 360
Lexington, KY 40511
Phone: (859) 225-9487
Web: www.nasbla.org

NPES (ASC CGATS)
NPES
1899 Preston White Drive
Reston, VA 20191
Phone: (703) 264-7200
Fax: (703) 620-0994
Web: www.npes.org

NSF
NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105-9723
Phone: (734) 769-5197
Web: www.nsf.org

SAAMI
Sporting Arms and Ammunition Manufacturers Institute
11 Mile High Road
Newtown, CT 06470-2359
Phone: (203) 426-4358 ext. 221
Fax: (203) 426-3592
Web: www.saami.org

SCTE
Society of Cable Telecommunications Engineers
140 Philips Road
Exton, PA 19341-1318
Phone: (480) 252-2330
Fax: (610) 363-5898
Web: www.scte.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

TAPPI
Technical Association of the Pulp and Paper Industry
15 Technology Parkway South
Peachtree Corners, GA 30092
Phone: (770) 209-7277
Fax: (770) 446-6947
Web: www.tappi.org

TIA
Telecommunications Industry Association
1320 North Courthouse Road
Suite 200
Arlington, VA 22201
Phone: (703) 907-7743
Web: www.tiaonline.org

TPI
Truss Plate Institute
218 North Lee Street
Suite 312
Alexandria, VA 22314
Phone: (703) 683-1010
Fax: (866) 445-3497
Web: www.tpinst.org

UL
Underwriters Laboratories, Inc.
12 Laboratory Drive
Research Triangle Park, NC 27709
-3995
Phone: (919) 549-1511
Fax: (631) 271-6200
Web: www.ul.com

VITA
VMEbus International Trade Association (VITA)
929 W. Portobello Avenue
Mesa, AZ 85210
Phone: (613) 799-5745
Web: www.vita.com

WMMA (ASC O1)
Wood Machinery Manufacturers of America
9 Newport Drive
Suite 200
Forest Hill, MD 21050
Phone: (443) 640-1052
Fax: (443) 640-1031
Web: www.wmma.org

ISO & IEC Draft International Standards

This section lists proposed standards that the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) are considering for approval. The proposals have received substantial support within the technical committees or subcommittees that developed them and are now being circulated to ISO and IEC members for comment and vote. Standards Action readers interested in reviewing and commenting on these documents should order copies from ANSI.

Comments

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org); those regarding IEC documents should be sent to Charles T. Zegers, General Secretary of the USNC (czegers@ansi.org). The final date for offering comments is listed after each draft.

Ordering Instructions

ISO and IEC Drafts can be made available by contacting ANSI's Customer Service department. Please e-mail your request for an ISO or IEC Draft to Customer Service at sales@ansi.org. When making your request, please provide the date of the Standards Action issue in which the draft document you are requesting appears.

ISO Standards

COSMETICS (TC 217)

ISO/DIS 16128-2, Guidelines on technical definitions and criteria for natural & organic cosmetic ingredients and products - Part 2: Criteria for ingredients and products - 9/29/2015, $62.00

ERGONOMICS (TC 159)

ISO/DIS 10075-1, Ergonomic principles related to mental work-load - Part 1: General concepts, terms and definitions - 11/30/2015, $53.00

FACILITIES MANAGEMENT (TC 267)

ISO/DIS 18480-1, Facility management - Part 1: Terms and definitions - 11/27/2015, $67.00

ISO/DIS 18480-2, Facilities Management - Part 2: Guidance on strategic sourcing and the development of agreements - 11/27/2015, $134.00

MECHANICAL VIBRATION AND SHOCK (TC 108)

ISO/DIS 2041, Mechanical vibration, shock and condition monitoring - Vocabulary - 11/30/2015, $134.00

PERSONAL SAFETY - PROTECTIVE CLOTHING AND EQUIPMENT (TC 94)

ISO/DIS 17493, Clothing and equipment for protection against heat - Test method for convective heat resistance using a hot air circulating oven - 11/30/2015, $62.00

PETROLEUM PRODUCTS AND LUBRICANTS (TC 28)

ISO/DIS 29945, Refrigerated non-petroleum-based liquefied gaseous fuels - Dimethylether (DME) - Method of manual sampling onshore terminals - 11/30/2015, $62.00

ISO/DIS 13357-2, Petroleum products - Determination of the filterability of lubricating oils - Part 2: Procedure for dry oils - 11/30/2015, $62.00

PHOTOGRAPHY (TC 42)

ISO/DIS 12234-3, Electronic still-picture imaging - Removable memory - Part 3: Design rule for camera file system (DCF) - 11/3/2014, $102.00

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

ISO/DIS 21307, Plastics pipes and fittings - Butt fusion jointing procedures for polyethylene (PE) pipes and fittings used in the construction of gas and water distribution systems - 11/30/2015, $77.00

REFRIGERATION (TC 86)

ISO/DIS 5151, Non-ducted air-cooled air conditioners and air-to-air heat pumps - Testing and rating for performance - 11/8/2004, $146.00

ISO/DIS 13253, Ducted air-conditioners and air-to-air heat pumps - Testing and rating for performance - 11/8/2004, $155.00

ISO/DIS 15042, Multiple split-system air-conditioners and air-to-air heat pumps - Testing and rating for performance - 11/8/2004, $155.00

WATER QUALITY (TC 147)

ISO/DIS 11731, Water quality - Enumeration of Legionella - 11/30/2015, $102.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 23008-8/DAmd1, Information technology - High efficiency coding and media delivery in heterogeneous environments - Part 8: Conformance Specification for HEVC - Amendment 1: Conformance testing for Multiview Main and 3D Main Profiles of HEVC - 9/26/2015, $62.00

IEC Standards

1/2284/CDV, IEC 60050-692: International electrotechnical vocabulary - Generation, transmission and distribution of energy - Dependability and quality of service, 11/27/2015

2/1800/CD, IEC 60034-4 Ed.4: Rotating electrical machines - Part 4: Methods for determining synchronous machine quantities from tests, 11/27/2015

3D/254/DC, IEC Common Data Dictionary (IEC CDD): C00051 Additional units, 10/16/2015

11/236/NP, IEC 6XXXX/Ed1: The insulation piercing connector for the rated voltage up to 10kV, 11/27/2015

13/1647/DTS, IEC/TS 62056-6-9, Electricity Metering Data Exchange - Part 6-9: Mapping between the Common Information Model message profiles (IEC 61968-9) and vDLMS/COSEM (IEC 62056) data models and protocols, 11/27/2015

15/764/CD, IEC 60893-4/A1/TR/Ed2: Insulating materials - Industrial rigid laminated sheets based on thermosetting resins for electrical purposes - Part 4: Typical values, 11/27/2015

23J/394/CDV, IEC 61058-2-6 Ed.1: Switches for appliances - Part 2-6: Particular requirements for switches used in electric motor-operated hand-held tools, transportable tools and lawn and garden machinery, 11/27/2015

26/580/CD, IEC 62822-3 Ed.1: Electric welding equipment - Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 Hz) - Part 3: Resistance welding equipment, 11/27/2015

29/886/FDIS, IEC 61669: Electroacoustics - Measurement of real-ear acoustical performance characteristics of hearing aids, 10/23/2015

32B/641/CDV, IEC 60269-2/A1/Ed5: Low-voltage fuses - Part 2: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) - Examples of standardized systems of fuses A to K, 11/27/2015

32B/642/CDV, IEC 60269-4/A2/Ed5: Low-voltage fuses- Part 4: Supplementary requirements for fuse-links for the protection of semiconductor devices, 11/27/2015

34A/1866/CD, IEC 60810 A1 Ed.4: Lamps for road vehicles - Performance requirements, 10/23/2015

44/740/CD, ISO/IEC 17305 Ed1: Safety of machinery - Design of safety functions realized by control systems, 11/27/2015

45A/1026/CDV, IEC 62855 Ed.1: Nuclear power plants - Electrical systems - Electrical power system analysis, 11/27/2015

49/1167/NP, Sensor devices using piezoelectric acoustic waves and vibrations - Part 1: Generic specifications, 11/27/2015

49/1168/NP, Sensor devices using piezoelectric acoustic waves and vibrations - Part 2: Chemical sensors, 11/27/2015

59L/116/CDV, IEC 60311 A3 Ed.4: Electric irons for household or similar use - Methods for measuring performance, 11/27/2015

59L/117/CD, IEC 62836 Ed.1: Method of measuring performances of electric hair clippers or trimmers for household use, 10/23/2015

62A/1039/CD, IEC TR 80001-2-9: Application of risk management for IT networks incorporating medical devices - Part 2-9: Application guidance - Guidance for use of security assurance cases to demonstrate confidence in IEC/TR 80001-2-2 security capabilities, 10/23/2015

62D/1276/CD, ISO 80601-2-55: Medical Electrical Equipment - Part 2 -55: Particular requirements for the basic safety and essential performance of respiratory gas monitors, 11/27/2015

64/2029/CDV, Amendment 1 to IEC 60364-4-41: Low voltage electrical installation - Part 4-41: Protection for safety - Protection against electric shock, 11/27/2015

65E/474/NP, IEC 62541-12 OPC Unified Architecture Specification: Part 12 - Discovery, 11/27/2015

69/382/CD, IEC/TS 61980-2 /Ed.1: Electric Vehicle Wireless Power Transfer (WPT) Systems - Part 2: Specific requirements for communication between electric road vehicle (EV) and infrastructure with respect to wireless power transfer (WPT) systems, 10/23/2015

69/383/CD, IEC/TS 61980-3 /Ed.1: Electric Vehicle Wireless Power Transfer (WPT) Systems - Part 3: Specific requirements for the magnetic field wireless power transfer systems, 10/23/2015

72/1011/FDIS, IEC 60730-2-8-A2/Ed2: Automatic electrical controls for household and similar use - Part 2-8: Particular requirements for electrically operated water valves, including mechanical requirements, 10/23/2015

76/534/CD, IEC TR 62471-4: Photobiological Safety of Lamps and Lamp Systems: Measuring Methods, 10/23/2015

76/537/CD, ISO 11553-1: Safety of machinery - Laser processing machines - Part 1: General safety requirements, 10/23/2015

76/538/CD, ISO 11553-2: Safety of machinery - Laser processing machines - Part 2: Safety requirements for hand-held laser processing devices, 10/23/2015

82/985/CDV, IEC 62925 Ed.1: Thermal cycling test for CPV modules to differentiate increased thermal fatigue durability, 11/27/2015

86B/3942/FDIS, IEC 61753-382-2/Ed1: Fibre optic interconnecting devices and passive components - Performance standard - Part 382 -2: Non-connectorized single-mode bidirectional G-PON-NGA WWDM devices for category C - Controlled environment, 10/23/2015

91/1292/DC, Proposed withdrawal of IEC 61189-5-601, 5-602, 5-603, 10/09/2015

100/2554/CD, IEC 62919 Ed.1. Stress Free Content Management - Monitoring and management of personal digital content (TA 8), 11/27/2015

110/693/CD, IEC 62715-6-2 Ed.1: Flexible display devices - Part 6-2: Environmental testing methods, 10/23/2015

111/391/DTR, IEC TR 62824 Guidance on Consideration on Material Efficiency of Electrical and Electronic Products in Enevironmentally Conscious Design, 10/23/2015

116/246/FDIS, IEC 62841-2-11/Ed1: Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-11: Particular requirements for hand-held reciprocating saws (jig and sabre saws), 10/23/2015

116/249A/NP, IEC 62841-2-21/Ed1: Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-21: Particular requirements for hand-held drain cleaners, 11/27/2015

122/17/NP, UHV AC transmission systems - System design, 11/27/2015

122/18/NP, UHV AC transmission systems - Substation and Transmission Line Design, 11/27/2015

122/19/NP, UHV AC transmission systems - Commissioning, 11/27/2015

CIS/A/1127/CD, Amendment 2 to CISPR 16-4-2: Specification for radio disturbance and immunity measuring apparatus and methods - Part 4-2: Uncertainties, statistics and limit modelling - Measurement instrumentation uncertainty, 11/27/2015

CIS/A/1128/CD, Amendment 1 to CISPR 16-2-1: Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements, 11/27/2015

CIS/A/1129/CD, Amendment 1 to CISPR 16-1-2: Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-2: Radio disturbance and immunity measureing apparatus - Coupling devices for conductged disturbance measurements, 11/27/2015

3C/2122/FDIS, IEC 60417-6292, Cold environment, 10/30/2015

13/1647A/DTS, IEC/TS 62056-6-9, Electricity Metering Data Exchange - Part 6-9: Mapping between the Common Information Model message profiles (IEC 61968-9) and vDLMS/COSEM (IEC 62056) data models and protocols, 11/27/2015

13/1648/FDIS, IEC 62056-5-3 Ed. 2.0, Electricity Metering Data Exchange - The DLMS/COSEM Suite - Part 5-3: DLMS/COSEM application layer, 10/30/2015

13/1649/FDIS, IEC 62056-6-1 Ed. 2.0, Electricity Metering Data Exchange - The DLMS/COSEM Suite - Part 6-1: Object identification system (OBIS), 10/30/2015

13/1651/FDIS, IEC 62056-6-2 Ed. 2.0, Electricity Metering Data Exchange - The DLMS/COSEM Suite - Part 6-2: COSEM interface classes, 10/30/2015

15/766/CD, IEC 60370/Ed2: Test procedure for thermal endurance of insulating resins and varnishes for impregnation purposes - Electric breakdown methods, 12/04/2015

18A/387/CDV, IEC 60092-353: Electrical installations in ships - Part 353: Power cables for rated voltages 1 kV and 3 kV, 12/04/2015

23A/786/FDIS, IEC 61914 Ed.2: Cable cleats for electrical installations, 10/30/2015

26/580A/CD, IEC 62822-3 Ed.1: Electric welding equipment - Assessment of restrictions related to human exposure to electromagnetic fields (0 Hz to 300 Hz) - Part 3: Resistance welding equipment, 10/23/2015

37B/140/CD, IEC 61643-331/Ed2: Components for low-voltage surge protective devices - Part 331: Performance requirements and test methods for metal oxide varistors (MOV), 12/04/2015

42/338/FDIS, IEC 60270/A1/Ed3: High-voltage test techniques - Partial discharge measurements, 10/30/2015

44/740A/CD, ISO/IEC 17305 Ed1: Safety of machinery - Design of safety functions realized by control systems, 12/25/2015

44/741/FDIS, IEC 62046: Safety of machinery - Application of protective equipment to detect the presence of persons, 10/30/2015

46A/1270/FDIS, IEC 61196-1-116: Coaxial Communication Cables - Part 1-116: Electrical test methods - Test for impedance with time domain reflectometry (TDR), 10/30/2015

46A/1271/FDIS, IEC 61196-4-1: Coaxial Communication Cables - Part 9-1: Blank detail specification for flexible RF coaxial cables, 10/30/2015

46F/322/CDV, IEC 61169-11 ed 1.0: Part 11: Sectional specification for RF coaxial connectors with inner diameter of outer conductor 9.5 mm with threaded coupling - characteristic impedance 50 Ohms (Type 4.1-9.5), 12/04/2015

47E/522/CD, Amendment 2 to IEC 60747-16-3 Ed.1: Semiconductor devices - Part 16-3: Microwave integrated circuits - Frequency converters, 10/30/2015

47E/524/CD, Amendment 2 to IEC 60747-16-4 Ed.1: Semiconductor devices - Part 16-4: Microwave integrated circuits - Switches, 10/30/2015

48B/2451/FDIS, IEC 60603-7-81/Ed1: Connectors for electronic equipment - Part 7-81: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 2000 MHz, 10/30/2015

48B/2452/FDIS, IEC 61076-4-116-A1/Ed1: Connectors for electronic equipment - Product requirements - Part 4-116: Printed board connectors - Detail specification for a high-speed two-part connector with integrated shielding function, 10/30/2015

48D/598/FDIS, IEC 60297-3-109/Ed1: Mechanical structures for electrical and electronic equipment - Dimensions of mechanical structures of the 482,6 mm (19 in) series - Part 3-109: Dimensions of chassis for embedded computing devices, 10/30/2015

61/5000/FDIS, IEC 60335-2-8-A1/Ed6:Household and similar electrical appliances - Safety - Part 2-8: Particular requirements for shavers, hair clippers and similar appliances, 10/30/2015

61B/537/FDIS, IEC 60335-2-25-A2/Ed6: Household and similar electrical appliances - Safety - Part 2-25: Particular requirements for microwave ovens, including combination microwave ovens, 10/30/2015

65B/1010/CDV, IEC 61207-2 Ed. 2.0: Expression of Performance of Gas Analyzers - Part 2: Oxygen in Gas (utilizing high-temperature electrochemical sensors), 12/04/2015

65C/821/FDIS, IEC 62601 Ed 2.0: Industrial networks - Wireless communication network and communication profiles - WIA-PA, 10/30/2015

69/382A/CD, IEC/TS 61980-2 /Ed.1: Electric Vehicle Wireless Power Transfer (WPT) Systems - Part 2: Specific requirements for communication between electric road vehicle (EV) and infrastructure with respect to wireless power transfer (WPT) systems, 12/25/2015

69/383A/CD, IEC/TS 61980-3 /Ed.1: Electric Vehicle Wireless Power Transfer (WPT) Systems - Part 3: Specific requirements for the magnetic field wireless power transfer systems, 11/27/2015

76/539/CD, IEC TR 60825-5: Safety of laser products - Part 5: Manufacturer's checklist for IEC 60825-1, 10/30/2015

77/487/CDV, IEC 61000-6-1: Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity standard for residential, commercial and light-industrial environments, 12/04/2015

77/488/CDV, IEC 61000-6-2: Electromagnetic compatibility (EMC) - Part 6-2: Generic standards - Immunity standard for industrial environments, 12/04/2015

87/582/CD, IEC 61391: Ultrasonics - Pulse-echo scanners - Part 1: Techniques for calibrating spatial measurement systems and measurement of point-spread function response, 12/04/2015

91/1273/CDV, IEC 61189-5-1 Ed.1: Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 5-1: General test methods for materials and assemblies - Guidance for printed board assemblies, 12/04/2015

91/1297/NP, Future IEC 62878-1: Device embedded substrate - Generic specification, 12/04/2015

100/2555/FDIS, IEC 60728-5 Ed 3.0: Cable networks for television signals, sound signals and interactive services - Part 5: Headend equipment, 10/30/2015

104/660/CD, IEC 60068-3-5 Ed.2: Environmental testing - Part 3-5: Supporting documentation and guidance - Confirmation of the performance of temperature chambers, 12/04/2015

105/548/CD, IEC TS 62282-7-1 Ed.2: Fuel cell technologies - Part 7-1: Single cell test methods for polymer electrolyte fuel cell (PEFC), 10/30/2015

110/694/NP, Future IEC 62906-5-4: Laser display devices: Part 5-4: Optical measuring methods of colour speckle - statistical modeling method using monochromatic speckle contrast, 12/04/2015

111/383A/NP, Definition of Low Halogen Materials used in Electronic and Electrical Products, 10/02/2015

Newly Published ISO & IEC Standards

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

ISO Standards

AGRICULTURAL FOOD PRODUCTS (TC 34)

ISO 17604:2015, Microbiology of the food chain - Carcass sampling for microbiological analysis, $123.00

CORROSION OF METALS AND ALLOYS (TC 156)

ISO 8044:2015, Corrosion of metals and alloys - Basic terms and definitions, $51.00

CYCLES (TC 149)

ISO 4210-2:2015, Cycles - Safety requirements for bicycles - Part 2: Requirements for city and trekking, young adult, mountain and racing bicycles, $173.00

ISO 4210-6:2015, Cycles - Safety requirements for bicycles - Part 6: Frame and fork test methods, $149.00

DIMENSIONAL AND GEOMETRICAL PRODUCT SPECIFICATIONS AND VERIFICATION (TC 213)

ISO 14253-5:2015, Geometrical product specifications (GPS) - Inspection by measurement of workpieces and measuring equipment - Part 5: Uncertainty in verification testing of indicating measuring instruments, $123.00

GRAPHIC TECHNOLOGY (TC 130)

ISO/PAS 15339-1:2015, Graphic technology - Printing from digital data across multiple technologies - Part 1: Principles, $123.00

ISO/PAS 15339-2:2015, Graphic technology - Printing from digital data across multiple technologies - Part 2: Characterized reference printing conditions, CRPC1-CRPC7, $88.00

NON-DESTRUCTIVE TESTING (TC 135)

ISO 9934-1:2015, Non-destructive testing - Magnetic particle testing - Part 1: General principles, $123.00

ISO 9934-2:2015, Non-destructive testing - Magnetic particle testing - Part 2: Detection media, $149.00

ISO 9934-3:2015, Non-destructive testing - Magnetic particle testing - Part 3: Equipment, $88.00

OTHER

ISO 3379:2015, Leather - Determination of distension and strength of surface (Ball burst method), $51.00

ISO 3380:2015, Leather - Physical and mechanical tests - Determination of shrinkage temperature up to 100°C, $51.00

ISO 17235:2015, Leather - Physical and mechanical tests - Determination of softness, $51.00

ISO 19074:2015, Leather - Physical and mechanical tests - Determination of water absorption by capillary action (wicking), $51.00

PHOTOGRAPHY (TC 42)

ISO 18383:2015, Photography - Digital cameras - Specification guideline, $240.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO 789-3:2015, Agricultural tractors - Test procedures - Part 3: Turning and clearance diameters, $88.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 23003-1/Amd1/Cor3:2015, Information technology - MPEG audio technologies - Part 1: MPEG Surround - Conformance testing - Corrigendum, FREE

ISO/IEC 28360:2015, Information technology - Office equipment - Determination of chemical emission rates from electronic equipment, $200.00

ISO/IEC 19763-6:2015, Information technology - Metamodel framework for interoperability (MFI) - Part 6: Registry Summary, $149.00

ISO/IEC 15938-13:2015, Information technology - Multimedia content description interface - Part 13: Compact descriptors for visual search, $265.00

ISO/IEC/IEEE 8802-11/Amd4:2015, Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications - Amendment 4, $265.00

ISO/IEC/IEEE 8802-11/Amd5:2015, Information technology - Telecommunications and information exchange between systems - Local and metropolitan area networks - Specific requirements - Part 11: Wireless LAN medium access control (MAC) and physical layer (PHY) specifications - Amendment 5, $265.00

IEC Standards

ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES (TC 31)

IEC 60079-7 Ed. 5.0 b:2015, Explosive atmospheres - Part 7: Equipment protection by increased safety "e", $375.00

ELECTRICAL INSTALLATIONS OF SHIPS AND OF MOBILE AND FIXED OFFSHORE UNITS (TC 18)

IEC 60533 Ed. 3.0 en:2015, Electrical and electronic installations in ships - Electromagnetic compatibility (EMC) - Ships with a metallic hull, $303.00

ELECTROSTATICS (TC 101)

IEC 61340-2-1 Ed. 2.0 b:2015, Electrostatics - Part 2-1: Measurement methods - Ability of materials and products to dissipate static electric charge, $182.00

FIBRE OPTICS (TC 86)

IEC 61977 Ed. 3.0 b:2015, Fibre optic interconnecting devices and passive components - Fibre optic filters - Generic specification, $206.00

INSTRUMENT TRANSFORMERS (TC 38)

IEC 61869-5 Ed. 1.0 b cor.1:2015, Corrigendum 1 - Instrument transformers - Part 5: Additional requirements for capacitor voltage transformers, $0.00

SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES (TC 61)

IEC 60335-2-90 Ed. 4.0 en:2015, Household and similar electrical appliances - Safety - Part 2-90: Particular requirements for commercial microwave ovens, $303.00

SECONDARY CELLS AND BATTERIES (TC 21)

IEC 61427-2 Ed. 1.0 b:2015, Secondary cells and batteries for renewable energy storage - General requirements and methods of test - Part 2: On-grid applications, $303.00

SWITCHGEAR AND CONTROLGEAR AND THEIR ASSEMBLIES FOR LOW VOLTAGE (TC 121)

IEC 62683 Ed. 2.0 b:2015, Low-voltage switchgear and controlgear - Product data and properties for information exchange, $375.00

IEC Technical Reports

SEMICONDUCTOR DEVICES (TC 47)

IEC/TR 61967-1-1 Ed. 2.0 en:2015, Integrated circuits - Measurement of electromagnetic emissions - Part 1-1: General conditions and definitions - Near-field scan data exchange format, $339.00

IEC Technical Specifications

ELECTRICAL ACCESSORIES (TC 23)

IEC/TS 62735-1 Ed. 1.0 en:2015, Direct current (DC) plugs and socket-outlets for information and communication technology (ICT) equipment installed in data centres and telecom central offices - Part 1: Plug and socket-outlet system for 2,6 kW, $387.00

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

The INCITS Executive Board serves as the consensus body with 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 has eleven membership categories that can be viewed at http://www.incits.org/participation/membership-info. Membership in all categories is always welcome. INCITS also seeks to broaden its membership base and looks to recruit new participants in the following under-represented membership categories:

- **Producer – Hardware**

  This category primarily produces hardware products for the ITC marketplace.

- **Producer – Software**

  This category primarily produces software products for the ITC marketplace.

- **Distributor**

  This category is for distributors, resellers or retailers of conformant products in the ITC industry.

- **User**

  This category includes entities that primarily reply on standards in the use of a products/service, as opposed to producing or distributing conformant products/services.

- **Consultants**

  This category is for organizations whose principal activity is in providing consulting services to other organizations.

- **Standards Development Organizations and Consortia**

  o "Minor" an SDO or Consortia that (a) holds no TAG assignments; or (b) holds no SC TAG assignments, but does hold one or more Work Group (WG) or other subsidiary TAG assignments.

- **Academic Institution**

  This category is for organizations that include educational institutions, higher education schools or research programs.

- **Other**

  This category includes all organizations who do not meet the criteria defined in one of the other interest categories.

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.

ANSI Accredited Standards Developers

Application for Accreditation

American Academy of Forensic Sciences (AAFS)

Comment Deadline: October 5, 2015

The American Academy of Forensic Sciences (AAFS), a new ANSI organizational member in 2015, has submitted an application for accreditation as an ANSI Accredited Standards Developer (ASD) and proposed operating procedures for documenting AAFS-sponsored American National Standards. AAFS' proposed scope of standards activity is as follows:

> The American Academy of Forensic Sciences is a not-for-profit organization that provides leadership to advance science and its application to the legal system. The objectives of the Academy are to promote professionalism, integrity, competency, education, foster research, improve practice, and encourage collaboration in the forensic sciences. Standards developed by the Academy's Standards Board address specific standardization needs of the national and international forensic communities that augment standards promulgated through existing accredited Standards Developing Organizations.

To obtain a copy of AAFS' application and proposed operating procedures or to offer comments, please contact: Ms. Kim Wrasse, Executive Assistant and Continuing Education Coordinator, American Academy of Forensic Sciences, 410 North 21st Street, Colorado Springs, CO 80904; phone: 719.636.1100; e-mail: KWrasse@aafs.org. Please submit any comments to AAFS by October 5, 2015, with a copy to the ExSC Recording Secretary 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 AAFS' proposed operating procedures from ANSI Online during the public review period at the following URL: www.ansi.org/accredPR.

Approval of Accreditation as an ANSI ASD

SERI – Sustainable Electronics Recycling International

ANSI's Executive Standards Council has approved SERI – Sustainable Electronics Recycling International, a new ANSI Organizational Member in 2015, as an ANSI Accredited Standards Developer (ASD) under its proposed operating procedures for documenting consensus on SERI-sponsored American National Standards, effective September 1, 2015. For additional information, please contact: Ms. Sharada Rao, Director of Quality, SERI – Sustainable Electronics Recycling International, P.O. Box 19611, Boulder, CO 19611; phone: 248.891.2837; e-mail: sharada@sustainableelectronics.org.

Reaccreditation

The ASSE Chapter of IAPMO

Comment Deadline: October 5, 2015

The ASSE Chapter of IAPMO, an ANSI organizational member and Accredited Standards Developer, has submitted to ANSI revisions to its currently accredited operating procedures for documenting consensus on ASSE-sponsored American National Standards, under which it was originally accredited in July 2013. As the revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copy of the revised procedures or to offer comments, please contact: Mr. Conrad Jahrling, Staff Engineering Supervisor, ASSE International, 18927 Hickory Creek Drive, Suite 220, Mokena, IL 60448; phone: 708.995.3017; e-mail: conrad.jahrling@asse-plumbing.org. You may view/download a copy of the revisions during the public review period at the following URL: www.ansi.org/accredPR. Please submit any public comments on the revised procedures to the ASSE Chapter of IAPMO by October 5, 2015, with a copy to the ExSC Recording Secretary in ANSI's New York Office (jthompso@ANSI.org).

ANSI Accreditation Program for Third Party Product Certification Agencies

Voluntary withdrawal from ANSI Accreditation – CanadaGAP

Comment Deadline: October 5, 2015

Ms. Liliana Niculae
Vice-President, Business Excellence Americas
SAI Global Certification Services Pty Ltd
20 Carlson Court, Suite 100
Toronto, Ontario M9W 7K6, Canada
Phone: 416-401-8700
Toll Free: 800-465-3717
Fax: 416-401-8650
E-mail: Liliana.Niculae@qmi-saiglobal.com
Web: www.sai-global.com

On August 30, 2015, SAI Global Certification Services Pty Ltd voluntarily withdrew from ANSI Accreditation for the following scope:

CanadaGAP

Please send your comments by October 5, 2015 to Reinaldo Balbino Figueiredo, Senior Program Director, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293-9287 or e-mail: rfigueir@ansi.org, or Nikki Jackson, Senior Program Manager, Product Certifier Accreditation, American National Standards Institute, 1899 L Street, NW, 11th Floor, Washington, DC 20036, Fax: 202-293-9287 or e-mail: njackson@ansi.org.

Meeting Notice

AHRI Meeting

Development of AHRI Standard 1410, Commercial Finned-tube Radiation Testing and Rating Standard

The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) will be holding an online meeting on September 11 from 10:30 a.m. to 11:30 a.m. If you are interested in participating in the meeting or providing comments on the standard, please contact AHRI staff member Aykut Yilmaz at ayilmaz@ahrinet.org.

Information Concerning

International Organization for Standardization (ISO)

Call for Participation for U.S. TAG to ISO/PC 252

Seeking Technical Experts to Develop International Standards for Natural Gas Fueling Stations for Vehicles

ISO/PC 252 develops international standards that apply to the design, construction and operation of stations for fueling CNG/LNG to vehicles; including equipment, safety devices and maintenance.

The American National Standards Institute (ANSI) is the United States member body to ISO for PC 252.

Technical Advisory Groups **(TAGs)** are committees accredited by ANSI and provide the mechanism for participation in the international technical activities of ISO. CSA Group has been appointed by ANSI to administer the US TAG for the technical committee on *Natural gas fueling stations for vehicles* (ISO/PC 252), and is responsible for ensuring compliance with TAG procedures.

U.S. TAG Participation Benefits:

- Promote influence and adoption of U.S.-based technology globally;
- Initiate and approve U.S. proposals for new work items (e.g., ideas for new standards) and working drafts for submission by the American National Standards Institute (ANSI) for consideration by the technical committee;
- Influence the development and coordination of U.S. interests to be presented to ISO;
- Influence the US position on International Organization for Standardization (ISO) draft International Standards, draft technical reports, committee drafts, new work item proposals, ISO questionnaires, and draft reports of meetings;
- Provide adequate US representation to technical committee and working group meetings, designate the head of delegation and members of delegations, and ensure compliance with the ANSI Guide for US Delegates to meetings;
- Influence US position on agenda items for technical committee meetings and advise the US delegation; and
- Nominate or participate as a US technical expert to serve on the technical committee's working groups.

If you have the technical background in any of the areas noted above and are interested in being a part of the standards development committee(s) working on these projects, please contact Julie Cairns at julie.cairns@csagroup.org.

11 AUGUST 2015 CONSOLIDATE RED-LINE EDITS TO THE ACCA 14 QMREF (QUALITY MAINTENANCE OF COMMERCIAL REFRIGERATION SYSTEMS) STANDARD DRAFT

Changes made to the standard draft following the second ANSI Public Review (15 May – 29 June 2015) have been consolidated into this document, which shows underline for additions and strikethrough for deletions. Only those red-line changes contained in the following table are open for public review.

Comments are to be e-mailed to standards-sec@acca.org on the ACCA Public Response Form found at www.acca.org/ansi; the subject line is to indicate "QMref Public Comment from {your last name}"; attach the completed form to the email.

<table>
<tr><th>SYSTEM CHECKLIST</th><th>RED-LINE EDITS</th></tr>
<tr><td>5.3 SERVICE CASE</td><td>(Items shown in generic table format, not in final order).
<table>
<tr><th>Inspection Task</th><th>Recommended Corrective Actions</th><th>Frequency</th></tr>
<tr><td>Check for OEM minimum rated feet per minute (fpm) airflow at the air discharge.</td><td>Inform owner/location manager when airflow is lower than OEM minimum requirement.</td><td>Quarterly</td></tr>
<tr><td>Check that the fixture is properly plumbed and level.</td><td>Inform the owner when the service case is not level and/or condensate drainage is not sloped properly.</td><td>Annually</td></tr>
<tr><td>Check automatic door closure for proper operation.</td><td>Repair or replace as necessary.</td><td>Quarterly</td></tr>
<tr><td>Check for ice build-up at TXV area, U-bends, or in seams of display case.</td><td>Remove build-up, and use food grade sealant for leaks.</td><td>Quarterly</td></tr>
</table></td></tr>
<tr><td>5.4 FOOD PREP TABLES</td><td>(New table note).
• During the course of the regular maintenance inspection, the technician should notify the owner if they see an installation issue that could compromise food safety or equipment performance. These issues may include: equipment placed in direct sunlight, ambient air temperatures exceeding OEM thresholds, heat from other appliances affecting the condenser, impingement of minimum air inlet clearance for the condenser because equipment is placed too close to the wall.</td></tr>
<tr><td>5.5 FROZEN CARBONATED BEVERAGE MACHINES</td><td>(New table note).
• The International Energy Conservation Code stipulates minimum insulation wall thickness for this type of equipment in order to prevent water and mold accumulation. The technician should notify the owner if newly-installed equipment does not comply with the requirements of the locally enforced code.</td></tr>
<tr><td>5.9 PARALLEL RACK DIRECTION EXPANSION</td><td>(Items shown in generic table format, not in final order).
<table>
<tr><th>Inspection Task</th><th>Recommended Corrective Actions</th><th>Frequency</th></tr>
</table></td></tr>
</table>

	Check crank case heaters for proper operation.	Notify the designated individual if the crank case heaters do not turn off when the compressor is on or the oil temperature is at OEM specifications.	Quarterly
	Verify oil system is operating as designed by checking oil separator float for improper seating and blow by, checking for excessive oil levels in off cycle compressors, and checking suction accumulators for improper oil return through plugged oil ports located in the internal piped riser of the accumulator.	Clean and repair the system as necessary.	Quarterly
	Check oil system return gas check valves.	Replace if the return rate does not meet OEM specifications.	Quarterly
	Check oil failure system deactivation control.	Notify the designated individual if the oil system safety switches are not operating properly.	Quarterly
	Check phase monitor settings, and record the supply voltages.	Notify the designated individual if the setting has been changed between inspections.	Semi-Annually
	Check the integrity of the fan blades; note blades that do not match OEM blades.	Replace as necessary. Notify the designated individual if non-OEM blades have been found.	Quarterly
	Check condenser control section for evidence of water infiltration.	If water infiltration is found, replace seals as necessary and notify the designated individual.	Quarterly
	Notes: 1. If, during the course of regular maintenance, the technician notices that the transducers are mounted incorrectly (horizontally), they should notify the owner of this incorrect installation. 2. During the course of regular maintenance inspection, the technician may notice unusual vibrations, which may be transmitted through the system piping. This type of vibration may be the result of improperly design/balanced piping systems, discharge restrictor plates that have been removed, or failed mufflers; the vibration can result in brazed joints being compromised. The technician should report these vibrations to the owner.		
5.14 WALK-IN	(New table note). • During the course of regular maintenance inspection, the technician may notice that the outdoor condenser was not installed at the proper, minimum height above grade (or roof, as applicable) with regard to local building code requirements. The technician should report this installation fault to the owner.		

BSR/ASHRAE Addendum e
to ANSI/ASHRAE Standard 62.1-2013

Public Review Draft

Proposed Addendum e to Standard 62.1-2013, Ventilation for Acceptable Indoor Air Quality

Third Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE 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 proposed addendum modifies Section 8, Operation and Maintenance, incorporating calibration requirements for airflow monitoring sensors and systems. The requirements in the proposed Table 8.4.1 (Minimum Maintenance Activity and Frequency) were initially based on requirements in ASHRAE/ACCA Standard 180-2012, Standard Practice for Inspection and Maintenance of Commercial-Building HVAC Systems, although the SSPC has modified some of those requirements.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum e to 62.1-2013

Modify Section 8 as shown below.

8.1 General

8.1.1 Application. The requirements of this section apply to buildings and their ventilation systems and their components constructed or renovated after the adoption date of this section.

8.1.2 Building Alterations or Change-of-Use. When buildings are altered or when changes in building use, occupant category, significant change in occupant density, other changes inconsistent with system design assumptions are made, the ventilation ~~Ventilation~~ system design, operation, and maintenance shall be reevaluated and the O&M manual updated as necessary. ~~when changes in building use or occupancy category, significant building alterations, significant changes in occupant density, or other changes inconsistent with system design assumptions are made.~~

8.2 Operations and Maintenance Manual. An Operations and Maintenance (O&M) Manual, either written or electronic, shall be developed and maintained on site or in a centrally accessible location for the working life of the applicable ventilation system equipment or components. This manual shall be updated as necessary. The manual shall include the O&M procedures, ventilation system operating schedules and any changes made thereto, final design drawings, maintenance schedules based on manufacturer's instructions ~~and any changes made thereto~~, and the maintenance requirements and frequencies provided in Table 8.4.1 ~~detailed in Section 8.4~~.

8.3 Ventilation System Operation. Mechanical and natural ventilation systems shall be operated in a manner consistent with the O&M Manual. Systems shall be operated such that spaces are ventilated in accordance with Section 6 when they are expected to be occupied.

8.4 Ventilation System Maintenance ~~8.4.1 Ventilation System Components~~. The building ventilation system components shall be maintained in accordance with the O&M Manual. ~~or as required by this section and summarized in Table 8.4.1.~~

8.4.1.1 Filters and Air-Cleaning Devices. All filters and air-cleaning devices shall be replaced or maintained as specified by the O&M manual.

8.4.1.2 Outdoor Air Dampers. At a minimum of once every three months or as specified in the O&M manual, the outdoor air dampers and actuators shall be visually inspected or remotely monitored to verify that they are functioning in accordance with the O&M manual.

8.4.1.3 Humidifiers. Humidifiers shall be cleaned and maintained to limit fouling and microbial growth. Any automatic chemical-dosing equipment shall be calibrated and maintained in accordance with the O&M manual to maintain additive concentrations to comply with Section 5.12.1. These systems shall be inspected at a minimum of once every three months of operation and/or treated in accordance with the O&M manual.

8.4.1.4 Dehumidification Coils. All dehumidifying cooling coils shall be visually inspected for cleanliness and microbial growth regularly when it is likely that dehumidification occurs, but no less than once per year or as specified in the O&M manual, and shall be cleaned when fouling or microbial growth is observed.

8.4.1.5 Drain Pans. Drain pans shall be visually inspected for cleanliness and microbial growth at a minimum of once per year during the cooling season, or as specified in the O&M manual, and shall be cleaned if needed. Areas adjacent to drain pans that were subjected to wetting shall be investigated, cleaned if necessary, and the cause of unintended wetting rectified.

8.4.1.6 Outdoor Air Intake Louvers. Outdoor air intake louvers, bird screens, mist eliminators, and adjacent areas shall be visually inspected for cleanliness and integrity at a minimum of once every six months, or as specified in the O&M manual, and cleaned as needed. When visible debris or visible biological material is observed, it shall be removed. Physical damage to louvers, screens, or mist eliminators shall be repaired if such damage impairs their function in preventing contaminant entry.

8.4.1.7 Sensors. Sensors whose primary function is dynamic minimum outdoor air control, such as flow stations at an air handler and those used for demand control ventilation, shall have their accuracy verified as specified in the O&M Manual. This activity shall occur at a minimum of once every six months or periodically in accordance with the O&M Manual. A sensor failing to meet the accuracy specified in the O&M Manual shall be recalibrated or replaced.

8.4.1.8 Outdoor Airflow Verification. The total quantity of outdoor air to air handlers, except for units under 2000 cfm (1000 L/s) of supply air, shall be measured in minimum outdoor air mode once every five years. If measured minimum airflow rates are less than the design minimum rate (±10% balancing tolerance) documented in the O&M manual, they shall be adjusted or modified to bring them to the minimum design rate or evaluated to determine if the measured rates are in compliance with this standard.

8.4.1.9 Cooling Towers. Cooling tower water systems shall be treated to limit the growth of microbiological contaminants including *legionella sp.* in accordance with O & M Manual or the water treatment program.

8.4.1.10 Equipment/Component Accessibility. The space provided for routine maintenance and inspection around ventilation equipment shall be kept clear.

8.4.1.11 Floor Drains. Floor drains located in air plenums or rooms that serve as plenums shall be maintained to prevent transport of contaminants from the floor drain to the plenum.

8.4.2 Microbial Contamination. Visible microbial contamination shall be investigated and rectified.

8.4.3 Water Intrusion. Water intrusion or accumulation in ventilation system components such as ducts, plenums, and air handlers shall be investigated and rectified.

Modify Table 8.4.1 as shown below.

TABLE 8.4.1
Minimum Maintenance Activity and Frequency for
Ventilation System Equipment and Associated Components

Inspection/Maintenance Task	Frequency*
a Investigate system for water intrusion or accumulation. Rectify as necessary.	As necessary
b Verify that the space provided for routine maintenance and inspection of open cooling tower water systems, closed cooling tower water systems and evaporative condensers is unobstructed.	Monthly
c Open cooling tower water systems, closed cooling tower water systems and evaporative condensers shall be treated to limit the growth of microbiological contaminants including *legionella sp.*	Monthly
d Verify that the space provided for routine maintenance and inspection of equipment and components is unobstructed.	Quarterly
e Check pressure drop and scheduled replacement date of filters and air-cleaning devices. Clean or replace as necessary to ensure proper operation.	Quarterly
f Check ultraviolet lamp. Clean or replace as needed to ensure proper operation.	Quarterly
g Visually inspect dehumidification and humidification devices. Clean and maintain to limit fouling and microbial growth. Measure relative humidity and adjust system controls as necessary.	Quarterly
h Maintain floor drains and trap primer located in air plenums or rooms that serve as air plenums to prevent transport of contaminants from the floor drain to the plenum.	Semiannually
i Check ventilation and indoor air quality related control systems and devices for proper operation. Clean, lubricate, repair, adjust, or replace as needed to ensure proper operation.	Semiannually
j Check P-traps in floor drains located in plenums or rooms that serve as air plenums. Prime as needed to ensure proper operation.	Semiannually
k Check fan belt tension. Check for belt wear and replace if necessary to ensure proper operation. Check sheaves for evidence of improper alignment or evidence of wear and correct as needed.	Semiannually
l Check variable-frequency drive for proper operation. Correct as needed.	Semiannually
m Check for proper operation of cooling or heating coil for damage or evidence of leaks. Clean, restore, or replace as required.	Semiannually
n Visually inspect outdoor air intake louvers, bird screens, mist eliminators, and adjacent areas for cleanliness and integrity; clean as needed; remove all visible debris or visible biological material observed, repair physical damage to louvers, screens, or mist eliminators if such damage impairs the item from providing the required outdoor air entry.	Semiannually
o Visually inspect natural ventilation openings and adjacent areas for cleanliness and integrity; clean as needed; remove all visible debris or visible biological material observed, repair physical damage to louvers, and screens, if such damage impairs the item from providing the required outdoor air entry. Manual and/or automatic opening apparatus shall be physically tested for proper operation and repaired or replaced as necessary.	Semiannually
p Verify the operation of the outdoor air ventilation system and any dynamic minimum outdoor air controls.	Annually
q Check air filter fit and housing seal integrity. Correct as needed.	Annually
r Check control box for dirt, debris and/or loose terminations. Clean and tighten as needed.	Annually
s Check motor contactor for pitting or other signs of damage. Repair or replace as needed.	Annually
t Check fan blades and fan housing. Clean, repair, or replace as needed to ensure proper operation.	Annually
u Check integrity of all panels on equipment. Replace fasteners as needed to ensure proper integrity and fit/finish of equipment.	Annually
v Assess field serviceable bearings. Lubricate if necessary.	Annually
w Check drain pans, drain lines, and coils for biological growth. Check adjacent areas for evidence of unintended wetting. Repair and clean as needed.	Annually
x Check for evidence of buildup or fouling on heat exchange surfaces. Restore as needed to ensure proper operation.	Annually
y Inspect unit for evidence of moisture carryover from cooling coils beyond the drain pan. Make corrections or repairs as necessary.	Annually
z Check for proper damper operation. Clean, lubricate, repair, replace, or adjust as needed to ensure proper operation.	Annually
aa Visually inspect areas of moisture accumulation for biological growth. If present, clean or disinfect as needed	Annually
ab Check condensate pump. Clean or replace as needed.	Annually
ae Visually inspect exposed ductwork and external piping for insulation and vapor barrier for integrity. Correct as needed.	Annually
af Verify the accuracy of permanently mounted sensors whose primary function is outdoor air delivery monitoring, outdoor air delivery verification or dynamic minimum outdoor air control, such as flow stations at an air handler and those used for demand control ventilation. A sensor failing to meet the accuracy specified in the O&M Manual shall	5 years

be recalibrated or replaced. Performance verification shall include output comparison to a measurement reference standard consistent with those specified for similar devices in ASHRAE 41.2 or ASHRAE 111.	
ag Verify the total quantity of outdoor air delivered by air handlers set to minimum outdoor air mode. If measured minimum airflow rates are less than the design minimum rate documented in the O&M Manual, ± a 10 % balancing tolerance; (1) confirm the measured rate does not conform with the provisions of this standard and; (2) adjust or modify the air-handler components to correct the airflow deficiency. Ventilation systems shall be balanced in accordance with ASHRAE Standard 111[16], or equivalent, at least to the extent necessary to verify conformance with the total outdoor airflow and space supply airflow requirements of this standard. Exception: Units under 2000 cfm (1000 L/s) of supply air are exempt from this requirement.	5 years

*~~a.~~ Minimum frequencies may be increased or decreased if indicated in the O&M manual
** National Institute of Standards and Technology, U.S. Department of Commerce, Gaithersburg, MD.

~~Item~~	~~Activity Code~~	~~Minimum Frequency *~~
~~Filters and air-cleaning devices~~	~~A~~	~~Every three months or as specified in the O & M Manual~~
~~Outdoor air dampers and actuators~~	~~B~~	~~Every 12 months or as specified in the O & M Manual~~
~~Humidifiers~~	~~C~~	~~Every 12 months or as specified in the O & M Manual~~
~~Dehumidification coils~~	~~D~~	~~Regularly when it is likely that dehumidification occurs but no less than once per year or as specified in the O & M Manual~~
~~Drain pans and other adjacent surfaces subject to wetting~~	~~D~~	~~Every 12 months during cooling season or as specified in the O & M Manual~~
~~Outdoor air intake louvers, bird screens, mist eliminators, and adjacent areas~~	~~E~~	~~Every six months or as specified in the O & M Manual~~
~~Sensors used for dynamic minimum outdoor air control~~	~~F~~	~~Every six months or periodically in accordance with O & M Manual~~
~~Air-handling systems except for units under 2,000 cfm (1000 L/s)~~	~~G~~	~~Once every five years~~
~~Cooling towers~~	~~H~~	~~Every one month for open systems, every three months for closed systems, or in accordance with O & M Manual or treatment system provider~~
~~Floor drains located in plenums or rooms that serve as air plenums~~	~~I~~	~~Periodically according to O & M Manual~~
~~Equipment/component accessibility~~	~~J~~	
~~Visible microbial contamination~~	~~K~~	
~~Water intrusion or accumulation~~	~~K~~	

~~ACTIVITY CODE:~~

~~A Maintain according to O & M Manual.~~
~~B Visually inspect or remotely monitor for proper function.~~
~~C Clean and maintain to limit fouling and microbial growth.~~
~~D Visually inspect for cleanliness and microbial growth and clean when fouling is observed.~~
~~E Visually inspect for cleanliness and integrity and clean when necessary.~~
~~F Verify accuracy and recalibrate or replace as necessary.~~
~~G Measure minimum quantity of outdoor air. If measured minimum air flow rates are less than 90% of the minimum outdoor air rate in the O & M Manual, they shall be adjusted or modified to bring them above 90% or shall be evaluated to determine if the measured rates are in conformance with this standard.~~
~~H Treat to limit the growth of microbiological contaminants.~~
~~I Maintain to prevent transport of contaminants from the floor drain to the plenum.~~
~~J Keep clear the space provided for routine maintenance and inspection around ventilation equipment.~~
~~K Investigate and rectify.~~

BSR/ASHRAE Addendum f
to ANSI/ASHRAE Standard 62.1-2013

Public Review Draft

Proposed Addendum f to Standard 62.1-2013, Ventilation for Acceptable Indoor Air Quality

First Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

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

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

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FOREWORD

In preparation for publication of Standard 62.1-2016, this proposed addendum updates the normative references included in the Standard. This process includes reviewing the references to ensure that their content has not been changed such that they should no longer be referenced and that they are written in normative language. References that are not in normative language are being moved to a new Informative Bibliography. In some cases, the language of the Standard where these documents are referenced need to be modified. In particular, changes to the notes to Table 5.5.1 are made for avoid referencing non-normative documents and to improve the normative language used.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum f to 62.1-2013

Modify the notes to TABLE 5.5.1 Air Intake Minimum Separation Distance as shown below. The remainder of Table 5.5.1 in unchanged.

Note 1: This requirement applies to the distance from the outdoor air intakes for one ventilation system to the exhaust outlets and ~~/~~ relief outlets for any other ventilation system.

Note 2: Minimum distance listed does not apply to laboratory fume hood exhaust air outlets. Separation criteria for fume hood exhaust shall be in compliance with ~~NFPA45[5] and~~ ANSI/AIHA Z9.5.[6]
Informative Appendix XX contains sources of additional ~~I~~information on separation criteria ~~for industrial environments can be found in the~~. These include the *ACGIH Industrial Ventilation Manual*~~[7]~~[XX1], ~~and the~~ *ASHRAE Handbook—HVAC Applications*~~[8]~~[XX2], *ASHRAE Laboratory Design Guide*[XX3], and NSF/ANSI 49[XX4].

Note 3: ~~Shorter separation distances shall be permitted when determined in accordance with (a)~~ The minimum distances relative to fuel-fired appliances shall be as required by ANSI Z223.1/NFPA-54[9] for fuel gas burning appliances and equipment, ~~(b)~~ NFPA 31[10] for oil burning appliances and equipment, and ~~or (c)~~ NFPA 211[11] for other combustion appliances and equipment.

Note 4: Distance measured to closest place that vehicle exhaust is likely to be located.

Note 5: ~~Shorter~~ The minimum separation distance shall not apply ~~be permitted~~ where outdoor surfaces below the air intake are sloped more than 45 degrees from horizontal or where such surfaces ~~that~~ are less than 1 in. (30 mm) in width ~~wide~~.

Note 6: Where snow accumulation is expected, the surface of the snow at the expected average snow depth shall be considered to be a ~~constitutes the "other~~ surface directly below an intake.~~"~~

Modify the note in Section 5.5.2 as shown below. The remainder of Section 5.5.2 in unchanged.

Informative Note: This performance corresponds to Class A (99% effectiveness) when rated according to AMCA 511~~[14]~~[XX5] and tested per AMCA 500-L.~~[13]~~[XX6]

Modify Informative Appendix F, Section F1.1, as follows:

F1.1 Application

Exhaust outlets and outdoor air intakes or other openings shall be separated in accordance with the following.

Exception: Laboratory fume hood exhaust air outlets shall be in compliance with ~~NFPA 45-2004 and~~ ANSI/AIHA Z9.5[6] ~~-2003~~.

Modify Section 9 REFERENCES as shown below. Renumber the references here and in the body of the Standard as appropriate.

9. REFERENCES

[1]*National Primary and Secondary Ambient Air Quality Standards*, Code of Federal Regulations, Title 40 Part 50 (40 CFR 50)~~, as amended July 30, 2004 and Oct. 17, 2006~~. U.S. Environmental Protection Agency. www.epa.gov/ air/criteria.html, accessed June ~~20, 2008~~ 27, 2015.

[2]*ANSI/SMACNA 016-2012, HVAC Air Duct Leakage Test Manual,* ~~First~~ Second Edition, ~~1985~~2012. Sheet Metal and Air Conditioning Contractors' Association, Inc. (SMACNA), Chantilly, VA.

[3]*UL 181, Factory-Made Air Ducts and Air Connectors*, 11th~~10th~~ Edition, ~~2005~~2013. Underwriters' Laboratories~~, Inc.~~, Northbrook, IL.

[4]*ASTM C1338-~~00~~14, Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings*. American Society for Testing and Materials, West Conshohocken, PA.

~~[5]*NFPA 45-2004, Standard on Fire Protection for Laboratories Using Chemicals.* National Fire Protection Association, Quincy, MA.~~

[6]*ANSI/AIHA Z9.5-~~2003~~2013, Standard for Laboratory Ventilation.* American Industrial Hygiene Association, Fairfax, VA.

~~[7]*Industrial Ventilation: A Manual of Recommended Practice*, 28th Edition, 2012. American Conference of Governmental Industrial Hygienists (ACGIH), Committee on Industrial Ventilation, Lansing, MI.~~

~~[8]*2007ASHRAE Handbook - Heating, Ventilating, and Air- Conditioning Applications.* American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA.~~

[9]*ANSI Z223.1/NFPA-54-~~2006~~2015, National Fuel Gas Code*. National Fire Protection Association, Quincy, MA.

[10]*NFPA-31-~~2006~~2011, Standard for the Installation of Oil-Burning Equipment*. National Fire Protection Association, Quincy, MA.

[11]*NFPA-211-~~2006~~2013, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances*. National Fire Protection Association, Quincy, MA.

[12]*UL 1995, Heating and Cooling Equipment,* ~~3rd~~4th Edition, ~~2005~~2011. Underwriters Laboratories~~, Inc.~~, Northbrook, IL.

[13]*AMCA 500-L-~~07~~12, Laboratory Methods of Testing Louvers for Rating.* Air Movement and Control Association International, Inc. Arlington Heights, IL.

~~[14]*AMCA 511-07, Certified Ratings Program – Product Rating Manual for Air Control Devices.* Air Movement and Control Association International, Inc. Arlington Heights, IL.~~

[15]*ANSI/ASHRAE Standard 52.2-~~2007~~2012, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.* American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA.

[16]*ASHRAE Standard 111-~~1988~~2008, ~~Practices for~~ Measurement, Testing, Adjusting, and Balancing of Building, ~~Heating, Ventilation, Air-Conditioning and Refrigeration~~ HVAC Systems.* American Society of Heating, Refrigerating and Air- Conditioning Engineers, Inc., Atlanta, GA.

[17]*ANSI/ASHRAE 129-1997 (RA 02), Measuring Air Change Effectiveness.* American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Atlanta, GA.

[18]*ANSI/SMACNA 006-2006 HVAC Duct Construction Standards— Metal and Flexible,* 3rd Edition, 2005. Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA), Chantilly, VA.

[19]*Fibrous Glass Duct Construction Standards,* 7th Edition, 2003. Sheet Metal and Air Conditioning Contractors' National Association, Inc. (SMACNA), Chantilly, VA.

[20]*NFPA-90A-~~2002~~2012, Standard for the Installation of Air-Conditioning and Ventilating Systems.* National Fire Protection Association, Quincy, MA.

[21]*NFPA-90B-~~2006~~2012, Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.* National Fire Protection Association, Quincy, MA.

[22]NSF/ANSI 60-~~2012~~2013, *Drinking Water Treatment Chemicals— Health Effects.* NSF International, Ann Arbor, MI.

[23]*Secondary Direct Food Additives Permitted In Food For Human Consumption.* Code of Federal Regulations, Title 21 Part 173.310 (21 CFR 173.310), *Boiler Water Additives*. U.S. Food and Drug Administration, 2012.

Create a new Informative Appendix XX (Bibliography) as follows:

(This appendix 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.)

INFORMATIVE APPENDIX XX
INFORMATIVE BIBILOGRAPHY

[XX1]*Industrial Ventilation: A Manual of Recommended Practice*, 28th Edition, 2012. American Conference of Governmental Industrial Hygienists (ACGIH), Committee on Industrial Ventilation, Lansing, MI.

[XX2]*2015 ASHRAE Handbook—Heating, Ventilating, and Air- Conditioning Applications.* ASHRAE, Atlanta, GA.

[XX3]2013 *ASHRAE Laboratory Design Guide*, ASHRAE, Atlanta, GA.

[XX4]*NSF/ANSI 49-2012, Biological Safety Cabinetry: Design, Construction, Performance and Field Certification*, National Sanitation Foundation International, Ann Arbor, MI.

[XX5]*AMCA 511-13, Certified Ratings Program—Product Rating Manual for Air Control Devices*. Air Movement and Control Association International, Inc. Arlington Heights, IL.

[XX6]*AMCA 500-L-12, Laboratory Methods of Testing Louvers for Rating.* Air Movement and Control Association International, Inc. Arlington Heights, IL.

BSR/ASHRAE Addendum g
to ANSI/ASHRAE Standard 62.1-2013

Public Review Draft

Proposed Addendum g to Standard 62.1-2013, Ventilation for Acceptable Indoor Air Quality

First Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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

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FOREWORD

This proposed addendum is from a change proposal submitted from outside the SSPC. The proposer pointed out that the addendum provided an exception which essentially allows coils which are very difficult to clean as long as "instructions for . . . cleaning" are provided. The SSPC agrees that providing instructions does not make cleaning these coils any more feasible, and therefore the exception should be deleted.

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Addendum g to 62.1-2013

Revise Section 5.11.2 as shown below.

5.11.2 Finned-Tube Coil Selection for Cleaning. Individual finned-tube coils, or multiple finned-tube coils in series without intervening access space(s) of at least 18 in. (457 mm), shall be selected to result in no more than 0.75 in. wc (187 Pa) combined dry-coil pressure drop at 500 fpm (2.54 m/s) face velocity.

~~**Exception:** When access for cleaning of both upstream and downstream coil surfaces is provided as well as clear and complete instructions for access and cleaning of both upstream and downstream coil surfaces are provided~~

BSR/ASHRAE Addendum k
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum k to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

Second Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

The purpose of this proposed addendum is to create a compliance path within the standard based on the use of recirculated air that has been filtered to reduce exposure in the interior of the building to particulate matter of not exceeding 2.5 microns. Research has shown that reduction of such particles ($PM_{2.5}$) would result in air quality that is equal or better in quality than provided by the current version of this standard.

This proposed addendum allows for a reduction in the required amount of whole-building ventilation needed to show compliance with the standard when the filtration requirements in the addenda are satisfied. This reduction in whole- building ventilation is in the form of a 'credit' associated with filtration of what would otherwise be exhausted air that can be used to reduce the amount of whole building ventilation that otherwise would be required by Section 4.1 of the standard.

The filtration requirements consist of a combination of filter efficiency and flow of recirculated air though that filter and are augmented with additional requirements associated with air distribution and the installation and maintenance of the ventilation system.

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Addendum k to 62.2-2013

Add a new Section 4.1.4 as shown below.

4.1.4 Ventilation-rate Reduction for Particle Filtration. This section describes the requirements necessary to apply a credit against the minimum total ventilation rate of this standard. This credit applies during any period in which the requirements of Sections 4.1.4.1, 4.1.4.2 and 4.1.4.3 are met. For those times,

$$Q_{filtration,credit} = 0.2 \cdot Q_{tot}$$

Where Q_{tot} is total ventilation rate of section 4.1.1 as modified by section 4.1.3 and any required additional airflow of section A3; and $Q_{filtration,credit}$ is the credit for filtration which shall be used to reduce Q_{tot} in section 4.1 for that period.

4.1.4.1 Air Distribution System. The filtered air shall be supplied to or returned from all rooms in the habitable space through an air handling system. Systems that combine filtration air distribution and HVAC distribution, such as an air handling system that supplies air from (or returns air to) the filter from every bedroom and living area, comply with this requirement, but are not required.

4.1.4.2 Particle Filtration. Recirculated air shall be passed through a filter with a maximum filtration factor of 4.3, as determined in accordance with Section 4.1.4.2.1. Outdoor and recirculated air is also subject to the requirements of Section 6.7, which may require additional filtration depending on the system design.

4.1.4.2.1 Filtration Factor. The filtration factor of an air filter, f_{fr}, shall be determined using one of the following methods:

1. Filters tested to ASHRAE 52.2[10]: Identify the filtration factor from the row in Table 4.3 associated with the MERV designation.
2. Filters tested to AHRI 680[11]: Identify the filtration factor from the row in Table 4.4 for which the measured E1 and E2 are no less than the values listed in the row.
3. Filters with an alternative method providing PM2.5 efficiency as approved by the authority having jurisdiction: Identify the filtration factor from the row in Table 4.5 for which the PM2.5 efficiency is no less than the value listed in the row.

4.1.4.3 Air Flow Rate. The minimum air flow rate passing through the filter is given by the following equation:

$$Q_{fr} = f_{fr} Q_{tot}$$

Where Q_{fr} is the time-averaged flow rate of filtered, recirculated air delivered by the air handling system. The period of time for averaging the flow shall not exceed one day. If the period exceeds 12 hours, controls shall be provided to insure that the system also provides at least 10% of Q_{fr} in every 12-hour period.

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

TABLE 4.3: Filtration Factor for Filters Tested to ASHRAE 52.2[10]

MERV	f_{fr}
11	4.3
12	3.0
13	2.1
14	1.8
15	1.7
16	1.6

TABLE 4.4: Filtration Factor for Filters Tested to AHRI 680[11]

E1	E2	f_{fr}
0	65	4.3
0	80	3.0
25	85	2.1
75	90	1.8
85	90	1.7

95	95	1.6

TABLE 4.5: Filtration Factor for Filters with a PM2.5 efficiency designation

$PM_{2.5}$ efficiency	f_{fr}
35%	4.3
50%	3.0
70%	2.1
85%	1.8
90%	1.7
95%	1.6

Revise Reference 10 in Section 10 as shown below.

10. REFERENCES

10. ANSI/ASHRAE Standard 52.2-~~2007~~2012 including the 2015 Supplement, *Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size.* ASHRAE, Atlanta, GA.

BSR/ASHRAE Addendum o
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum o to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

First Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

The committee approved a proposal to change references to "whole-building" or "whole-house" ventilation to "dwelling unit" ventilation in the main body of the standard. This proposed changed will ensure that the same nomenclature is used in Normative Appendix A (Existing Buildings), for consistency.

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Addendum o to 62.2-2013

Revise Normative Appendix A as shown below. The remainder of Normative Appendix A is unchanged. Note: Refer to published Addendum 62.2b for changes to Section A2. Published addenda are available for free download from the ASHRAE website at https://www.ashrae.org/standards-research--technology/standards-addenda.

**NORMATIVE APPENDIX A –
EXISTING BUILDINGS**

[…]

A2. ~~WHOLE-BUILDING~~ DWELLING UNIT MECHANICAL VENTILATION RATE

The required mechanical ventilation rate, Q_{fan}, shall be the rate Q_{tot} in Section 4.1.1 plus the required additional airflow calculated in accordance with Section A3. If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.2. In these cases, Section A3 shall be applied before Section 4.1.2 when determining the final mechanical ventilation rate. For existing buildings, if Q_{fan} is less than or equal to 15 cfm (7 L/s), then ~~whole-building~~ dwelling unit mechanical ventilation is not required.

A3. LOCAL EXHAUST

When replacing equipment, and for any kitchens and bathrooms being renovated, all Section 5 requirements shall be met. For other existing kitchens and bathrooms, when the existing equipment does not meet those requirements, this section may be used to compensate for insufficient exhaust airflow for each room requiring local exhaust by adjusting the ~~whole-building~~ dwelling unit mechanical ventilation rate in Section A2.

[…]

A3.3 Required Additional Airflow. The total airflow deficit is the sum of all the final airflow deficits from all bathrooms and kitchens. The required additional ~~whole-building~~ dwelling unit mechanical ventilation airflow is equal to one-quarter of the total airflow deficit.

A4. AIR-MOVING EQUIPMENT

[…]

A4.2 Airflow Rating

A4.2.1 Existing fans intended for use as ~~whole-building~~ dwelling unit mechanical ventilation must be measured consistent with the requirements of Section 4.3.

A4.2.2 Existing fans intended for local exhaust only shall be measured consistent with the requirements of Section 5.4.

Exception: If the fan flow rate cannot be measured and fan airflow ratings at 0.25 in. w.c. (62.5 Pa) are not available, but fan airflow ratings are available for 0.1 in. w.c. (25 Pa) and the duct sizing requirements of Table 5.3 can be verified, those ratings may be used, provided they are reduced by 25%.

BSR/ASHRAE Addendum p
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum p to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

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FOREWORD

The intent of Section 7.2.2 (Demand-Controlled Local Exhaust Fans) is to require fans to have at least one speed setting meeting the minimum required exhaust airflow rate where the corresponding sone rating is 3 or less. This proposed change would clarify this intent. Currently, the language in this section would permit any fan with a high speed setting exceeding 400 cfm to be exempt from the sone requirement, even if operating on a lower speed setting. For example, a kitchen range hood with speed settings of 100, 200, and 401 cfm is currently not required to meet the sone requirements at any of these settings. Closing this loop hole will ensure that occupants that have typical sized range hoods (i.e., those with at least one speed setting ≤ 400 cfm) will have at least one speed setting rated ≤ 3 sone.

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Addendum p to 62.2-2013

Revise Section 7.2 as shown below.

7.2 Sound Ratings for Fans. Ventilation fans shall be rated for sound at no less than the minimum airflow rate required by this standard, as noted below. These sound ratings shall be at a minimum of 0.1 in. w.c. (25 Pa) static pressure in accordance with the HVI procedures referenced in Section 7.1.

Exception:
HVAC air handlers and remote-mounted fans need not meet sound requirements. To be considered for this exception, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways, and there must be at least 4 ft (1 m) of ductwork between the fan and the intake grille.

7.2.1 Whole-Building Ventilation or Continuous Local Exhaust Fans. These fans shall be rated for sound at a maximum of 1.0 sone.

7.2.2 Demand-Controlled Local Exhaust Fans. Bathroom exhaust ~~F~~ffans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sone~~, unless their maximum rated airflow exceeds 400 cfm (200 L/s).~~ Kitchen exhaust fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sone at one or more airflow settings greater than or equal to 100 cfm (50 L/s).

Exception:
Fans with a minimum airflow setting exceeding 400 cfm (200 L/s) need not comply.
~~HVAC air handlers and remote-mounted fans need not meet sound requirements. To be considered for this exception, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways, and there must be at least 4 ft (1 m) of ductwork between the fan and the intake grille.~~

BSR/ASHRAE Addendum q
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum q to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

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FOREWORD

This proposed change adds an alternative combustion safety testing method based on performance in lieu of the prescriptive requirements that were the sole basis previously. ANSI/BPI-1200 is a consensus standard that addresses combustion safety testing.

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Addendum q to 62.2-2013

Revise Section 6.4 as shown below.

6.4 Combustion and Solid-Fuel Burning Appliances.

6.4.1 Combustion and solid-fuel burning appliances must be provided with adequate combustion and ventilation air and vented in accordance with manufacturers' installation instructions; NFPA 54/ANSI Z223.1, *National Fuel Gas Code*[5]; NFPA 31, *Standard for the Installation of Oil-Burning Equipment*[6]; or NFPA 211, *Standard for Chimneys, Fireplaces, Vents, and Solid-Fuel Burning Appliances*,[7] or other equivalent code acceptable to the building official.

6.4.2 Where atmospherically vented combustion appliances or solid-fuel burning appliances are located inside the pressure boundary, the total net exhaust flow of the two largest exhaust fans (not including a summer cooling fan intended to be operated only when windows or other air inlets are open) shall not exceed 15 cfm per 100 ft^2 (75 L/s per 100 m^2) of occupiable space when in operation at full capacity. If the designed total net flow exceeds this limit, the net exhaust flow must be reduced by reducing the exhaust flow or providing compensating outdoor airflow. Atmospherically vented combustion appliances do not include direct-vent appliances. Combustion appliances that pass safety testing performed according to ANSI/BPI-1200, *Standard Practice for Basic Analysis of Buildings*,[XX] shall be deemed as complying with Section 6.4.2.

Add the following new normative reference to Section 10.

XX. ANSI/BPI-1200-S-2015, *Standard Practice for Basic Analysis of Buildings.* Building Performance Institute, Inc., Malta, NY.

BSR/ASHRAE Addendum r
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum r to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

First Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

There is confusion in the industry regarding where ventilation system airflow measurements can be taken. This proposed change would provide guidance on this topic while aligning the language with the latest draft of BSR/RESNET/ICC 380, "Standard for Testing Airtightness of Building Enclosures, Airtightness of Heating and Cooling Air Distribution Systems, and Airflow of Mechanical Ventilation Systems", which is expected to be finalized as an ANSI standard in the short term.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum r to 62.2-2013

Revise Section 4.3 as shown below.

4.3 Airflow Measurement. The airflow required by this section is the quantity of outdoor ventilation air supplied and/or indoor air exhausted by the mechanical ventilation system as installed and shall be measured according to the ventilation equipment manufacturer's instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminal(s)/grille(s), outlet terminal(s)/grille(s), or in the connected ventilation duct(s). Ventilation airflow of systems with multiple operating modes shall be tested in all modes designed to meet this section.

Revise Section 5.4 as shown below.

5.4 Airflow Measurement. The airflow required by this section is the quantity of indoor air exhausted by the ventilation system as installed and shall be measured according to the ventilation equipment manufacturer's instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminal(s), outlet terminal(s), or in the connected ventilation duct(s).

Exception: The airflow rating, according to Section 7.1, at a pressure of 0.25 in. w.c. (62.5 Pa) may be used, provided the duct sizing meets the prescriptive requirements of Table 5.3 or manufacturer's design criteria.

BSR/ASHRAE Addendum s
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum s to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

First Public Review (July 2015)
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FOREWORD

Standard 62.2 has never previously distinguished between balanced and unbalanced ventilation, despite it being well-known that these interact with natural infiltration in different ways to produce different overall air exchange rates. This proposed change provides a mechanism for accounting for the differences between balanced and unbalanced ventilation.

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Addendum s to 62.2-2013

Revise the definition of "balanced system" in Section 3 as shown below.

balanced system: a ventilation system where the total supply fan flow and total exhaust fan flow are within 20% of each other. The balanced system air flow shall be the average of the supply and exhaust flows. ~~one or more fans that supply outdoor air and exhaust building air at substantially equal rates.~~

Revise Section 4.1.2 as shown below. The remainder of Section 4.1.2 is unchanged.

Required Mechanical Ventilation Rate (Q_{fan}).

Required Mechanical Ventilation Rate (Q_{fan}) shall be calculated using Equation 4.6:

$$Q_{fan} = Q_{tot} - \Phi \cdot Q_{inf} \qquad (4.6)$$

where
Q_{fan} = required mechanical ventilation rate, cfm (L/s)
Q_{tot} = total required ventilation rate, cfm (L/s)
Q_{inf} = infiltration, cfm (L/s) ~~may be no greater than $2/3 \cdot Q_{tot}$~~ (see Normative Appendix A for exceptions for existing buildings and Section 8.2.1 for multifamily buildings)
Φ=1 for balanced ventilation systems and Q_{inf}/Q_{tot} otherwise

Exception: A ventilation fan is not required when Q_{fan} is less than 10 cfm (5 L/s).

BSR/ASHRAE Addendum u
to ANSI/ASHRAE Standard 62.2-2013

Public Review Draft

Proposed Addendum u to Standard 62.2-2013, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

First Public Review (July 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposed change adds an alternative method to reduce transfer air in existing buildings. The compartmentalization requirement in the existing standard is extremely difficult and cost-prohibitive to meet for many existing buildings. While this is a desirable target, an alternative for existing buildings to meet the standard with reasonable effort is needed.

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Addendum u to 62.2-2013

Add a new Section A5 to Normative Appendix A as shown below.

A.5. MULTIFAMILY BUILDINGS

A.5.1 Transfer Air. In lieu of Section 8.4.1, an alternate method to reduce transfer air in existing buildings is to install a balanced ventilation system.

BSR/ASHRAE Addendum a
to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum a to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

First Full Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposal revises Section A3, Water System Flow Diagram to allow the Program Team the flexibility to determine what needs to be included in the flow diagram to manage the risk of legionellosis in the building water systems of Health Care Facilities. It also removes the permissive language that was previously in the standard.

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Addendum a to 188-2015

Modify the standard as follows (IP and SI Units)

NORMATIVE APPENDIX A

HEALTH CARE FACILITIES

These requirements are only applicable to health care facilities meeting the qualifications of Section 4.3.2

A3. WATER SYSTEM FLOW DIAGRAM

A3.1 The building water systems shall be graphically represented in water system flow diagrams. ~~that include:.~~ These diagrams shall enable the identification, analysis and management of the risk of *legionellosis* throughout the building water systems. The following is a listing of elements to be considered for inclusion into the flow diagram:

a. All water supply sources
b. All water supply service entrances
c. All water treatment systems and control measures, including disinfection and filtration
d. All water processing steps, including, but not limited to, receiving, conditioning, storing, heating, cooling, recirculating and distributing
e. All areas where hazardous conditions ~~may~~that have the potential to contribute to the potential for *Legionella* amplification, including but not limited to:
    1. All clinical support areas, including dietary and central sterile
    2. All patient care areas, including dialysis, respiratory therapy, and hydrotherapy
    3. All water use end points, including:
        i. Cooling towers
        ii. Open water features
        iii. Spas and whirlpools

iv. Pools
v. Ice machines, and
vi. Humidifiers;

f. Other points determined by the *Designated Team.*

BSR/ASHRAE Addendum b
to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum b to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

First Full Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposal adds the definition of construction documents. It also revises multiple portions of the standard to remove the permissive language and put it in mandatory code enforceable language and removes a reference that is not used in the normative section.

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Addendum b to 188-2015

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

Add new definition:
Construction documents: Drawings and specifications used to construct a building, building systems, or portions thereof.

Revise definitions as shown:

control limit: a maximum value, a minimum value, or a range of values ~~to whichof~~ of a chemical or physical parameter associated with a *control measure* ~~must be~~ that is monitored and maintained in order to reduce the occurrence of a *hazardous condition* ~~to an acceptable level.~~.

hazard: *Legionella* bacteria in a *building water system* that, in the absence of *control*, ~~can cause~~ has the potential to cause harm to humans.

Revise Section 4.2.1 as shown:

4.2 ***Building Owner Requirements***

4.2.1 The building owner shall survey each existing building, new building, and any renovation, addition, or modification to an existing building and its water systems as described in Section 5. The survey and conformance with the compliance requirements of Section 4 ~~must occur~~ shall be completed prior to occupancy of a new building and before construction begins on renovations, additions, or modifications to existing buildings. If the building and associated property has

a. any of the *building water systems* listed in Section 5.1, then all of those *building water systems* shall comply with the requirements of Section 6 and all applicable requirements of Section 7 of this standard.
b. any of the factors listed in Section 5.2, then all potable *building water systems* and all *building water systems* listed in Section 5.1 shall comply with the requirements of Sections 6 and all applicable requirements of Section 7 of this standard.

Modify Section 5.1 as shown:

5. ***BUILDING SURVEY***

5.1 The building shall be surveyed to determine whether the building has one or more of the following:

a. Open and closed-circuit cooling towers or evaporative condensers that provide cooling , ~~and/or~~ refrigeration or both cooling and refrigeration for the *HVAC&R* system or other systems or devices in the building;

b. whirlpools or spas, either in the building or on the site; or

c. ornamental fountains, misters, atomizers, air washes, humidifiers, or other *nonpotable* water systems or devices that release water aerosols in the building or on the site.

Modify Section 6.1.3 as shown:

6.1.3 *Control Limits*. For each *control measure* at each *control location* established in Section 6.1.2, determine the *control limits* including ~~but not limited to~~ a maximum value, a minimum value, or a range of values ~~within which~~ of a chemical or physical parameter ~~must~~ that shall be monitored and maintained in order to reduce *hazardous conditions* ~~to an acceptable level.~~

Modify Section 6.2.1 as shown:

6.2.1 *Program Team*. Identify the persons on the *Program Team* responsible for developing and implementing the *Program* and the *Program Team's* tasks~~. and the tasks for which they are responsible~~. The *Program Team* shall include one or more individuals selected from the following: the building owner or *designee*, employees, suppliers, consultants, or other individual or individuals ~~to whom~~that ~~the~~ the building owner has delegated authority and responsibility for the actions required by the *Program*. The ~~*Program Team* can~~ shall be permitted to delegate *Program* tasks to subgroups. The *Program Team* shall have knowledge of the *building water system* design and water management as ~~it~~ related~~s~~ to *legionellosis* ~~that can be obtained through informative documents, such as ASHRAE Guideline 12, *Minimizing the Risk of Legionellosis Associationed with Building Water Systems*.~~

Informative Note: Knowledge related to *legionellosis* can be obtained through peer reviewed informative documents such as ASHRAE Guideline 12, *Minimizing the Risk of Legionellosis Associated with Building Water Systems*.

Revision Section 6.2.2 as shown:

6.2.2 Describe the *Building Water Systems*. The *Program Team* shall identify and describe the *potable* and *nonpotable water systems* within the building and on the building site, including: ~~(at a minimum)~~

a. the locations of end-point uses of *potable* and *nonpotable water systems*,

b. the location~~s~~ of water processing equipment and components, and

c. how water is received and processed including how water is ~~(~~conditioned, stored, heated, cooled, recirculated, and delivered to end-point uses~~)~~.

Revise Section 6.2.3 as shown:

6.2.3 *Process Flow Diagrams*. The information from Section 6.2.2 ~~must~~ shall be graphically described in step-by-step *process flow diagrams*. The *process flow diagrams* shall have ~~sufficient~~ detail ~~to~~ that enable~~s~~ the identification, analysis, and management of the *risk* of *legionellosis* throughout the *building water systems*. The *Program Team* shall confirm that the *process flow diagrams* are representative of the systems as built.

Revise Section 6.2.4 as shown:

6.2.4 *Analysis of Building Water Systems*. The *Program Team* shall use the *process flow diagrams* in Section 6.2.3 to evaluate where *hazardous conditions* ~~may~~ have the potential to occur in the *building water systems* and determine where *control measures* ~~can be~~ shall be applied to *control* potentially hazardous system conditions. The analysis shall consider ~~also take into consideration~~ the vulnerability of occupants and shall include the *building water systems* identified in Section 5.1. The analysis shall include provisions to respond to water service disruptions.

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 188-2015, *Legionellosis: Risk Management for Building Water Systems* First Public Review Draft

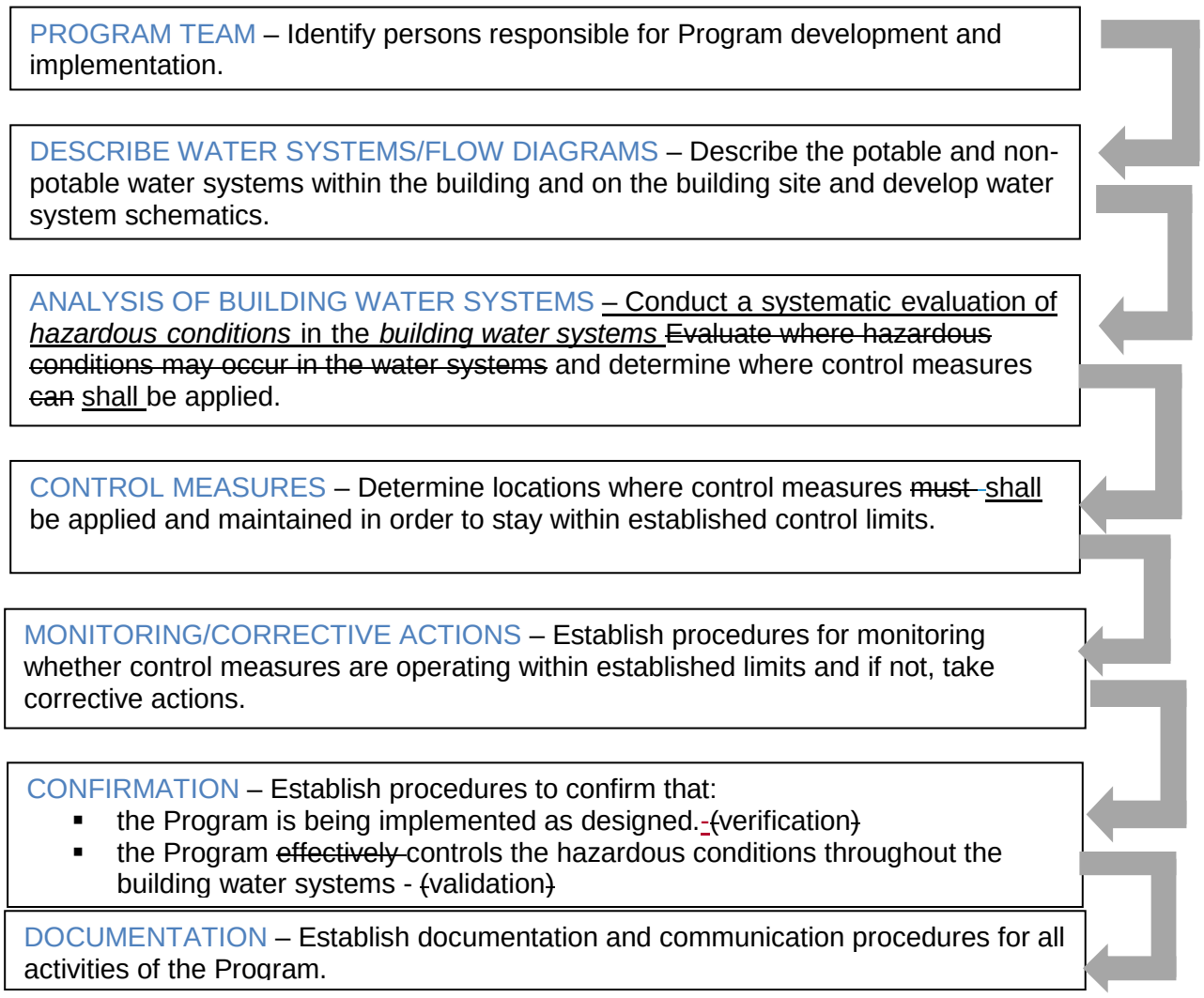
Revision Section 6.2.8 as shown:

6.2.8 *Program* Confirmation. The *Program Team* shall establish procedures to confirm, both initially and on an ongoing basis, that the *Program* is being implemented as designed. The resulting process is ~~(~~*verification*~~)~~. The *Program Team* shall establish procedures to confirm, both initially and on an ongoing basis, that the *Program*, when implemented as designed, ~~effectively~~ controls the *hazardous conditions* throughout the *building water systems*. The resulting process is ~~(~~*validation*~~)~~. The *Program Team* shall determine whether *testing* for *Legionella* shall be performed and if so how test results will be used to *validate* the *Program*. If the *Program Team* determines that *testing* is to be performed, the *testing* approach, including sampling frequency, number of samples, locations, sampling methods, and test methods, shall be specified and documented. The *Program Team* shall ~~include~~ consider ~~consideration of~~ the following as part of the determination of whether to test for *Legionella*:

a. *Program control limits* are not maintained in *building water systems*, including in water systems with supplemental *disinfection*.
b. A health care facility provides in-patient services to *at- risk* or *immunocompromised* populations.
c. A prior history of *legionellosis* is associated with the *building water system*.

Revise Figure 1 as shown:

FIGURE 1: Elements of a Water Management Program



Revise Section 7.1.2 as shown:

7.1.2 System Maintenance. The *Program* documents shall include procedures for

a. inspection of, and inspection schedule for, water-containing vessels and system components;
b. flushing or mixing of stagnant or low-flow areas;
c. maintenance and *monitoring* procedures based on equipment manufacturers' ~~recommendations~~ instructions for cleaning, *disinfection*, replacement of system components, and other treatments that the *Program Team* decides are necessary for the following:
    1. Hot water and cold water storage tanks
    2. Ice machines
    3. Water-hammer arrestors
    4. Expansion tanks
    5. Water filters
    6. Shower heads and hoses
    7. Electronic faucets
    8. Aerators
    9. Faucet flow restrictors
    10. Non-steam aerosol-generating humidifiers
    11. Water heaters
    12. Infrequently used equipment, including eyewash stations and showers

Revise Section 7.1.4 as shown:

7.1.4 Contingency Response Plan. For both hot water and cold water systems, the *Program* documents shall include

a. procedures to be followed if there are known or suspected cases of *legionellosis* associated with the use of *potable* water from the *building water systems;*
b. directives issued by national, regional, and local health department authorities;
c. if the *Program Team* determines testing for *Legionella* shall be performed, the procedures shall include criteria for when and where the tests shall be performed;
d. procedures for emergency *disinfection*; and
e. procedures for other actions ~~identified~~ as ~~necessary~~ determined by the *Program Team* to prevent exposure to contaminated water.

Revision Section 7.2 as shown:

7.1 Cooling Towers and Evaporative Condensers. This section describes the preventive measures required for cooling towers and evaporative condensers that provide cooling, ~~and/or~~ refrigeration or both cooling and refrigeration for the *HVAC&R* system or for other devices or systems in the building. The *Program* documents shall include identification of the responsible persons for every step of each *Program* requirement.

Revise Section 7.3.5.1 as shown:

7.3.5.1 Microbiological Testing. The *Program* documents shall include procedures for

a. a minimum of monthly ~~or more frequent~~ *testing* of spa water for indicator organisms and pathogens identified by the *Program* microbiological standards;
b. maintaining the total heterotrophic aerobic bacteria colony count at or below the maximum level specified by local, regional, and national codes and regulations or ≤200 CFU/mL if ~~no~~ codes or regulations do not apply;
c. maintaining the levels of indicator organisms at or below the standard threshold;
d. when and where tests shall be performed, proper sampling procedures, and the interpretation of test results

~~should~~ when the *Program Team* determines that *testing* for *Legionella* or other pathogens is required;

e. responding to ~~unsatisfactory~~ test results including *disinfection* record review and repetition of microbiological tests.

Revise Section 7.5.1 as shown:

7.5.1 Equipment Siting. Prior to beginning construction for installation of new or replacement aerosol-generating misters, atomizers, air washers, or humidifiers, drawings shall be reviewed and the following items addressed:

a. ~~-~~Potential contamination from sources that can be drawn into the system
b. ~~Inadequate a~~ Access to pumps, filters, and treatment equipment for maintenance and inspection
c. External heat sources and ~~inadequate~~ restricted airflow that increases the temperature and thereby the *risk* of ~~exposure to~~ amplification of *Legionella*

Revise Section 8.1 as shown:

8. REQUIREMENTS FOR DESIGNING BUILDING WATER SYSTEMS

8.1 General. When designing for new construction, renovations, refurbishment, replacement, or repurposing of a facility, the following shall be documented:

a. A system overview and intended mode of system operation

b. ~~Documentation and~~ Ddesign compliance ~~to~~ that addresses *hazardous conditions* for each of the following:
   1. Schematic diagrams of water systems
   2. *Monitoring* and control diagrams of water systems
   3. Local, regional, and national code compliance
   4. Locations of the following points: makeup, flush, sampling, temperature monitoring, and drain
   5. Locations of outdoor air intakes
   6. Building water equipment
   7. Commissioning
   8. Operating instructions and procedures
   9. Maintenance schedules, frequencies, and procedures
   10. No-flow and low-flow portions of the piping and *building water systems*
   11. Impact of heat loss from hot water or heat gain by cold water in piping and water system components
   12. ~~Possible c~~Cross connections between potable and *nonpotable* water
   13. ~~Inadequate~~ Access to water expansion tanks, water hammer arrestors, water storage tanks, water heaters, and other equipment and components ~~containing~~ that contain water.

Revise Section 9 as shown:

9. *REFERENCES*

1. ASME. 2012. ASME/ANSI A112.1.2-2012, *Air Gaps in Plumbing Systems (for Plumbing Fixtures and Water-Connected Receptors)*. New York, New York: The American Society of Mechanical Engineers.
2. AWWA. 2014. AWWA/ANSI C651-14, *Disinfecting Water Mains*. Denver, Colorado: American Water Works Association.
3. AWWA. 2011. AWWA/ANSI C652-11, *Disinfection of Water Storage Facilities*. Denver, Colorado: American Water Works Association.
4. ~~EPA. 1979. Pesticides: Science and Policy. Swimming Pool Water Disinfectants. DIS/TCC-12, U.S. Environmental Protection Agency, Washington, DC. http:// www.epa.gov/oppad001/dis_tss_docs/dis-12.htm.~~

BSR/ASHRAE Addendum c
to ANSI/ASHRAE Standard 15-2013

First Public Review Draft

Proposed Addendum c to Standard 15-2013, Safety Standard for Refrigeration Systems

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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BSR/ASHRAE Addendum c to ANSI/ASHRAE Standard 15-2013, *Safety Standard for Refrigeration Systems*

First Public Review Draft

Addendum c to 15-2013

(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

Addendum C gives requirements for carbon dioxide (CO_2) refrigeration systems and modifies the requirements for machinery rooms. This addendum revises Section 3 with the addition of new definitions and a changed definition. In addition, this addendum eliminates Section 8.12(d) and completely revises Section 9.2.6.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

3. DEFINITIONS

Add new definitions as shown:

Transcritical system: a refrigeration system in which evaporation occurs in the subcritical region and heat rejection can occur at a pressure exceeding the critical pressure of the refrigerant.

Gas cooler: a heat exchanger designed to remove heat from a transcritical system.

Intermediate Pressure Stage: a pressure stage that is sometimes present on carbon dioxide (R-744) *transcritical* systems that operates between the highside and lowside pressure stages, is regulated by a flash gas bypass valve, and includes flash gas tanks and gas coolers, where provided.

Flash gas tank: a tank provided to separate vapor from liquid on the supply side of an evaporator. The feed to a flash gas tank is supercritical gas exiting a gas cooler that has been throttled to its subcritical region.

Flash gas bypass valve: a device that regulates the removal of gas from the flash gas tank for compression.

Revise changed definition as shown:

Highside: ~~those portions of the refrigerating system that are subject to approximate condensing pressure.~~ A portion or stage of a refrigerating system that is subject to condenser or gas cooler pressure.

Revise Section 8.12 (d.) as shown:

~~d. The refrigerating machinery room shall have a door that opens directly to the outdoors or through a vestibule equipped with self-closing, tight-fitting doors.~~

Revise Section 9.2.6 as shown:

~~**9.2.6** When a refrigerating system utilizes carbon dioxide (R-744) as a heat transfer fluid, the minimum design pressure for system components shall comply with the following.~~

~~**9.2.6.1** In a circuit without a compressor, the design pres- sure shall be at least 20% higher than the saturation pressure corresponding to the warmest location in the circuit.~~

~~**9.2.6.2** In a cascade refrigerating system, the highside design pressure shall be at least 20% higher than the maxi- mum pressure developed by a pressure-imposing element, and the lowside pressure shall be at least 20% higher than the saturation pressure corresponding to the warmest location in the circuit~~.

9.2.6 Components of refrigerating systems that utilize carbon dioxide (R-744) as a heat transfer fluid shall comply with the minimum design pressure requirements in Sections 9.2.6.1 through 9.2.6.4. The pressure at maximum operating conditions referenced by Sections 9.2.6.1 through 9.6.2.3 shall be the highest pressure experienced during the following conditions:

(a) Startup,
(b) Full-load operation at the warmest heat rejection design condition, and
(c) Defrost, for systems designed with defrost capability.

9.2.6.1 For circuits without compressor, the design pressure shall be not less than 120% of the circuit pressure at maximum operating conditions.

9.2.6.2 Cascade refrigerating systems shall comply with all of the following:

(a) The high side design pressure shall be not less than 120% of the maximum pressure developed by a pressure-imposing element, and
(b) The lowside design pressure shall be not less than 120% of the pressure at maximum operating conditions, corresponding to the warmest location in the circuit.

9.2.6.3 Transcritical refrigerating systems shall comply with all of the following:

(a) The highside design pressure shall be not less than 110% of the maximum pressure developed by a pressure-imposing element,
(b) The lowside design pressure shall be not less than 120% of the pressure at maximum operating conditions, and
(c) The intermediate pressure stage, where present, shall have a design pressure that is not less than 120% of the pressure at maximum operating conditions.

9.2.6.4 Where the design pressure calculated in Sections 9.2.6.1 through 9.2.6.3 will be exceeded in

the event of refrigerant warming to ambient temperature during normal standstill or emergency standstill conditions, one of the following means shall be provided to maintain pressure at or below the design pressure:

(a) A pressure-relieving connection that will relieve excess pressure to a lower pressure part of the system, or

(b) A pressure-relief valve in accordance with Section 9.7.8.

BSR/ASHRAE Addendum c
to ANSI/ASHRAE Standard 188-2015

Public Review Draft

Proposed Addendum c to Standard 188-2015, Legionellosis: Risk Management for Building Water Systems

First Full Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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

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FOREWORD

This revises portions of Appendix A that applies to Health Care Facilities. The intent of these revisions is to remove permissive language and change it to mandatory code enforceable language. Section A5.1 was changed to make the language clearer as to when the Designated Team needs to reevaluate the legionellosis risk management plan.

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Addendum c to 188-2015

Modify the standard as follows (IP and SI Units)

NORMATIVE APPENDIX A

HEALTH CARE FACILITIES

These requirements are only applicable to health care facilities meeting the qualifications of Section 4.3.2

A4. RISK MANAGEMENT PLAN

A4.1 The *legionellosis risk management plan* must be contained within one or more documents. These documents are allowed to contain information that is not part of the *legionellosis risk management plan*, and a master document providing the location of all plan documents shall be maintained. The *legionellosis risk management plan* at a minimum shall include~~, without being limited to~~:

a. the name, title, and contact information for the *Designated Team* leader and the role and contact information for other *Designated Team* members;
b. the *water system flow diagrams*;
c. the systematic evaluation of physical and chemical conditions associated with each step in the *water system flow diagrams* to determine where *hazardous conditions* ~~can~~ have the potential for occurring ~~occur~~ in the *building water systems* and where *control measures* ~~may~~ shall be applied;
d. identification of areas with higher probability of infection throughout the facility based on the intended use of water-based processes and the relative vulnerability of patients to *legionellosis* in areas designated for specialized care;
e. an evaluation of the results of Sections A4.1(c) and A4.1(d) to estimate the likelihood of *legionellosis*;
f. the procedures required for prevention and *control* of *legionellosis* associated with the health care facility's *building water systems*, including
    i. identification of the *control locations*,
    ii. determination of the *control limits*,
    iii. development of *monitoring* procedures, and

iv. determination of *corrective actions*;

g. assignment of responsibility for each action required by the *legionellosis risk management plan*;

documentation of all aspects of the *legionellosis risk management plan*, including development, implementation, *verification*, and *validation*;

A5. EXISTING BUILDINGS, NEW CONSTRUCTION, AND RENOVATIONS

A5.1 Existing Buildings. The *Designated Team* shall conduct an evaluation and estimate of the likelihood of *legionellosis* as specified in Section A4.1(e) ~~at least once per year~~ for each existing building at least once per year. Based on the results of this evaluation and estimate, the *Designated Team* shall modify the *legionellosis risk management plan* and ~~as necessary.~~ establish what *building water system* changes or events shall require a re-evaluation of the *legionellosis risk management plan.* These changes or events shall include building renovations affecting water systems, water systems component upgrades or replacements and water service interruption events. ~~This process shall be repeated for all affected areas~~

~~a. whenever a building or portion of a building is changed such that one or more water system is affected;~~

~~b. whenever major maintenance to a *building water system* is performed, including replacing tanks, pumps, heat exchangers, and distribution piping; and~~

~~c. whenever there is a *water service disruption* from the supplier to the building.~~

A6. BUILDING WATER SYSTEM PROCEDURES

A6.1

b. **Cooling towers and evaporative condensers.** This section describes the preventive measures required for cooling towers and evaporative condensers that provide cooling, ~~and/or~~ refrigeration or both cooling and refrigeration for the *HVAC&R* systems or for other devices or systems in the building. The *legionellosis risk management plan* documents shall include identification of the responsible persons for every step of each *legionellosis risk management plan* requirement.

BSR/ASHRAE Addendum u
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum u to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-407G, to Table 4-2 and Table D-2. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 1000 ppm v/v. The recommended ATEL is 52,000 ppm v/v.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum u to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

TABLE 4-2 Data and Safety Classifications for Refrigerant Blends
Refrigerant Number = 407G
Composition (Mass %) = R-32/125/134a (2.5/2.5/95.0)
Composition tolerances = ±0.5/±0.5/±1.0
OEL = 1000
Safety Group = A1
RCL = 52,000 ppm v/v; 13 lb/Mcf; 210 g/m3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends
Refrigerant Number = 407G
Composition (Mass %) = R-32/125/134a (2.5/2.5/95.0) Average Molecular Mass = 100.7 g/mol
Bubble Point (°F) = -20.6
Dew Point (°F) = -17.0
Bubble Point (°C) = -29.2
Dew Point (°C) = -27.2

BSR/ASHRAE Addendum v
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum v to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-455A, to Table 4-2 and Table D-2. The recommended flammability classification is 2L. The recommended toxicity classification A is based on an adopted OEL of 650 ppm v/v. The recommended ATEL is 110,000 ppm v/v.

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Addendum v to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

TABLE 4-2 Data and Safety Classifications for Refrigerant Blends
Refrigerant Number = 455A
Composition (Mass %) = R-744 /32/1234yf (3.0/21.5/75.5)
Composition tolerances = +2.0,-1.0/+1.0, -2.0/±2.0
OEL = 650
Safety Group = A2L
RCL = 30,000 ppm v/v; 23 lb/Mcf; 380 g/m3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends
Refrigerant Number = 455A
Composition (Mass %) = R-744 /32/1234yf (3.0/21.5/75.5) Average Molecular Mass = 87.5 g/mol
Bubble Point (°F) = -60.9
Dew Point (°F) = -38.4
Bubble Point (°C) = -51.6
Dew Point (°C) = -39.1

BSR/ASHRAE Addendum w
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum w to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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BSR/ASHRAE Addendum w to ANSI/ASHRAE Standard 34-2013, *Designation and Safety Classification of Refrigerants*

First Public Review Draft

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-407H, to Table 4-2 and Table D-2. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 1000 ppm v/v. The recommended ATEL is 92,000 ppm v/v.

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Addendum w to 34-2013

Add the following underlined data to Table 4-2 and Table D-2 in the columns indicated.

TABLE 4-2 Data and Safety Classifications for Refrigerant Blends
Refrigerant Number = 407H
Composition (Mass %) = R-32 /125/134a (32.5/15.0/52.5)
Composition tolerances = ±1.0/±1.0/±2.0
OEL = 1000
Safety Group = A1
RCL = 92,000 ppm v/v; 19 lb/Mcf; 300 g/m3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends
Refrigerant Number = 407H
Composition (Mass %) = R-32 /125/134a (32.5/15.0/52.5) Average Molecular Mass = 79.1 g/mol
Bubble Point (°F) = -48.5
Dew Point (°F) = -35.7
Bubble Point (°C) = -44.7
Dew Point (°C) = -37.6

BSR/ASHRAE Addendum x
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum x to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This addendum revises the zeotropic refrigerant blend R-744 in Table 4-1 and Table E-4.

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Addendum x to 34-2013

Revise as follows for R-744 as shown:

TABLE 4-1 Data and Safety Classifications for Refrigerant Blends
RCL = ~~40,000~~ 30,000 ppm v/v; ~~4.5~~ 3.4 lb/Mcf; ~~72~~ 54g/m3

Revise as follows for R-744 as shown:

TABLE E-1 Toxicity Table

LC50: ~~s~~ 159,000 ppm
Cardiac
NOEL= ~~p~~ 30,000
Anesthesia
NOEL= ~~ND~~ 50,000
ATEL= ~~40,000~~ 30,000
RCL= ~~40,000~~ 30,000
ATEL Source= ~~NIOSH IDLH~~ 100% Cardiac NOEL

BSR/ASHRAE/IES Addendum bt
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum bt to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

On April 18, 2013, the US Department of Energy published a final rule in the Federal Register that updated the energy efficiency standards of low-voltage dry-type distribution transformers. The new standards will take effect on January 1, 2016. This addendum updates all of the efficiency values in the table to be consistent with federal law.

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Addendum bt to 90.1-2013

Modify the standard as follows (IP and SI Units)

TABLE 8.4.4 Minimum Nominal Efficiency Levels for ~~10 CFR 431~~ Low-Voltage Dry-Type Distribution Transformers[a]

Single-Phase Transformers		Three-Phase Transformers	
kVA[b]	Efficiency,%[c]	kVA[b]	Efficiency,%[c]
15	97.70	15	~~97.0~~ 97.89
25	98.00	30	~~97.5~~ 98.23
37.5	98.20	45	~~97.7~~ 98.40
50	98.30	75	~~98.0~~ 98.60
75	98.50	112.5	~~98.2~~ 98.74
100	98.60	150	~~98.3~~ 98.83
167	98.70	225	~~98.5~~ 98.94
250	98.80	300	~~98.6~~ 99.02
333	98.90	500	~~98.7~~ 99.14
		750	~~98.8~~ 99.23
		1000	~~98.9~~ 99.28

a. A low-voltage distribution transformer is a transformer that is air-cooled, does not use oil as a coolant, has an input voltage ≤600 V, and is rated for operation at a frequency of 60 Hz.
b. Kilovolt-ampere rating.
c. Nominal efficiencies shall be established in accordance with the 10 CFR 431 test procedure for low-voltage dry-type transformers.

BSR/ASHRAE/IES Addendum bv
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum bv to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

The inclusion of reset controls in baselines with purchased chilled water or steam do not save energy as the primary equipment efficiency is not included in the model and benefits at the plant are not included in the analysis. In addition, benefits at the district plant are limited anyway as steam distribution wouldn't see any benefit, hot water distribution is highly dependent on size of system and consistency of control measures across all buildings/loads on the district system. Likewise for chilled water distribution, benefits to plant efficiency are limited and dependent on size of system and consistency of control methods across all buildings/loads on the distribution network. Including reset controls may increase baseline energy use depending on coil performance curves and increased water flow will increase pumping energy. Simple approach is to exempt baselines with purchased cooling and heat from the reset control requirements.

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Addendum bv to 90.1-2013

Modify the standard as follows (IP and SI Units)

G3.1.4.4 Hot-Water Supply Temperature Reset (Systems 1, 5, 7, and 11). Hot-water supply temperature shall be reset based on outdoor dry-bulb temperature using the following schedule: 180°F at 20°F and below, 150°F at 50°F and above, and ramped linearly between 180°F and 150°F at temperatures between 20°F and 50°F.

Exception:

1. <u>Systems served by purchased heat.</u>

G3.1.4.9 Chilled-Water Supply Temperature Reset (Systems 7, 8, 11, and 12). Chilled-water supply temperature shall be reset based on outdoor dry-bulb temperature using the following schedule: 44°F at 80°F and above, 54°F at 60°F and below, and ramped linearly between 44°F and 54°F at temperatures between 80°F and 60°F.

Exception:

1. If the baseline chilled-water system serves a computer room HVAC system, the supply chilled-water temperature shall be reset higher based on the HVAC system requiring the most cooling; i.e., the chilled-water setpoint is reset higher until one cooling-coil valve is nearly wide open. The maximum reset chilled-water supply temperature shall be 54°F.
2. <u>Systems served by purchased chilled-water.</u>

BSR/ASHRAE/IES Addendum bw
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum bw to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

Since Addendum BM which sets a fixed baseline for Appendix G was introduced several years ago, other changes to Appendix G have occurred in parallel, some in conflict with the Addendum BM approach. One such conflict occurs in establishing a baseline for lighting controls (and thus credit for lighting controls). This proposed change will provide a baseline for lighting controls consistent with Addendum BM. Credit for automatic occupant control of lighting that is not required in the Appendix G baseline is now established with the occupancy control reduction factors listed in Table G3.7. The reduction factors were developed by the SSPC 90.1 Lighting Subcommittee based on a review of all known sources of occupancy sensor savings data including metered data from multiple case studies as well as collections of data based on combinations of metered data and consensus.

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Addendum bw to 90.1-2013

Modify the standard as follows (IP and SI Units)

6. Lighting

Lighting power in the proposed design shall be determined as follows:

a. Where a complete lighting system exists, the actual lighting power for each thermal block shall be used in the model.

b. Where a lighting system has been designed and submitted with design documents, lighting power shall be determined in accordance with Sections 9.1.3 and 9.1.4.

c. Where lighting neither exists nor is submitted with design documents, lighting shall comply with but not exceed the requirements of Chapter 9. Lighting power shall be determined in accordance with the Building Area Method for the appropriate building type.

d. Lighting system power shall include all lighting system components shown or provided for on the plans (including lamps and ballasts and task and furniture-mounted fixtures).

Exception: For multifamily dwelling units, hotel/motel guest rooms, and other spaces in which lighting systems are connected via receptacles and are not shown or provided for on building plans, assume identical lighting

~~a.~~ Interior lighting power in the baseline building design shall be determined using the values in Table G3.7 ~~and the methodology described in Section 9.6.1 and 9.6.2.~~ Lighting shall be modeled having the automatic shutoff controls in buildings >5,000 ft2 and occupancy sensors in employee lunch and break rooms, conference/meeting rooms, and classrooms (not including shop classrooms, laboratory classrooms, and preschool through 12th grade classrooms). These controls shall be reflected in the baseline building design lighting schedules. No additional automatic lighting controls (e.g., automatic controls for daylight utilization and occupancy sensors in space types not listed above) shall be modeled in the *baseline building design* ~~Additional interior lighting power for nonmandatory controls allowed under Section 9.6.2(c) shall not be included in the baseline building design.~~

Exterior lighting in areas identified as Tradable Surfaces in Table G.3.6 shall be modeled with the baseline lighting power shown in Table G.3.6. Other exterior lighting shall be modeled the same in the baseline building as in the proposed design.

power for the proposed and baseline building designs in the simulations.

e. Lighting power for parking garages and building facades shall be modeled.

f. ~~The lighting schedules in the proposed building design shall reflect the mandatory automatic lighting control requirements in Section 9.4.1 (e.g., programmable controls or occupancy sensors).~~

~~Exception:~~ Automatic daylighting controls ~~required by Section 9.4.1~~ shall be modeled directly in the proposed building design or through schedule adjustments determined by a separate daylighting analysis approved by the rating authority.

g. Automatic lighting controls included in the proposed building design ~~but not required by Section 9.4.1 may~~ shall be modeled directly in the building simulation ~~or~~ by reducing the lighting schedule each hour by the occupancy control reduction factors in Table G3.8 for the applicable space type. This reduction shall be taken only for lighting controlled by the occupancy sensors. Credit for other programmable lighting control in buildings less than 5,000 ft^2 (465 m^2) can be taken by reducing the lighting schedule each hour by 10%.~~be modeled in the building simulation through schedule adjustments determined by a separate analysis approved by the authority having jurisdiction. As an alternative to modeling such lighting controls, the proposed building design lighting power may be reduced by the sum of all additional allowances per Section 9.6.2(c) and Table 9.6.2, which are calculated individually as the lighting power under control multiplied by *cf*, where *cf* is the appropriate control factor given in Table 9.6.2 corresponding to the space type and the lighting controls designed to be used.~~

h. ~~Credit may be taken for programmable timing controls or occupancy sensors.~~

~~Exception: No credit is allowed for occupancy sensors in employee lunch and break rooms, conference/meeting rooms, and classrooms (not including shop classrooms, laboratory classrooms, and preschool through 12th grade classrooms.)~~

~~b. Mandatory automatic lighting controls required by Section 9.4.1 shall be modeled the same as the proposed building design~~.

TABLE G3.7 Performance Rating Method Lighting Power Densities Using the Space-by-Space Method

Common Space Types1	LPD (W/ft²)	Occupancy Sensor Reduction(2)
Audience Seating Area		
... in an auditorium	.9	10%
... in a convention center	0.7	10%
… in an Exercise Center	0.3	10%
… in a gymnasium	0.4	10%
... in a motion picture theater	1.2	10%
... in a penitentiary	0.7	10%
... in a performing arts theater	2.6	10%
... in a religious building	1.7	10%
... in a sports arena	0.4	10%
… in a transportation facility	0.5	10%
… all other audience seating area	0.9	10%
Atrium		
… that is <= 40' in height	0.0375 per foot in total height	10%
… that is > 40' in height	0.50 + 0.025per foot in total height	10%
Banking Activity Area	1.5	10%
Breakroom (See Lounge/Breakroom)		
Classroom/Lecture Hall/Training Room		
… in a penitentiary	1.3	None
…preschool through 12th grade, laboratory, and shop classrooms	1.4	30%
… otherwise	1.4	None
Conference/Meeting/Multipurpose Room	1.3	None
Confinement Cells	0.9	10%
Copy/Print Room	0.90	10%
Corridor		25%
… in a facility for the visually impaired (and used primarily by residents)	1.15	25%
… in a hospital	1.00	25%
… in a manufacturing facility	0.50	25%
… otherwise	0.5	25%
Courtroom	1.9	10%
Computer Room	2.14	35%
Dining Area		
… in a penitentiary	1.30	35%
… in a facility for the visually impaired (and used primarily by residents)	3.32	35%
… in Bar/Lounge or Leisure Dining	1.40	35%
… in Cafeteria or Fast Food Dining	0.90	35%
… in Family Dining	2.10	35%
… all other dining room	0.90	35%
Electrical/Mechanical Room	1.50	30%
Emergency Vehicle Garage	0.80	10%
Food Preparation Area	1.20	30%
Guest Room	1.14	45%
Judges Chambers	1.30	30%
Laboratory		
… in or as a classroom	1.40	None
… all other laboratories	1.40	10%
Laundry/Washing Area	0.60	10%
Common Space Types1	**LPD (W/ft²)**	**Occupancy Sensor Reduction**
Loading Dock, Interior	0.59	10%
Lobby		25%
… in an Assisted Living Facility (and used primarily by residents)	2.26	25%
… for an elevator	2.26	25%
… in a hotel	0.80	25%
… in a motion picture theater	1.10	25%
… in a performing arts theater	1.10	25%
…all other lobbies	1.3	25%
Locker Room	0.6	25%
Lounge/Breakroom		
… in a healthcare facility	0.80	None
… all other lounge/breakroom	1.20	None
Office		
… enclosed	1.10	30%
… open plan	1.10	15% (3)
Parking Area, Interior	0.20	15%
Pharmacy Area	1.20	10%
Restroom		
… in an Assisted Living Facility (and used primarily by residents)	1.52	45%
… all other restrooms	0.90	45%
Sales Area	1.70	15%
Seating Area, General	0.68	10%
Stairwell	0.60	75%
Storage Room		
… in a hospital	0.90	45%
… that is >= 50 ft²	0.80	45%
… that is < 50 ft²	0.80	45%
Vehicular Maintenance Area	0.70	10%
Workshop	1.90	10%
Building Type Specific Space Types1	**LPD (W/ft²)**	**Occupancy Sensor Reduction**
Assisted Living Facility		
… in a chapel (used primarily by residents)	2.77	10%
… in a recreation room (used primarily by residents)	3.02	10%
Automotive (See Vehicular Maintenance Area above)		10%
Convention Center – Exhibit Space	1.30	35%
Dormitory - Living Quarters	1.11	10%
Fire Station - Sleeping Quarters	0.30	10%
Gymnasium/Fitness Center		
… in an Exercise Area	0.90	35%
… in a Playing Area	1.40	35%

Building Type Specific Space Types1	**LPD (W/ft²)**	**Occupancy Sensor Reduction**
Healthcare Facility		
… in an Imaging Room	2.70	10%
… in an Exam/Treatment Room	1.50	10%
~~… in an Imaging Room~~	~~0.40~~	~~22%~~
….in a Medical Supply Room	1.40	45%
… in a Nursery	0.60	10%
… in a Nurse's Station	1.00	10%
… in an Operating Room	2.20	10%
… in a Patient Room	0.70	10%
… in a Physical Therapy Room	0.90	10%
… in a Recovery Room	0.80	10%
Library		
… in a Reading Area	1.20	15%
… in the Stacks	1.70	15%
Manufacturing Facility		
… in a detailed manufacturing area	2.10	10%
… in an Equipment Room	1.20	10%
… in an Extra High Bay Area(> 50' floor-to-ceiling height)	1.32	10%
… in a High Bay Area (25-50' floor-to-ceiling height)	1.70	10%
… in a Low Bay Area (< 25' floor-to-ceiling height)	1.20	10%

Building Type Specific Space Types1	**LPD (W/ft²)**	**Occupancy Sensor Reduction**
Museum		
… in a General Exhibition Area	1.00	10%
… in a Restoration Room	1.70	10%
Post Office - Sorting Area	1.20	10%
Religious Buildings		
… in a Fellowship Hall	0.90	10%
… in a Worship/Pulpit/Choir Area	2.40	10%
Retail Facilities		
… in a Dressing/Fitting Room	0.89	10%
… in a Mall Concourse	1.70	10%
Sports Arena - Playing Area		
… for a Class I facility	4.61	10%
… for a Class II facility	3.01	10%
… for a Class III facility	2.26	10%
… for a Class IV facility	1.50	10%
Transportation Facility		
… in a baggage/carousel Area	1.00	10%
… in an Airport Concourse	0.60	10%
… at a Terminal Ticket Counter	1.50	10%
Warehouse - Storage Area		
…for medium to bulky, palletized items	0.90	45%
… for smaller, hand-carried items	1.40	45%

1 - In cases where both a common space type and a building area specific space type are listed, the building area specific space type shall apply.
2 – For manual-on or partial-auto-on occupancy sensors, the occupancy sensor reduction factor shall be multiplied by 1.25.
3 – For occupancy sensors controlling individual workstation lighting, occupancy sensor reduction factor shall be 30%.

BSR/ASHRAE/IES Addendum bx
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum bx to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

Addendum bx to 90.1-2013

Modify the standard as follows (IP and SI Units)

G3.1.2.9.1 Baseline All System Types Except System Types 9 and 10. System design supply airflow rates for the baseline building design shall be based on a supply-air -to room~~-air~~ temperature set point difference of 20°F or the minimum outdoor airflow rate, or the airflow rate required to comply with applicable codes or accreditation standards, whichever is greater. For systems with multiple zone thermostat set points, use the design set point that will result in the lowest supply air cooling set point or highest supply air heating set point. If return or relief fans are specified in the proposed design, the baseline building design shall also be modeled with fans serving the same functions and sized for the baseline system supply fan air quantity less the minimum outdoor air, or 90% of the supply fan air quantity, whichever is larger.

Exceptions:

1. For systems serving laboratory spaces, airflow rates shall be based on ~~use~~ a supply-air-to-room~~-air~~ temperature set point difference of 17°F or the required ventilation air or makeup air, whichever is greater.
2. If the proposed design HVAC ~~design~~ system airflow rate based on latent loads is greater than the design airflow rate based on sensible loads, then the same supply-air-to-room-air humidity ratio difference (gr/lb) used to calculate the proposed design airflow shall be used to calculate design airflow rates for the baseline building design.

BSR/ASHRAE/IES Addendum by
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum by to Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

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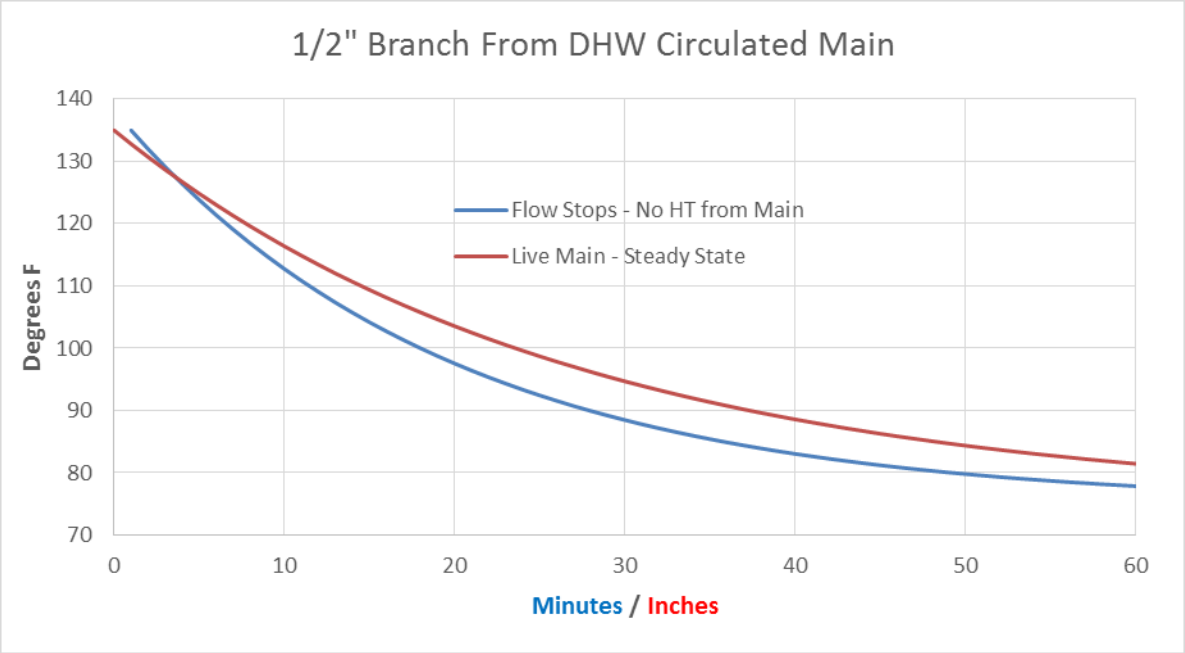
FOREWORD

Uninsulated branches off of recirculated pipe systems can substantially increase the heat loss of the recirculated system, plus this uninsulated piping increases energy use when people wait for hot water to arrive at fixtures.



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Addendum by to 90.1-2013

Revise the Standard as follows (IP and SI Units)

7.4.3 Service Hot-Water Piping Insulation. The following piping shall be insulated to levels shown in Section 6, Table 6.8.3-1:

a. Recirculating system piping, including the supply and return piping of a circulating tank type water heater
b. The first 8 ft of outlet piping for a constant temperature nonrecirculating storage system
c. The first 8 ft of branch piping connecting to recirculated, heat traced, or impedance heated piping
~~c.~~d. The inlet piping between the storage tank and a heat trap in a nonrecirculating storage system
~~d.~~e. Piping that is externally heated (such as heat trace or impedance heating)

BSR/ASHRAE/IES Addendum bz
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FOREWORD

In 2012, AHSRAE amended Standard 127 to include new rating conditions for computer room air conditioners. Later in 2013, AHRI developed Standard 1360 which incorporates ASHRAE 127-2012 as a method of test. AHRI 1360 includes the same new rating conditions that are listed in ASHRAE 127-2012. AHRI member companies have started to test their equipment based on the AHRI standard and an industry certification program was put in place to independently verify the performance rating of these products.

This addendum replaces the current Table 6.8.1-11 in its entirety and replaces it with a new table to account for the new rating conditions. These new rating conditions add 3 application classes. Minimum net sensible COP values were developed for the new classes, while net sensible COP values for class 1(i.e. 75F dry-bulb/52F dew-point) were kept the same or equivalent to those currently listed in ASHRAE 90.1-2013.

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Addendum bz to 90.1-2013

Revise the Standard as follows:

1) *Delete existing Table 6.8.1-11 "Air Conditioners and Condensing Units Serving Computer Rooms" in its entirety and replace with new Table as shown below*

TABLE 6.8.1-11 Air Conditioners and Condensing Units Serving Computer Rooms (IP)

			Minimum Net Sensible COP Return Air Dry-Bulb Temperature/Dew-Point Temperature				
			Class 1	Class 2	Class 3	Class 4	
Equipment Type	Net Sensible Cooling Capacity	Configuration	75F/52F	85F/52F	95F/52F	105F/52F	Test Procedure
Air Cooled	<65,000 Btu/h	Raised Floor	2.20	2.30	2.40	2.55	AHRI 1360
		Ducted	2.10	2.10	2.20	2.35	
		Free Blow	2.30	2.35	2.45	2.60	
	>=65,000 and <240,000 Btu/h	Raised Floor	2.10	2.20	2.30	2.45	
		Ducted	2.00	2.05	2.10	2.25	
		Free Blow	2.15	2.25	2.35	2.50	
	>=240,000 Btu/h	Raised Floor	1.90	2.00	2.10	2.20	
		Ducted	1.80	1.85	1.95	2.05	
		Free Blow	1.95	2.05	2.15	2.25	
Water Cooled	<65,000 Btu/h	Raised Floor	2.40	2.50	2.65	2.80	AHRI 1360
		Ducted	2.25	2.30	2.45	2.60	
		Free Blow	2.45	2.55	2.70	2.85	
	>=65,000 and <240,000 Btu/h	Raised Floor	2.30	2.40	2.55	2.70	
		Ducted	2.15	2.20	2.35	2.50	
		Free Blow	2.40	2.45	2.60	2.75	
	>=240,000 Btu/h	Raised Floor	2.20	2.25	2.40	2.50	
		Ducted	2.05	2.10	2.20	2.35	
		Free Blow	2.25	2.30	2.45	2.55	
Water Cooled with Fluid Economizer	<65,000 Btu/h	Raised Floor	2.35	2.45	2.55	2.75	AHRI 1360
		Ducted	2.20	2.25	2.35	2.50	
		Free Blow	2.40	2.50	2.60	2.80	
	>=65,000 and <240,000 Btu/h	Raised Floor	2.25	2.35	2.50	2.60	
		Ducted	2.10	2.15	2.30	2.45	
		Free Blow	2.30	2.40	2.55	2.65	
	>=240,000 Btu/h	Raised Floor	2.15	2.20	2.35	2.45	
		Ducted	2.00	2.05	2.15	2.25	
		Free Blow	2.20	2.25	2.40	2.50	
Glycol Cooled	<65,000 Btu/h	Raised Floor	2.15	2.30	2.40	2.55	AHRI 1360
		Ducted	2.00	2.10	2.25	2.40	
		Free Blow	2.25	2.30	2.40	2.55	
	>=65,000 and <240,000 Btu/h	Raised Floor	1.95	2.05	2.15	2.30	
		Ducted	1.85	1.85	1.95	2.05	
		Free Blow	2.00	2.05	2.15	2.30	
	>=240,000 Btu/h	Raised Floor	1.85	1.95	2.10	2.20	

		Ducted	1.75	1.80	1.90	2.00	
		Free Blow	1.95	2.05	2.10	2.25	
Glycol Cooled with Fluid Economizer	<65,000 Btu/h	Raised Floor	2.10	2.25	2.35	2.45	AHRI 1360
		Ducted	2.00	2.10	2.15	2.25	
		Free Blow	2.20	2.30	2.35	2.50	
	>=65,000 and <240,000 Btu/h	Raised Floor	1.90	1.95	2.05	2.20	
		Ducted	1.75	1.80	1.90	2.00	
		Free Blow	1.95	2.00	2.10	2.20	
	>=240,000 Btu/h	Raised Floor	1.80	1.90	2.00	2.15	
		Ducted	1.70	1.80	1.85	1.95	
		Free Blow	1.55	2.00	2.10	2.20	

2) Add new reference in Section 12 as follows:

ANSI/AHRI Standard 1360-2013 (I-P) with Addendum 1 — Performance Rating of Computer and Data Processing Room Air Conditioners

SI Units

TABLE 6.8.1-11 Air Conditioners and Condensing Units Serving Computer Rooms (SI units)

			Minimum Net Sensible COP				
			Return Air Dry-Bulb Temperature/Dew-Point Temperature				
			Class 1	**Class 2**	**Class 3**	**Class 4**	
Equipment Type	**Net Sensible Cooling Capacity**	**Configuration**	**24C/11C**	**29.5C/11C**	**35C/11C**	**40.5C/11C**	**Test Procedure**
Air Cooled	<19 kW	Raised Floor	2.20	2.30	2.40	2.55	AHRI 1361
		Ducted	2.10	2.10	2.20	2.35	
		Free Blow	2.30	2.35	2.45	2.60	
	e19 kW and <70 kW	Raised Floor	2.10	2.20	2.30	2.45	
		Ducted	2.00	2.05	2.10	2.25	
		Free Blow	2.15	2.25	2.35	2.50	
	e70 kW	Raised Floor	1.90	2.00	2.10	2.20	
		Ducted	1.80	1.85	1.95	2.05	
		Free Blow	1.95	2.05	2.15	2.25	
Water Cooled	<19 kW	Raised Floor	2.40	2.50	2.65	2.80	AHRI 1361
		Ducted	2.25	2.30	2.45	2.60	
		Free Blow	2.45	2.55	2.70	2.85	

		Raised Floor	2.30	2.40	2.55	2.70	
		Ducted	2.15	2.20	2.35	2.50	
	≥ 19 kW and <70 kW	Free Blow	2.40	2.45	2.60	2.75	
		Raised Floor	2.20	2.25	2.40	2.50	
		Ducted	2.05	2.10	2.20	2.35	
	≥ 70 kW	Free Blow	2.25	2.30	2.45	2.55	
		Raised Floor	2.35	2.45	2.55	2.75	AHRI 1361
		Ducted	2.20	2.25	2.35	2.50	
	<19 kW	Free Blow	2.40	2.50	2.60	2.80	
		Raised Floor	2.25	2.35	2.50	2.60	
		Ducted	2.10	2.15	2.30	2.45	
Water Cooled with Fluid Economizer	≥ 19 kW and <70 kW	Free Blow	2.30	2.40	2.55	2.65	
		Raised Floor	2.15	2.20	2.35	2.45	
		Ducted	2.00	2.05	2.15	2.25	
	≥ 70 kW	Free Blow	2.20	2.25	2.40	2.50	
		Raised Floor	2.15	2.30	2.40	2.55	AHRI 1361
		Ducted	2.00	2.10	2.25	2.40	
	<19 kW	Free Blow	2.25	2.30	2.40	2.55	
		Raised Floor	1.95	2.05	2.15	2.30	
		Ducted	1.85	1.85	1.95	2.05	
Glycol Cooled	≥ 19 kW and <70 kW	Free Blow	2.00	2.05	2.15	2.30	
		Raised Floor	1.85	1.95	2.10	2.20	
		Ducted	1.75	1.80	1.90	2.00	
	≥ 70 kW	Free Blow	1.95	2.05	2.10	2.25	
		Raised Floor	2.10	2.25	2.35	2.45	AHRI 1361
		Ducted	2.00	2.10	2.15	2.25	
	<19 kW	Free Blow	2.20	2.30	2.35	2.50	
		Raised Floor	1.90	1.95	2.05	2.20	
		Ducted	1.75	1.80	1.90	2.00	
Glycol Cooled with Fluid Economizer	≥ 19 kW and <70 kW	Free Blow	1.95	2.00	2.10	2.20	
		Raised Floor	1.80	1.90	2.00	2.15	
		Ducted	1.70	1.80	1.85	1.95	
	≥ 70 kW	Free Blow	1.55	2.00	2.10	2.20	

1) Add new reference in Section 12 as follows:

ANSI/AHRI Standard 1361-2013 (SI) with Addendum 1 — Performance Rating of Computer and Data Processing Room Air Conditioners

BSR/ASHRAE/IES Addendum ca
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum ca to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

The reduced cost, improved availability, better system control, and maintenance benefits of variable speed technology, coupled with the associated energy savings justifies the following updates to Section 6.5.5.2, Fan Speed Control for Heat Rejection Equipment:

- *Lowering of the motor power threshold for the fan speed control requirement from 7.5 HP (5.6 kW) to 5 HP (3.7 kW).*
- *The inclusion of heat rejection equipment equipped with multiple fans with a combined motor power that exceeds the new limit.*
- *Elimination of the Climate Zone exception (Exception 1).*

Originally, Climate Zones 1 and 2 were exempted due to the high expected loads requiring the heat rejection fans to operate frequently at full speed in these climate zones. However, the declining cost and many benefits of variable speed devices, coupled with the many opportunities for speed reduction even in hot / humid climate zones, justifies the inclusion of this requirement in all climate zones.

Due to the control complexities associated with condensers and fluid coolers that have multiple cooling circuits with common fans serving different systems and flooded condensers, the first two exceptions were maintained, especially as these represent a small portion of the market and operators can still use variable speed technology if the particular system can accommodate such technology. Lastly, the same challenges with multiple refrigeration circuits served by the same fan(s) exist for fluid cooling circuits so Exception 1 was revised to reflect this.

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Addendum ca to 90.1-2013

Modify the standard as follows (IP Units)

6.5.5.2 Fan Speed Control

6.5.5.2.1 ~~Each~~The fan system on a heat rejection device powered by an individual motor or an array of motors with a connected power totaling ~~of 7.~~5 hp or ~~larger~~more shall have ~~the capability to operate at two-thirds full speed or less~~ controls and/or devices (such as variable-speed control) that shall result in fan motor demand of no more than 30% of design wattage at 50% of the design airflow and that shall ~~have controls that~~ automatically ~~change~~ modulate the fan speed ~~automatically~~ to control the leaving fluid temperature or condensing temperature/pressure of the heat rejection device.

Exceptions:

1. Condenser fans serving multiple refrigerant or fluid cooling circuits
2. Condenser fans serving flooded condensers
~~3. Installations located in Climate Zones 1 and 2~~

Modify the standard as follows (SI Units)

6.5.5.2 Fan Speed Control

6.5.5.2.1 ~~Each~~The fan system on a heat rejection device powered by an individual motor or an array of motors with a connected power totaling ~~of 5.6~~ 3.7 kW or ~~larger~~more shall have ~~the capability to operate at two-thirds full speed or less~~ controls and/or devices (such as variable-speed control) that shall result in fan motor demand of no more than 30% of design wattage at 50% of the design airflow and that shall ~~have controls that~~ automatically ~~change~~ modulate the fan speed ~~automatically~~ to control the leaving fluid temperature or condensing temperature/pressure of the heat rejection device.

Exceptions:

1. Condenser fans serving multiple refrigerant or fluid cooling circuits
2. Condenser fans serving flooded condensers
~~3. Installations located in Climate Zones 1 and 2~~

BSR/ASHRAE/IES Addendum cb
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum cb to Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

First Public Review (September 2015)
(Draft shows Proposed Changes)

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FOREWORD

Note: This proposed addendum updates the duct insulation requirements in Standard 90.1 that have been in effect since the 2001 edition of the Standard. The Mechanical Subcommittee (MSC) of SSPC 90.1 reviewed duct insulation criteria in related energy codes and standards including the 2015 International Energy Conservation Code, the International Green Construction Code, ASHRAE Standard 189.1-2014 and California's 2013 Title 24. The MSC observed that the Standard 90.1-2013 criteria were the most complex of these codes and standards (with seven columns of duct locations) while the trend in recent years has been to simplify the duct locations into just two: Exterior and Unconditioned Space.

In addition, the MSC observed that the 90.1 duct insulation requirements were considerably less stringent than the other energy codes and standards even though higher levels of duct insulation have been found to be cost-effective in studies supporting changes to the 2015 IECC and Title 24. Most recently, a Pacific Northwest National Laboratory (PNNL) study determined it was cost effective for the 2015 IECC to require R-12 insulation on exterior ducts in climate zones (CZ) 5 through 8 (Hart 2012[1]) using both ASHRAE's scalar factor method as well as a DOE net present value analysis. The MSC further updated and reviewed common duct insulation materials and installation costs to confirm the PNNL economic analysis. That review is reflected in the new Table 6.8.2 in this proposed addendum that incorporates many of the duct insulation requirements in the 2015 IECC.

The MSC also reevaluated previous simplification efforts and concluded that insulation requirements for Exterior and Unconditioned duct locations are overly stringent for Indirectly Conditioned spaces within the building thermal envelope. Therefore the MSC retained the Indirectly Conditioned duct location, (which also includes return air plenums with or without exposed roofs above) and moved from no requirement to a minimum value of R-1.9, a common design practice insulation value to control condensation from ductwork. As a common practice, the MSC expects little or no incremental cost for compliance with this requirement. The MSC also determined that the duct insulation requirements for Heating Only in CZ 0-1 should be "none" due to minimal heating hours. Similarly, the requirements in CZ 7-8 for Cooling Only were relaxed because of minimal cooling hours and milder outdoor temperatures.

The new Table 6.8.2 also replaces two separate tables for Cooling-Only and Heating-Only ductwork 6.8.2-1) and Combined Heating and Cooling ductwork (Table 6.8.2-2) with a single table to address all ductwork and locations. The MSC also found that the new requirements can provide demonstrated energy and energy cost savings. For example, the analysis for CZ-5 shows that improved insulation to R-12 from R-8 can reduce annual costs of duct energy loss (in the range of $3.00-$4.00 per square foot [$32-$43 per square meter]) by $1.00 per square foot [$11 per square meter] or more, using incremental duct insulation costs of $0.70 per square foot [$7 per square meter] of duct surface area.

[1] Hart, R., 2012. Supporting analysis for proposed changes to the commercial provisions of the 2012 IECC: Increase Duct and Plenum Insulation. Pacific Northwest National Laboratory. December, 2012.

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 cb to 90.1-2013

Revise the standard as follows (IP units)

6.4.4.1.2 Duct and Plenum Insulation. All supply and return ducts and plenums installed as part of an HVAC air distribution system shall be thermally insulated in accordance with Table~~s~~ 6.8.2~~-1 and 6.8.2-2~~.

Delete Tables 6.8.2-1 and 6.8.2-2 and replace with new Table 6.8.2 as shown below.

~~**TABLE 6.8.2-1 Minimum Duct Insulation R-Value,a**~~
~~**Cooling- and Heating-Only Supply Ducts and Return Ducts**~~

~~**TABLE 6.8.2-2 Minimum Duct Insulation R-Value,a**~~
~~**Combined Heating and Cooling Supply Ducts and Return Ducts**~~

TABLE 6.8.2 Minimum Duct Insulation R-Value[a]

Climate Zone	Duct Location		
	Exterior[b]	Unconditioned Space and Buried Ducts	Indirectly Conditioned Space[c,d]
Supply and Return Ducts for Heating and Cooling			
0 to 4	R-8	R-6	R-1.9
5 to 8	R-12	R-6	R-1.9
Supply and Return Ducts for Heating Only			
0 to 1	none	none	none
2 to 4	R-6	R-6	R-1.9
5 to 8	R-12	R-6	R-1.9
Supply and Return Ducts for Cooling Only			
0 to 6	R-8	R-6	R-1.9
7 to 8	R-1.9	R-1.9	R-1.9

[a]Insulation R-values, measured in $(h \cdot ft^2 \cdot °F)/Btu$, are for the insulation as installed and do not include film resistance. The required minimum thicknesses do not consider water vapor transmission and possible surface condensation. Where ~~exterior walls~~ portions of the building envelope are used as a plenum~~ walls~~, ~~wall~~ insulation shall be as required by the most restrictive condition of Section 6.4.4.2 or Section 5, depending on whether the plenum is located in the roof, wall, or floor. Insulation resistance measured on a horizontal plane in accordance with ASTM C518 at a mean temperature of 75°F at the installed thickness.
[b]Includes attics above insulated ceilings, parking garages and crawl spaces.
[c] Includes return air plenums with or without exposed roofs above.
[d] Return ducts in this duct location do not require insulation.

SI Version:

6.4.4.1.2 Duct and Plenum Insulation. All supply and return ducts and plenums installed as part of an HVAC air distribution system shall be thermally insulated in accordance with Table~~s~~ 6.8.2~~-1 and 6.8.2-2~~.

Delete Tables 6.8.2-1 and 6.8.2-2 and replace with new Table 6.8.2 as shown below.

~~**TABLE 6.8.2-1 Minimum Duct Insulation R-Value,a**~~
~~**Cooling- and Heating-Only Supply Ducts and Return Ducts**~~

~~**TABLE 6.8.2-2 Minimum Duct Insulation R-Value,a**~~
~~**Combined Heating and Cooling Supply Ducts and Return Ducts**~~

TABLE 6.8.2 Minimum Duct Insulation R-Value[a]

Climate Zone	Duct Location		
	Exterior[b]	Unconditioned Space and Buried Ducts	Indirectly Conditioned Space[c,d]
Supply and Return Ducts for Heating and Cooling			
0 to 4	R-1.41	R-1.06	R-0.34
5 to 8	R-2.12	R-1.06	R-0.34
Supply and Return Ducts for Heating Only			
0 to 1	none	none	none
2 to 4	R-1.06	R-1.06	R-0.34
5 to 8	R-2.12	R-1.06	R-0.34
Supply and Return Ducts for Cooling Only			
0 to 6	R-1.41	R-1.06	R-0.34
7 to 8	R-0.34	R-0.34	R-0.34

[a]Insulation R-values, measured in $(m^2 \cdot K)/W$, are for the insulation as installed and do not include film resistance. The required minimum thicknesses do not consider water vapor transmission and possible surface condensation. Where ~~exterior walls~~ portions of the building envelope are used as a plenum~~ walls~~, ~~wall~~ insulation shall be as required by the most restrictive condition of Section 6.4.4.2 or Section 5, depending on whether the plenum is located in the roof, wall, or floor. Insulation resistance measured on a horizontal plane in accordance with ASTM C518 at a mean temperature of 23.9°C at the installed thickness.
[b]Includes attics above insulated ceilings, parking garages and crawl spaces.
[c] Includes return air plenums with or without exposed roofs above.
[d]Return ducts in this duct location do not require insulation.

BSR/ASHRAE/IES Addendum cc
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum cc to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposed addendum replaces the definition of sidelighting effective aperture that was inadvertently deleted in ASHRAE 90.1-2013. This definition matches the definition in the ASHRAE 90.1-2013 users manual and ASHRAE 189.1-2014.

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Addendum cc to 90.1-2013

Revise the Standard as follows (IP and SI Units)

Add following to Section 3.2 definitions:

sidelighting effective aperture: relationship of daylight transmitted through vertical fenestration to the primary sidelighted areas. The sidelighting effective aperture is calculated according to the following formula:

$$Sidelighting\ Effective\ Aperture = \frac{\sum vertical\ fenestration\ area \times vertical\ fenestration\ VT}{\text{area of } primary\ sidelighted\ area}$$

where vertical fenestration VT is the visible transmittance of vertical fenestration as determined in accordance with Section 5.8.2.5.

BSR/ASHRAE/IES Addendum ce
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum ce to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This addendum increases the minimum ERV requirements from zero to a reasonable minimum size for smaller units. There are small HVAC units (for example, PTACS in apartment buildings) where energy recovery is currently required with very small amounts of supply air. With this addendum, the supply air requirements at various outside air fractions are reduced so at least 40 cfm of outside air is available for recovery for continuous ventilation systems in the coldest climate zones. This airflow limit matches the smallest typical ERV unit available and ventilation requirements for residential units larger than 500 square feet, representing about two-thirds of the multi-family units (https://www.census.gov/construction/chars/mfu.html). There continues to be a requirement for most dwelling units to have energy recovery in the colder climates. In warmer climates, a larger unit is used as the threshold, based on an estimated cost-effectiveness using an 8.0 year ASHRAE scalar and a simplified temperature bin calculation. Note that climate zones 0A and 0B are not included here as they are being added in addendum BR.

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Addendum ce to 90.1-2013

Modify the standard as follows (IP and SI Units)

Revise Table 6.5.6.1-1and Table 6.5.6.1-1 as follows:

TABLE 6.5.6.1-1 (IP) Exhaust Air Energy Recovery Requirements for Ventilation Systems Operating Less than 8000 Hours per Year

Zone	% Outdoor Air at Full Design Airflow Rate							
	≥10% and <20%	≥20% and <30%	≥30% and < 40%	≥40% and < 50%	≥50% and < 60%	≥60% and < 70%	≥70% and < 80%	≥80%
	Design Supply Fan Airflow Rate, cfm							
3B, 3C, 4B, 4C, 5B	NR	NR	NR	NR	NR	NR	NR	NR
1B, 2B,5C	NR	NR	NR	NR	≥26000	≥12000	≥5000	≥4000
6B	≥28000	≥26500	≥11000	≥5500	≥4500	≥3500	≥2500	≥1500
1A, 2A, 3A, 4A, 5A, 6A	≥26,000	≥16,000	≥5500	≥4500	≥3500	≥2000	≥1000	~~>0~~≥120

7,8	≥4500	≥4000	≥2500	≥1000	~~>0~~>140	~~>0~~>120	~~>0~~>100	~~>0~~>80

NR—Not required

TABLE 6.5.6.1-2 (IP) Exhaust Air Energy Recovery Requirements for Ventilation Systems Operating Greater than or Equal to 8000 Hours per Year

Zone	% Outdoor Air at Full Design Airflow Rate							
	≥10% and <20%	**≥20% and <30%**	**≥30% and <40%**	**≥40% and <50%**	**≥50% and <60%**	**≥60% and <70%**	**≥70% and < 80%**	**≥80%**
	Design Supply Fan Airflow Rate, cfm							
3C	NR	NR	NR	NR	NR	NR	NR	NR
1B, 2B, 3B, 4C, 5C	NR	≥19,500	≥9000	≥5000	≥4000	≥3000	≥1500	~~>0~~e120
1A, 2A, 3A, 4B, 5B	≥2500	≥2000	≥1000	≥500	~~>0~~e140	~~>0~~e120	~~>0~~e100	~~>0~~e80
4A, 5A, 6A, 6B, 7, 8	~~>0~~e200	~~>0~~e130	~~>0~~e100	~~>0~~e80	~~>0~~e70	~~>0~~e60	~~>0~~e50	~~>0~~e40

NR—Not required

TABLE 6.5.6.1-1 (SI)Exhaust Air Energy Recovery Requirements for Ventilation Systems Operating Less than 8000 Hours per Year

Zone	% Outdoor Air at Full Design Airflow Rate							
	≥10% and <20%	**≥20% and <30%**	**≥30% and < 40%**	**≥40% and < 50%**	**≥50% and < 60%**	**≥60% and < 70%**	**≥70% and < 80%**	**≥80%**
	Design Supply Fan Airflow Rate,							
3B, 3C, 4B, 4C, 5B	NR	NR	NR	NR	NR	NR	NR	NR
0B, 1B, 2B,5C	NR	NR	NR	NR	≥12271	e5663	e2360	e1888
6B	e13215	e12507	e5191	e2596	e2124	e1652	e1180	e708
0A, 1A, 2A, 3A, 4A, 5A, 6A	e12271	e7551	e2596	e2124	e1652	e944	e472	~~>0~~e60
7,8	e2124	e1888	e1180	e500	~~>0~~e70	~~>0~~e60	~~>0~~e50	~~>0~~e40

NR—Not required

TABLE 6.5.6.1-2 (SI) Exhaust Air Energy Recovery Requirements for Ventilation Systems Operating Greater than or Equal to 8000 Hours per Year

Zone	% Outdoor Air at Full Design Airflow Rate							
	≥10% and <20%	**≥20% and <30%**	**≥30% and <40%**	**≥40% and <50%**	**≥50% and <60%**	**≥60% and <70%**	**≥70% and < 80%**	**≥80%**

	Design Supply Fan Airflow Rate, L/s							
3C	NR	NR	NR	NR	NR	NR	NR	NR
0B ,1B, 2B, 3B, 4C, 5C	NR	≥2903	≥4248	≥2360	≥1888	≥1416	≥708	~~>0~~e60
0A, 1A, 2A, 3A, 4B, 5B	≥1180	≥944	≥472	≥236	~~>0~~e35	~~>0~~e60	~~>0~~e50	~~>0~~e40
4A, 5A, 6A, 6B, 7, 8	~~>0~~e100	~~>0~~e65	~~>0~~e50	e40	~~>0~~e35	~~>0~~e30	~~>0~~e25	~~>0~~e20

NR—Not required

BSR/ASHRAE/IES Addendum cf
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum cf to Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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BSR/ASHRAE/IES Addendum cf to ANSI/ASHRAE/IESNA Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*
First Public Review Draft

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FOREWORD

In the section 6 Heating, Ventilating, And Air Conditioning scope the current 90.1-2013 requires that New HVACR equipment as a direct replacement of existing HVACR equipment shall comply with the specific minimum efficiency requirements applicable to that equipment, but does not require the replacement equipment to comply with any of the other section 6 requirements. For example this does not require economizers, fan speed control, setback thermostats and more. This eliminates many of the significant energy savings that new equipment is capable of doing as required by new construction and major retrofits. This proposed addendum adds additional requirements to section 6.1.1.3.1 for direct replacement HVAC equipment. Only requirements are being added that are easily done as part of a direct replacement.

All the features that are being added have already been justified by prior addendums for new construction equipment so no additional cost justification is needed.

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Addendum cf to 90.1-2013

Revise the Standard as follows (IP and SI Units)

6.1.1.3.1. New HVACR equipment as a direct replacement of existing HVACR equipment shall comply with the ~~specific minimum efficiency requirements applicable to that equipment.~~ following sections as applicable for the equipment being replaced;

6.3 Simplified Approach Option for HVAC Systems
6.4.1 Equipment Efficiencies, Verification, and Labeling Requirements
6.4.3.1 Zone Thermostatic Controls
6.4.3.2 Setpoint overlap Restrictions
6.4.3.3 Off-Hour Control except for Section 6.4.3.3.4 zone isolation
6.4.3.4 Ventilation Control
6.4.3.7 Freeze Protection and Snow/Ice Melting Systems
6.4.3.8 Ventilation Controls for High-Occupancy Areas only for single zone equipment.
6.4.3.9 Heating in Vestibules
6.4.5 Walk-In Coolers and Freezers
6.5.1.1 Air Economizers for units located outdoors
6.5.1.3 Integrated Economizer Control
6.5.1.4 Staging Requirements
6.5.1.5 Economizer Heating Requirements
6.5.3.1.3 Fan Efficiency

6.5.3.2.1 Fan Airflow Control
6.5.3.5 Fractional Horsepower Fan Motors
6.5.4.1 Boiler Turndown
6.5.4.3 Chiller and Boiler Isolation
6.5.5.2 Fan Speed Control

BSR/ASHRAE/IES Addendum ci
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum ci to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposed addendum adjusts the equations for fenestration orientation in Section 5.5.4.5. Equation (a) is not changed, allowing a building to continue to comply based on properly distributed fenestration area. Equation (b) is adjusted in northern climate zones to require a lower SHGC for west and east facing fenestration following a cost effectiveness analysis with the reference medium office building. Equation (b) also allows the flexibility to use combinations of fenestration area, exterior shading, and SHGC to demonstrate compliance. At the end of this addendum, there is text that shows how the exceptions to this section will appear when this addendum is merged with addendum v.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum ci to 90.1-2013

Modify the standard as follows (IP and SI Units)

5.5.4.5 Fenestration Orientation. The vertical fenestration shall comply with either (a) or (b):

a. For Climate Zones 0-8:

$$A_W \le (A_T)/4 \text{ and } A_E \le (A_T)/4$$

b. For Climate Zones 0-3:

$$A_W \times \text{SHGC}_W \le (A_T \times \text{SHGC}_C)/4 \text{ and } A_E \times \text{SHGC}_E \le (A_T \times \text{SHGC}_C)/4$$

c. For Climate Zones 4-8:

$$\underline{A_W \times \text{SHGC}_W \le (A_T \times \text{SHGC}_C)/5 \text{ and } A_E \times \text{SHGC}_E \le (A_T \times \text{SHGC}_C)/5}$$

where

A_w = west-oriented vertical fenestration area (oriented within 45 degrees of true west to the south and within 22.5 degrees of true west to the north in the northern hemisphere; oriented within 45 degrees of true west to the north and within 22.5 degrees of true west to the south in the southern hemisphere)

A_e = east-oriented vertical fenestration area (oriented within 45 degrees of true east to the south and within 22.5 degrees of true east to the north in the northern hemisphere; oriented within 45 degrees of true east to the north and within 22.5 degrees of true east to the south in the southern hemisphere)

A_T = total vertical fenestration area

SHGC_C = SHGC criteria in Tables 5.5-1 through 5.5-8 for each climate zone

SHGC_E = SHGC for east-oriented fenestration that complies with Section 5.5.4.4.1

SHGC_W = SHGC for west-oriented fenestration that complies with Section 5.5.4.4.1

(Informative note: Addendum v to 90.1-2013 modified the exceptions to this section, and the following shows how the exception list would look if this addendum and addendum v are both published)

Exceptions:

1. Vertical fenestration that complies with Exception (3) Section 5.5.4.4.1.
2. Buildings with shade on 75% of the east- and west-oriented vertical fenestration areas from permanent projections, existing buildings, existing permanent infrastructure, or topography at 9 a.m. and 3 p.m., respectively, on the summer solstice (June 21 in the northern hemisphere).
3. Alterations and additions with no increase in vertical fenestration area.
4. Buildings where the west-oriented and east-oriented vertical fenestration area (as defined in Section 5.5.4.5) does not exceed 20% of the gross wall area for each of those façades, and SHGC on those facades is no greater than 90% of the criteria in Tables 5.5-1 through 5.5-8.
5. Buildings in Climate Zone 8.

BSR/ASHRAE/IES Addendum cj
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum cj to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

Appendix G sets baseline HVAC systems heating fuel source based on climate zone, with warm climates using electric heat and cold climates using natural gas. This was a change made in the 2013 Standard. Prior to that, the baseline heating fuel source was dependent on the proposed building. When the change was made in 2013, a footnote was missed that applied the old rule to system 11 (single zone VAV serving computer rooms). This proposal modifies that footnote to be consistent with the current approach of setting the baseline heating fuel source by climate zone.

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Addendum cj to 90.1-2013

Modify the standard as follows (IP and SI Units)

G3.1.1-2 Baseline System Descriptions

System No.	*System Type*	*Fan Control*	*Cooling Type(1)*	*Heating Type(1)*
1. PTAC	Packaged terminal air conditioner	Constant volume	Direct expansion	Hot-water fossil fuel boiler
2. PTHP	Packaged terminal heat pump	Constant volume	Direct expansion	Electric heat pump
3. PSZ-AC	Packaged rooftop air conditioner	Constant volume	Direct expansion	Fossil fuel furnace
4. PSZ-HP	Packaged rooftop heat pump	Constant volume	Direct expansion	Electric heat pump
5. Packaged VAV with Reheat	Packaged rooftop VAV with reheat	VAV	Direct expansion	Hot-water fossil fuel boiler
6. Packaged VAV with PFP Boxes	Packaged rooftop VAV with parallel fan power boxes and reheat	VAV	Direct expansion	Electric resistance
7. VAV with Reheat	VAV with reheat	VAV	Chilled water	Hot-water fossil fuel boiler
8. VAV with PFP Boxes	VAV with parallel fan-powered boxes and reheat	VAV	Chilled water	Electric resistance
9. Heating and Ventilation	Warm air furnace, gas fired	Constant volume	None	Fossil fuel furnace
10. Heating and Ventilation	Warm air furnace, electric	Constant volume	None	Electric resistance

11. SZ–VAV	Single-zone VAV	VAV	Chilled water	See note 2.
12. SZ-CV-HW	Single zone	Constant volume	Chilled water	Hot-water fossil fuel boiler
13. SZ-CV-ER	Single zone	Constant volume	Chilled water	Electric resistance

Notes:

1. For purchased chilled water and purchased heat, see G3.1.1.3.

2. ~~Where the proposed design heating source is electric or other~~ For Climate Zones 0 – 3a, the heating type shall be electric resistance. ~~Where the proposed design heating source is fossil fuel, fossil/electric hybrid, or purchased heat,~~ For all other Climate Zones the heating type shall be hot-water fossil fuel boiler.

BSR/ASHRAE/IES Addendum ck
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum ck to Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

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BSR/ASHRAE/IES Addendum vk to ANSI/ASHRAE/IES Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

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FOREWORD

This addendum addresses three (3) updates as follows:

1. ***A change to control set point for the cooling tower to better scale with its climate.***
2. ***Clarify the operation of the condenser water pump as a constant volume pump***
3. ***Modifies the exception for pump W/gpm for water side economizer by changing the increased power of 5 W/GPM to 3 W/GPM***

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Addendum ck to 90.1-2013

Revise the Standard as follows (IP and SI Units)

G3.1.4.11 Heat Rejection (Systems 7, 8, 11, and 12). The heat rejection device shall be an axial fan open circuit cooling tower with variable-speed fan control and shall meet the performance requirements of Table 6.8.1-7. Condenser water design supply temperature shall be calculated using the cooling tower approach to the 0.4% evaporation design wetbulb temperature as generated by the formula below, with a design temperature rise of 10°F.

$\text{Approach}_{10°F\ \text{Range}} = 25.72 - (0.24 \times \text{WB})$

where WB is the 0.4% evaporation design wet-bulb temperature in °F; valid for wet bulbs from 55°F to 90°F.

The tower shall be controlled to maintain a leaving water temperature where weather permits per the table below, floating up to the design leaving water temperature for the cooling tower.

climate zone	leaving water temperature
5B, 5C, 6B, 8	65°F
0B, 1B, 2B, 3B, 3C, 4B, 4C, 5A, 6A, 7	70°F
3A,4A	75°F
0A, 1A, 2A	80°F

~~70°F leaving water temperature where weather permits, floating up to leaving water temperature at design conditions~~. The baseline building design condenser-water pump power shall be 19 W/gpm and modeled as constant volume. For computer room systems using System 11 with an integrated water-side economizer, the baseline building design condenser water pump power shall be increased 3 W/gpm for flow associated with the water-side economizer. Each chiller shall be modeled with separate condenser water and chilled-water pumps interlocked to operate with the associated chiller.

BSR/ASHRAE/IES Addendum *du*
to ANSI/ASHRAE/IES Standard 90.1-2010

Public Review Draft

Proposed Addendum *du* to Standard 90.1-2010, *Energy Standard for Buildings Except Low-Rise Residential Buildings*

Second Public Review (September 2015)
(Draft shows Proposed Changes to Previous Addendum)

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

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FOREWORD

This addendum requires water-side economizers for non-fan chilled water systems such as radiant cooling or passive chilled beam systems and for active chilled beam systems ***except*** *where capacity of those systems is:*

- *less than 1,000,000 Btu/h [85 tons] (295 kW) in climate zones 0, 1b, and 2 through 4;*
- *less than 1,400,000 Btu/h [115 tons] (410 kW) in climate zones 5 through 8; or*
- *any size in climate zone 1a.*

Cost-effectiveness: An economic analysis found the addition of water economizers to chilled water systems to be cost effective for the cooling capacities required in the proposal except in climate zone 1a.

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Addendum du to 90.1-2010

Revise the Standard as follows (IP & SI Units):

6.5.1 Economizers. Each cooling system ~~that has a fan~~ shall include either an *air* or *water economizer* meeting the requirements of Sections 6.5.1.1 through 6.5.1.4.

Exceptions: Economizers are not required for the systems listed below.

1. Individual fan-cooling units with a supply capacity less than the minimum listed in Table 6.5.1-1 for comfort cooling applications or Table 6.5.1-2 for *computer room applications*.
2. Chilled-water cooling systems without a fan or that use induced air flow where the total capacity of these systems is less than 1,000,000 Btu/h (295 kW) in climate zones 0, 1b, and 2 through 4; less than 1,400,000 Btu/h (410 kW) in climate zones 5 through 8; or any size in climate zone 1a.

[Renumber existing exceptions 2 through 11]

Public Review Draft

Proposed Addendum i to Standard 189.1-2014

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (September 2015)
(Draft Shows Proposed Changes to Current Standard)

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FOREWORD

This addendum reorganizes the roof heat island mitigation section and adds new provisions for vegetated terrace and roofing systems relative to plant selection, growing medium, roof membrane protection, and clearances. In addition, provisions for the operation and maintenance of vegetated roofs have been added to Section 10.

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 i to 189.1-2014

Revise Section 5.3.5.3 as follows:

5.3.5.3 *Roofs*. This section applies to the building and covered parking *roof* surfaces for *building projects* in *Climate Zones* 1, 2, and 3. A minimum of 75% of the ~~entire~~ *roof* surface ~~not used for *roof* penetrations and associated equipment; *on-site renewable energy systems*, such as photovoltaics or solar thermal energy collectors, including necessary *space* between rows of panels or collectors; portions of the *roof* used to capture heat for building energy technologies; rooftop decks or walkways; or vegetated (green) roofing systems~~ shall be covered with products that

a. have a minimum three-year-aged *SRI* of 64 for a low-sloped *roof* in accordance with Section 5.3.5.4. A low-sloped *roof* has a slope of less than or equal to 2:12.
b. have a minimum three-year-aged *SRI* of 15 for a steep-sloped *roof* in accordance with Section 5.3.5.4. A steep-sloped *roof* has a slope of more than 2:12.

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

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

Exceptions to 5.3.5.3:

1. *Building projects* where an annual energy analysis simulation demonstrates that the total annual building energy cost and total annual *CO2e*, as calculated in accordance with

Sections 7.5.2 and 7.5.3, are both a minimum of 2% less for the proposed *roof* than for a *roof* material complying with the SRI requirements of Section 5.3.5.3~~(a)~~.

2. *Roofs* used to shade or cover parking and *roofs* over *semiheated spaces*, provided that they have a minimum initial *SRI* of 29. A default *SRI* value of 35 for new concrete without added color pigment is allowed to be used instead of measurements.

Add new Section 5.3.5.5 as follows:

5.3.5.5 Vegetated terrace and roofing systems. Vegetated terrace and roofing systems, where provided in accordance with Section 5.3.5.3, shall comply with the following:

1. All plantings shall be capable of withstanding the micro climate conditions of the vegetated area including, but not limited to, wind, precipitation and temperature.. Plants shall be selected and placed to provide foliage coverage of not less than 50 percent of designed area of vegetation within two years of the final approval by the AHJ. Construction documents shall be submitted that show the planting location and anticipated two-year foliage coverage of the plantings. Duplicate coverage shall not be credited where multiple plants cover the same area. *Invasive plants* shall not be planted.
2. The growing medium shall be designed for the physical conditions and local climate to support the plants selected. The planting design shall include measures to protect the growing medium until the plants are established. The maximum wet weight and water holding capacity of a growing medium shall be determined in accordance with ASTM E 2399.
3. Roof penetrations, changes in elevation, parapet walls and roof edges shall be provided with a clearance to vegetation of not less than 6 feet (1.8 m). Non-vegetated clearances shall be provided in accordance with Section 317 of the International Fire Code.
4. Plantings shall be capable of maintaining the function of the vegetated roof or terrace as required by Section 10.3.2.1.1.
5. Irrigation of the vegetated roofs and terraces shall comply with Section 6.3.2.4.
6. Installation of plantings shall be in accordance with the roof covering manufacturer's installation instructions.

Revise Section 10.3.2.1.1 as follows:

10.3.2.1.1 *Site* Sustainability. A *site* sustainability portion of the plan for operation shall be developed and shall contain the following provisions:

a. ~~When~~ Where trees and vegetation are used to comply with the shade requirements of Section ~~5.3.4~~ 5.3.5, the plan for operation shall include the maintenance procedures needed to maintain healthy vegetation growth. The plan shall also outline the procedures for replacing any vegetation used to comply with the provisions in Section 5.
b. For *roof* surface materials selected to comply with the requirements of Section ~~5.3.4.3~~ 5.3.5.3, the plan for operation shall include the maintenance procedures for keeping the *roof* surfaces cleaned in accordance with manufacturer's recommendations.
c. For vegetated terrace and roofing systems selected to comply with Section 5.3.5.5, the plan for operation shall include the maintenance procedures needed to maintain healthy

vegetation growth and roof membrane system. The plan shall also outline the procedures for replacing any vegetation used to comply with the provisions in Section 5.

Add the following references to Chapter 11, ASTM International:

Reference	Title	Section
ASTM E 2399-11	Standard Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems	5.3.5.5

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-
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Table 5 – ABS pipe testing frequency

Test	Potable water	DWV	Sewer	DWV cellular core
burst pressure[1]	24 h	—	—	—
deflection load and crush resistance	—	—	—	—
pipe OD	2 h	2 h	2 h	2 h
pipe wall thickness	2 h	2 h	2 h	2 h
pipe out-of-roundness	2 h	2 h	2 h	2 h
flattening resistance	annually	24 h[2]	annually	24 h
impact @ 22.8 °C (73 °F)[2]	—	24 h	24 h	—
impact @ 0 °C (32 °F)[2]	—	—	—	24 h
joint tightness	—	—	annually	—
stiffness	—	24 h[2]	annually	24 h
sustained pressure	annually	—	—	—
tup puncture resistance	—	—	—	—
ash content	—	—	—	semi-annually
ash composition	—	—	—	semi-annually
product standard	ASTM F2806 ASTM F2969	ASTM D2661 CSA B181.1	ASTM D2751	ASTM F628

[1] If one material is continuously used in several machines or sizes, and when a steady-state operation is obtained on each machine, sample selection shall be from a different extruder each day, rotated in sequence among all machines or sizes.

[2]Testing not required for pipe listed only to CSA B181.1

ANSI/TIA-PN-920.110-B-D1
Draft 5.0
(For ANSI Default Ballot)

Telecommunications

Communications Products

Transmission Requirements for Digital Interface Communications Devices with Handsets

Formulated under the cognizance of TIA Subcommittee TR-41.3
Analog and Digital Wireline Terminals

With the approval of TIA Engineering Committee TR-41
Performance and Accessibility for Communications Products

This is a default ballot. Substantive changes to the previously balloted version of the document (an -R1 re-ballot) are shown as tracked changes in red. These changes are the only items subject to consideration in this default ballot.

Following is a summary of the changes:

1. In 5.3.7.1, information previously contained in a Note (i.e., that SFI testing is not required if the overall A-weighted noise level does not exceed 25 dBA) has been made into a requirement.
2. In 5.3.8.2, timings in the measurement method for Receive Noise – Active Channel have been adjusted to agree with the description of the parameter in 5.3.8.
3. In 5.4.5, the timings specified for the parameter Send Noise – With Stimulus have been adjusted to agree with those for Receive Noise – Active Channel in 5.3.8 (i.e., starting within 50 ms of the end of speech and lasting for 500 ms instead of starting within 100 ms and lasting for 1 s).
4. In 5.4.5.2, timings in the measurement method for Send Noise – With Stimulus have been adjusted to agree with the changes made to the description of the parameter in 5.4.5.

5.3.5.2 Measurement Method

1. Adjust the receive volume control to its maximum setting and apply the real speech signal at a level of -20 dBm0 at the RETP.
2. Measure the acoustic output at DRP using real time analysis and averaging over one complete sequence of the real speech signal.
3. Translate the measurement results at DRP to FF as described in B.1.
4. Over the frequency band of 100 to 8000 Hz determine the ASL in dBSPL for the resulting sound pressure level in accordance with Method B of ITU-T Recommendation P.56. Calculate the Conversational Gain as:

   Conversational Gain = (measured dBSPL level – 70 dBSPL) dB

5. Measure the receive SDNR as described in 5.3.9.2 for the range of 1/3rd octave band center frequencies identified in 5.3.9.1 at an input level of -10 dBm0. If the SDNR does not meet the requirement in 5.3.5.1, then repeat the test at successively lower volume control settings to determine if there is a setting that meets both the Conversational Gain and SDNR requirements in 5.3.5.1.
6. If the Conversational Gain exceeds 24 dB at the maximum volume control setting, cause the DUT to pass through a normal on-hook transition and remeasure the Conversational gain to determine if it has been reset to a value of 24 dB or less.

5.3.6 Receive Noise – Idle Channel

The receive idle channel noise of a digital communications device is the 5 second average noise level measured at the output of the handset receiver with the device receiving the digital quiet code.

5.3.6.1 Requirement

The acoustic noise level from the handset receiver at the Nominal Volume Control Setting shall not exceed 40 dBA.

5.3.6.2 Measurement Method

1. Apply a signal corresponding to a decoder quiet code at the digital interface.
2. Measure the acoustic output at the DRP of the HATS for a minimum period of 5 seconds over the frequency range of 100 to 8000 Hz.
3. Translate the DRP measurement result to the FF or DF.
4. Determine the A-weighted level of the results.

5.3.7 Receive Single Frequency Interference (SFI) – Idle Channel

Single frequencies and very narrow bands of noise can be perceived as tonal impairments depending on their level relative to the overall noise level. This test measures the weighted noise level characteristics in narrow bands of 30 Hz and compares them to the overall weighted receive noise level.

5.3.7.1 Requirement

1. If the overall A-weighted receive noise level measured in 5.3.6 does not exceed 25 dBA, SFI testing is not required.
2. Otherwise, ~~T~~the receive A-weighted single frequency interference shall be 10 dB quieter than the overall A-weighted receive noise.

~~NOTE: If the overall A-weighted receive noise level measured in 5.3.6 does not exceed 25 dBA, SFI testing is not required.~~

5.3.7.2 Measurement Method

1. Apply a signal corresponding to a decoder quiet code at the digital interface.

2. Measure the acoustic output at the DRP of the HATS with a selective voltmeter or spectrum analyzer having an effective bandwidth of 30 Hz over the frequency range of 100 to 8000 Hz.
3. If FFT analysis is used, then "Flat Top" windowing shall be employed.
4. Translate the DRP measurement result to the FF or DF.
5. Apply A-weighting and determine the largest A-weighted SFI level.
6. Compare the largest A-weighted SFI level to the overall A-weighted receive noise level.

5.3.8 Receive Noise – Active Channel

The receive active channel noise of a digital communications device is the 500 ms average noise level measured at the output of the handset receiver beginning no more than 50 ms after the end of speech.

5.3.8.1 Requirement

The active channel acoustic noise level from the handset receiver at the Nominal Volume Control Setting shall not exceed 40 dBA.

5.3.8.2 Measurement Method

1. Apply the real speech signal at a level of -20 dBm0 at the RETP.
2. Within ~~100ms~~ 50 ms after the end of real speech signal, measure the acoustic output at the DRP of the HATS over a period of ~~1 second~~500 ms over the frequency range of 100 to 8000 Hz.
3. Translate the DRP measurement result to the FF or DF.
4. Apply the A-weighting curve and determine the A-weighted level of the results.

5.3.9 Receive Distortion and Noise

Receive distortion is specified in this standard in terms of Signal-to-Distortion-and-Noise Ratio (SDNR) using a Pulsed Noise test signal (PN-SDNR). PN-SDNR is the ratio of the signal power to the total A-weighted distortion and noise power of the signal output expressed in dB. It is measured using a pulsed 1/3rd octave pink noise input signal as described in Annex E.

5.3.9.1 Requirement

1. The ratio of the signal power to the total A-weighted distortion and noise power shall be greater than or equal to 26 dB when tested over the range of 1/3rd octave band center frequencies specified below:
    a. Wideband handsets and dual mode handsets in the wideband mode:
    Each 1/3rd octave band center frequency from 250 Hz to 6300 Hz.
    b. Dual mode handsets in the narrowband mode:
    Each 1/3rd octave band center frequency from 250 Hz to 3150 Hz
    c. Narrowband only handsets:
    Each 1/3rd octave band center frequency from 400 Hz to 3150 Hz.
2. It is recommended that the receive distortion and noise performance also be confirmed using subjective listening tests.

5.3.9.2 Measurement Method

1. Receive distortion and noise is measured using the PN-SDNR test procedures described in Annex E.
2. With the receive volume control at its nominal setting, apply the pulsed noise test stimulus using a -10 dBm0 input level at the RETP for each of the relevant 1/3rd octave center frequencies in Table E.1 based on the wideband or narrowband handset operating mode as discussed in 5.4.6.1.
3. Measure the acoustic output signal due to the stimulus and the notched distortion and noise components at the DRP of the HATS as described in Annex E.

5.4.3 Send Noise – Without Stimulus

The send noise without stimulus of a digital communications device is the 5 second average noise level at the digital send output with the device handset transmitter isolated from sound input and mechanical disturbances.

5.4.3.1 Requirement

The overall send noise shall be less than or equal to -68 dBm0, A-weighted.

5.4.3.2 Measurement Method

In a quiet environment (ambient noise less than 30 dBA), free of mechanical disturbances, measure the A-weighted, 5 second average, noise level at the SETP over the frequency range from 100 to 8000 Hz for wideband measurements, or over the frequency range from 100 to 4000 Hz for narrowband measurements.

5.4.4 Send Single Frequency Interference (SFI) – Idle Channel

Single frequencies and very narrow bands of noise can be perceived as tonal impairments depending on their level relative to the overall noise level. This test measures the weighted noise level characteristics in narrow 30 Hz bands.

5.4.4.1 Requirement

The A-weighted send single frequency interference shall be less than -78 dBm0.

5.4.4.2 Measurement Method

1. In a quiet environment (ambient noise less than 30 dBA), free of mechanical disturbances, measure the A-weighted noise level at the SETP with an effective bandwidth of 30 Hz, over the frequency range from 100 to 8000 Hz for wideband measurements, or over the frequency range from 100 to 4000 Hz for narrowband measurements.
2. If FFT analysis is used, then "Flat Top" windowing shall be employed.
3. The largest value measured is the single frequency interference value.

5.4.5 Send Noise – With Stimulus

The send noise with stimulus of a digital communications device is the ~~1 second~~500 ms average noise level measured at the digital send output beginning no more than 50 ms after the end of speech~~immediately following the transmission of a speech signal~~.

5.4.5.1 Requirement

The overall send noise shall be less than or equal to -68 dBm0, A-weighted.

5.4.5.2 Measurement Method

1. Apply the 12-second real speech test signal at a level of -4.7 dBPa at MRP.
2. Within ~~100ms~~ 50 ms after the end of real speech signal, measure the digital send output over a period of ~~1 second~~500 ms over the frequency range of 100 to 8000 Hz for wideband measurements, or over the frequency range from 100 to 4000 Hz for narrowband measurements.
3. Determine the A-weighted level of the results.

5.4.6 Send Distortion and Noise

Send distortion is specified in this standard in terms of Signal-to-Distortion-and-Noise Ratio (SDNR) using a Pulsed Noise test signal (PN-SDNR). PN-SDNR is the ratio of the signal power to the total A-weighted distortion and noise power of the signal output expressed in dB. It is measured using a pulsed 1/3rd octave pink noise input signal as described in Annex E.

BSR/UL 3703, Standard for Safety for Solar Trackers

1. Correction of a reference in paragraph 16.2 and the deletion of Section 69, Emergency Movement of Platform Without Drive Power Test.

16.2 All uninsulated metal parts of the enclosure, motor frames and mounting brackets, component mounting brackets, capacitors, and other electrical components that involve a risk of electric shock or electrical energy-high current levels shall be bonded for grounding where they are accessible for contact by the user or inadvertent contact by a serviceman. The tracker is to be evaluated for bonding using the Standard for Mounting Systems, Mounting Devices, Clamping/Retention Devices, and Ground Lugs for Use With Flat-Plate Photovoltaic Modules and Panels, UL 2703.

Exception: A metal part as described in (a) - ~~(g)~~ (f) is not required to be bonded for grounding:

a) An adhesive-attached metal foil marking that is located on the outside of an enclosure or cabinet and isolated from electrical components or wiring by grounded metal parts so that they do not become energized.

b) An isolated metal part, such as a magnet frame and an armature.

c) Within an enclosure, a panel or cover that does not enclose uninsulated live parts; and wiring is positively separated from the panel or cover so that it is unable to become energized.

d) Within an enclosure, a panel or cover that is secured in place and that is insulated from electrical components and wiring by an insulating barrier of vulcanized fiber, varnished cloth, phenolic composition, or similar material not less than 0.8 mm (1/32 inch) thick.

e) Within an enclosure, an isolated metal part that is mounted on a printed wiring board - such as transformer and choke cores and heat sinks.

f) Within an enclosure, a capacitor sleeved with insulating tubing complying with 20.2.2.

~~**69 Emergency Movement of Platform Without Drive Power Test**~~

~~69.1 Each axis of the platform shall be tested to determine if it is capable of emergency movement without drive power.~~

BSR/UL 817, Standard for Cord Sets and Power-Supply Cords

PROPOSAL

1. Addition of requirements related to overcurrent protection on 18 and 17 AWG extension cord sets

10.7.3.1.4 All extension cord sets employing flexible cord incorporating 18 or 17 AWG conductors shall be provided with overcurrent protection (short circuit and overload protection) rated equal to or less than the ampacity of the flexible cord.

2. Addition of requirements to cover a construction of a general-use cord set employing a joint

10.7.2.2 Joints for use on extension ~~outdoor use~~ cord sets

10.7.2.2.1 An extension cord set with more than one single-outlet load fitting may have a joint in the flexible cord with the cord branching to two cords, each terminating in a single-outlet load fitting. See Fig 10.5 for typical construction.

10.7.2.2.2 An extension cord set employing a joint shall employ SJ or equivalent cord.

10.7.2.2.3 A joint between two flexible cords shall have a minimum insulating-body thickness of 3/32 inch (2.4 mm) covering all live parts.

10.7.2.2.4 The thickness mentioned in 10.7.2.2.9 is to be measured from any part of the live contacts and uninsulated flexible-cord conductors (conductors from which the flexible-cord insulation has been removed) to the nearest point on the outer surface of the insulating body.

10.7.2.2.5 An extension cord set with more than one single-outlet load fitting may have a joint in the flexible cord and shall be marked in accordance with 23.18.

10.7.2.2.6~~10.7.2.2.1~~ An outdoor-use extension cord set may have a joint in the flexible cord with the cord branching to two cords, each terminating in a load fitting provided with a maximum of three outlets, or to three cords, each terminating in a load fitting

provided with a maximum of two outlets. In either case, the total number of outlets provided on the cord set shall not be more than six.

10.7.2.2.7~~10.7.2.2.2~~ The resistance of the joint insulation to sunlight and mechanical abuse for outdoor use extension cord sets shall be at least equal to that of the interconnecting flexible cord. Molded-on joint insulation shall be compatible with the material used in the jacket of the flexible cord and shall adhere tightly to the jacket so as to exclude moisture.

10.7.2.2.8~~10.7.2.2.3~~ A joint between two flexible cords in an outdoor-use extension cord set shall have a minimum insulating-body thickness of 3/32 inch (2.4 mm) covering all live parts.

10.7.2.2.9~~10.7.2.2.4~~ The thickness mentioned in 10.7.2.2.3 is to be measured from any part of the live contacts and uninsulated flexible-cord conductors (conductors from which the flexible-cord insulation has been removed) to the nearest point on the outer surface of the insulating body.

10.7.2.2.10~~10.7.2.2.5~~ Insulation of neoprene, polyvinyl chloride, or butyl rubber is acceptable provided its adhesion to the cord jacket complies with 11.11. Joint insulation of other material may be investigated to determine its acceptability.

10.7.2.2.11~~10.7.2.2.6~~ The overall length of a cord set with a joint shall be determined from the sum of the lengths of the main cord (from plug to joint) plus the longest length of flexible cord from the joint to the cord connector.

21.1.11 A general-use cord set employing in-line cord connectors (see 10.7.2.1.13) or a joint (see 10.7.2.2.1) shall be marked on a tag permanently attached to the cord set, with the following or equivalent wording following the word "WARNING":

a) "WARNING - To reduce the risk of electric shock, this product is for indoor use only. Not for use on construction sites or other similar locations." Alternately, this marking may be added to the marking tag in 21.3.1, and

b) Within 3 inches (76 mm) of each cord connector: "WARNING - To reduce the risk of fire, the total amperes drawn from all the cord connectors shall not exceed ____ Amps". The blank shall be filled in with the maximum current rating of the ~~outdoor~~general-use cord set.

Lettering shall be a minimum of 1/16 inch (1.6 mm) high. The markings and tags shall comply with the permanence requirements of 21.3.1.

BSR/UL 1203, Standard for Safety for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations

1. Revisions to 10.2.1

PROPOSAL

10.2.1 When a part that is not intended to be removed after assembly, and that is not required to be opened to install or service the equipment is ~~sealed~~ cemented with a ~~sealing~~ compound, the ~~sealing~~ compound shall comply with the following as applicable:

a) Epoxy and RTV silicone rubber shall ~~R~~ resist solvent action in compliance with Section 34, Tests on Sealing Compounds;

b) RTV silicone rubber shall resist aging in accordance with the air-oven aging test method found in Section 41.3 ~~Resist moisture in compliance with Section 89, High Humidity Tests~~; ~~and~~

c) Plaster-based cements shall resist moisture in compliance with Section 89, High Humidity Tests; and ~~Comply with the requirements of 25.2, without loosening or cracking, or showing other signs of deterioration.~~

d) Comply with the requirements of 25.2, without loosening or cracking, or showing other signs of deterioration.

2. Revisions to 15.1 to align UL 1203 with the current ferrous metal electrical enclosure corrosion protection requirements in UL 50E

PROPOSAL

15.1 All enclosure of ferrous-metal ~~parts~~ other than stainless steel shall comply with the applicable requirements for indoor corrosion protection as is found in the Standard for Enclosures for Electrical Equipment, Environmental Considerations, UL 50E,~~be protected against corrosion, An enclosure of ferrous metal other than stainless steel shall be subjected to Section 24, Rust-Resistance Test~~ except at joint surfaces and conduit threads~~, for example, by zinc or cadmium coating, plating, enameling, painting, varnishing, or lacquering~~. Joint surfaces and conduit threads are not prohibited from being electroplated.

BSR/UL 2586, Standard for Safety for Hose Nozzle Valves

1. Revision of requirements for automatic hose nozzle valves equipped with an integral hold open or latching device

PROPOSAL

4.2.2 Automatic hose nozzle valves equipped with an integral hold open or latching device shall be so designed that, if left in the latched position after the flow has been stopped by means other than the automatic feature of the hose nozzle, it shall automatically unlatch when it is returned to the dispenser, See Automatic hose nozzle valve, 15.1.2.

NOTE: This includes hose nozzle valves that close with a no pressure/no flow mechanism, as well as interlock hose nozzles valves that unlatch when removed from car fill pipe or when hung on the dispenser.

Exception: Optional for automatic hose nozzle valves used with electric transfer pumps used in agriculture, construction and commercial fuel transfer.