ANSI STANDARDS ACTION

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Contents

American National Standards

Call for comment on proposals listed

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

Ordering Instructions for "Call-for-Comment" Listings

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

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

* Standard for consumer products

ISSN 0038-9633

Public Notice of the Development of a Provisional Amendment by the Association of Pool & Spa Professionals (APSP) in accordance with ANNEX B.1.1 of ANSI *Essential Requirements* (www.ansi.org/essentialrequirements)

In accordance with Annex B *Procedures for the Development of a Provisional American National Standard (ANS) or a Provisional Amendment to an ANS* of the *ANSI Essential Requirements*, the Association of Pool & Spa Professionals (APSP) is preparing a Provisional Amendment to address the Bromine levels in public pools and spas.

APSP intends to ballot section 5.3.1 Pools and 5.3.2 Spas of the ANSI/APSP-11 2009, American National Standard for Water Quality in Public Pools and Spas which relate to Bromine (Br):

5.3 Bromine

5.3.1 Pools. A minimum bromine residual of 1.0 ppm (expressed as Br_2) shall be maintained at all times and in all areas of the pool. The bromine concentration shall not exceed the maximum indicated on the label of the EPA-registered product when the pool is open to the public.

5.3.2 Spas. A minimum bromine residual of 2.0 ppm (expressed as Br_2) shall be maintained at all times and in all areas of the spa. The bromine concentration shall not exceed the maximum indicated on the label of the EPA-registered product when the spa is open to the public.

The following section of this standard remains unchanged:

5.3.3 Operators shall refer to the manufacturer's product label for specific use concentrations since allowable concentrations can vary depending upon which brominating compound is used.

The circumstances that warrant the issuance of this Provisional Amendment relate to compliance with the U.S. Environmental Protection Agency (EPA) recommended levels of Bromine as part of registered sanitizers and systems which is ever changing.

As further background information, a quick survey of registered EPA products at the US EPA's Pesticide Product Label System web site, http://ofmpub.epa.gov/apex/pesticides/f?p=PPLS:1, revealed the following sampling of upper limits:

EPA Reg. No.	Product Type	Date	Av. Br. Max.
7616-81	98% BCDMH, "Floating brominator"	2008	6 PPM
6836-211	90/10 blend of BCDMH & DBDMH	2011	6 PPM
69470-34	85/15 blend of dichlor & NaBr	2014	7 PPM
8622-49	NaBr with separate oxidizer	2013	(7, 3)*
8622-69	NaBr with electrolytic cells	2015	8 PPM†

* No fixed limit. Initial pool treatment would be ~7 PPM of available bromine, but bromide could accumulate to higher levels with subsequent treatment and be oxidized by chlorine. At a 4.0 PPM chlorine limit, bromine could reach 9.0 PPM. For spas, an upper limit of 3 PPM is suggested, but wording is vague enough to allow wide variation.

† The product is intended only for indoor and covered outdoor spas. If the bromine level exceeds 8 PPM, the spa is to be turned off until the bromine level drops below 5 PPM.

Once the Provisional Amendment is approved by APSP, the current ANSI/APSP-11 2009 will be updated to reflect the correct information in 5.3 relating to maximum Bromine levels. APSP agrees to comply with all of the requirements in Annex B of the ANSI Essential Requirements related to a Provisional Amendment.

The Provisional Amendment is intended to ensure the prompt dissemination of new health and safety criteria. Following approval, copies of the ANSI/APSP-11 2009 standard, including the Provisional Amendment, may be obtained from APSP Headquarters, 2111 Eisenhower Avenue, Suite 500, Alexandria, VA 22314. Contact APSP Director of Standards Promotion and Adoption Susan J. Hilaski at 703-838-0083 x150 or e-mail shilaski@apsp.org.

Comment Deadline: April 12, 2015

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

Addenda

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

This addendum revises Section 9.9.2, Units, to require new refrigerant. Applicants must submit Refrigerant Designation Data required for Section 9.5.2 in both SI and Inch-Pound (IP) units.

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 p to ANSI/ASHRAE Standard 34, Designation and Safety Classification of Refrigerants (addenda to ANSI/ASHRAE Standard 34-2013)

This addendum adds the zeotropic refrigerant blend R-453A, 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 34,000 ppm v/v.

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

Addenda

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

This addendum adds the zeotropic refrigerant blend R-449B, 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 850 ppm v/v. The recommended ATEL is 100,000 ppm v/v.

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

Addenda

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

This addendum adds the zeotropic refrigerant blend R-1336mzz(Z), to Table 4-1, Table D-1, and Table E-1. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 500 ppm v/v. The recommended ATEL is 13,000 ppm v/v.

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

Addenda

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

This addendum adds the zeotropic refrigerant blend R-454A, to Table 4-2 and Table D-2. The recommended flammability classification 2L is based on an LFL of 6.3 vol. %, a heat of combustion of 10,040 kJ/kg (4,316 BTU/lb), and a burning velocity of 2.4 cm/s. The recommended toxicity classification A is based on an adopted OEL of 690 ppm v/v. The recommended ATEL is 140,000 ppm v/v.

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

Addenda

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

This addendum adds the zeotropic refrigerant blend R-454B, to Table 4-2 and Table D-2. The recommended flammability classification 2L is based on an LFL of 7.7 vol. %, a heat of combustion of 10,045 kJ/kg (4,391 BTU/lb), and a burning velocity of 5.2 cm/s. The recommended toxicity classification A is based on an adopted OEL of 850 ppm v/v. The recommended ATEL is 170,000 ppm v/v.

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

Addenda

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

This proposal in response to comments received on the first public review is intended to ensure that it is clear that all lighting including night lights shall be turned off when the space is unoccupied with an allowance for security and safety reasons.

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 aj to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

Relief and return fans are not well addressed by the Standard. It is possible to have fans that have on/off cycling control that results in very poor building pressure control: Before the fan comes on, building pressure can be excessive, and once it comes on, the building can be pulled negative. This can cause building operators to disable the economizer to avoid these problems. The cost of adding modulating building pressure control is relatively small: The motor can be an ECM or have a VFD, and a building pressure sensor is inexpensive.

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 al to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal establishes air leakage criteria for metal coiling doors where previously there were no criteria.

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

Addenda

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

This proposal (1) increases the parking garage lighting reduction in response to no occupancy from 30% to 50%, (2) specifies a 50% reduction in lighting power in response to the presence of daylighting, and (3) removes a duplicate exemption.

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

Addenda

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

This proposal removes mandatory local lighting control from restrooms and stairwells. Local control can still be installed when desired.

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 ao to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum addresses how adiabatic and non-adiabatic humidification is handled in the baseline building energy model in 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 ap to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum places the scope limitation of 5 hp fans in DX cooling controls so that it applies to fan horsepower limitation and VAV reset requirements, but not to fan airflow control or fractional horsepower fan motor efficiency, and clarifies that VAV setpoint reset is required only for multiple-zone VAV systems.

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 ar to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum replaces the term “effectiveness” with either “enthalpy recovery ratio” and “sensible energy recovery ratio” where they apply, to make the terminology consistent with other standards.

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 as to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal would require activity sensing controls for parking lot lighting with low mounting heights (below 24 feet) and luminaire-rated wattage greater than 78 Watts. These controls would reduce lighting power by at least 50% per luminaire when no activity is detected in the zone served by the lighting.

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 at to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum provides clarity for the calibration of daylighting controls by highlighting that having a person in the field of view of the sensor during the calibration would adversely affect the process. Various types of calibration systems exist.

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 au to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum provides more detail for the baseline model with regard to hot water pumps and chilled water pumps based on changes in Addendum ak to 90.1-2013.

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 av to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum generally adds the phrase “configured to” where”'capable of” is used related to HVAC control requirements.

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 aw to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This addendum updates the Exhaust Air Energy Recovery Exceptions.

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 L to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This public review draft is in response to comments received on the first public review. It moves the whole building air leakage testing into existing Air Leakage section and adds clearer guidance on testing representative portions of very large buildings and adds a new exception for buildings unable to comply with the required air leakage rate. It also modifies the verification section to reference the relocated whole building air leakage testing now located in the existing Air Leakage Section of the Standard.

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 U to Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IESNA Standard 90.1-2013)

This proposal is in response to comments from the first public review which result in additional exceptions to be added in for the transfer air requirements in order to prevent mixing of air between spaces.

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

This Independent Substantive Change (ISC) is a modification to proposed addendum w in response to comments received on the first public review draft. This ISC adds a methodology for rating solar reflectance for the portion of the opaque wall that is glass spandrel and adjusts the minimum skylight criteria for Climate Zone 0 in response to comments received on the first public review.

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

This modification to the simplified building lighting approach is in response to comments received on the first public review. The control language in the interior table 9.3.1.1-1 for Parking Garage was re-ordered without any language change. In the exterior table 9.3.1.1-2 “Stairs and Ramps” was moved to its own row in the table for clarity without any change in the language, and “All other areas not listed” was also moved, without any language change, to its own row at the end of the table for clarity.

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.)

New Standard

BSR/ASHRAE Standard 188P-201x, Legionellosis: Risk Management for Building Water Systems (new standard)

The purpose of this document is to establish minimum legionellosis risk management requirements for building water systems. The standard is intended for use by owners and managers of human-occupied buildings, and those involved in the design, construction, installation, commissioning, operation, maintenance, and service of centralized building water systems and components.

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.)

Revision

BSR/ASHRAE/SMACNA Standard 126-201x, Method of Testing HVAC Air Ducts (revision of ANSI/ASHRAE/SMACNA Standard 126-2008)

This revision of Standard 126-2008 shall be used to determine the structural strength, dimensional stability, durability, and leakage characteristics of HVAC air ducts.

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

ATIS (Alliance for Telecommunications Industry Solutions)

New Standard

BSR/ATIS 1000013.v2-201x, Lawfully Authorized Electronic Surveillance (LAES) for Internet Access and Services, Version 2 (new standard)

Internet Access and Services can be obtained by establishing a subscription based arrangement. This standard provides capabilities to lawfully intercept communications of subscription-based Internet Access and Services arrangements.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Kerrianne Conn, (202) 434-8841, kconn@atis.org

AWWA (American Water Works Association)

Revision

BSR/AWWA C670-201x, Online Chlorine Analyzer Operation and Maintenance (revision of ANSI/AWWA C670-2009)

This standard describes online chlorine operation and maintenance (O&M) when the online chlorine analyzer is used in the treatment and monitoring of potable water, reclaimed water, or wastewater.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Paul Olson, (303) 347-3178, polson@awwa.org; vdavid@awwa.org

BICSI (Building Industry Consulting Service International)

New Standard

BSR/BICSI 006-201x, Distributed Antenna System (DAS) Design and Implementation Best Practices (new standard)

This standard provides and describes requirements, standards, and acceptable best practices for the design and installation of a distributed antenna system (DAS) used in wireless communication infrastructure.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Jeff Silveira, (813) 903-4712, jsilveira@bicsi.org

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

Revision

BSR/IAPMO Z1033-201x, Flexible PVC Hoses and Tubing for Pools, Hot Tubs, Spas, and Jetted Bathtubs (revision of ANSI/IAPMO Z1033-2010)

This Standard covers flexible PVC hoses and tubing for use on pools, hot tubs, spas, and jetted bathtubs and specifies requirements for materials, physical characteristics, performance tests, and markings. Flexible PVC hoses and tubing covered by this Standard are intended to be used on hot tub, spa, and jetted bathtub (a) water circulation systems; and (b) pneumatic systems.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Abraham Murra, (909) 472-4106, abraham.murra@IAPMOstandards.org

NSF (NSF International)

Revision

BSR/NSF 42-201x (i83r1), Drinking Water Treatment Units - Aesthetic Effects (revision of ANSI/NSF 42-2014)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of drinking water treatment systems that are designed to reduce specific aesthetic-related (non-health effects) contaminants in public or private water supplies. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827-5643, mleslie@nsf.org

NSF (NSF International)

Revision

BSR/NSF 44-201x (i38r1), Residential Cation Exchange Water Softeners (revision of ANSI/NSF 44-2014)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of residential cation exchange water softeners. This Standard also specifies the minimum product literature that manufacturers shall supply to authorized representatives and owners, as well as the minimum service-related obligations that manufacturers shall extend to owners.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827 -5643, mleslie@nsf.org

NSF (NSF International)

Revision

BSR/NSF 53-201x (i99r1), Drinking Water Treatment Units - Health Effects (revision of ANSI/NSF 53-2014)

It is the purpose of this Standard to establish minimum requirements for materials, design and construction, and performance of point-of-use and point-of-entry drinking water treatment systems that are designed to reduce specific health-related contaminants in public or private water supplies. Such systems include point-of-entry drinking water treatment systems used to treat all or part of the water at the inlet to a residential facility or a bottled water production facility, and includes the material and components used in these systems.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827 -5643, mleslie@nsf.org

NSF (NSF International)

Revision

BSR/NSF 55-201x (i40r1), Ultraviolet Microbiological Water Treatment Systems (revision of ANSI/NSF 55-2014)

The purpose of this Standard is to establish minimum requirements for the reduction of microorganisms using ultraviolet radiation (UV). UV water treatment systems covered by this Standard are intended for water that may be either microbiologically safe or microbiologically unsafe. This Standard also specifies the minimum product literature and labeling information that a manufacturer shall supply to authorized representatives and system owners, as well as the minimum service-related obligations that the manufacturer shall extend to system owners.

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Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827 -5643, mleslie@nsf.org

NSF (NSF International)

Revision

BSR/NSF 58-201x (i68r1), Reverse Osmosis Drinking Water Treatment Systems (revision of ANSI/NSF 58-2014)

The purpose of this Standard is to establish minimum requirements for materials, design and construction, and performance of reverse osmosis drinking water treatment systems. This Standard also specifies the minimum product literature that manufacturers shall supply to authorized representatives and owners, as well as the minimum service-related obligations that manufacturers shall extend to system owners.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827 -5643, mleslie@nsf.org

NSF (NSF International)

Revision

BSR/NSF 62-201x (i26r1), Drinking Water Distillation Systems (revision of ANSI/NSF 62-2014)

This standard establishes minimum materials, design and construction, and performance requirements for point-of-use and point-of-entry drinking water distillation systems and the components used in these systems. Distillation systems covered by this standard are designed to reduce specific chemical contaminants from potable drinking water supplies. Systems covered under this standard may also be designed to reduce microbiological contaminants, including bacteria, viruses, and cysts, from potable drinking water supplies. It is recognized that a system may be effective in controlling one or more of these contaminants, but systems are not required to control all.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Monica Leslie, (734) 827 -5643, mleslie@nsf.org

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 67-201X, Standard for Safety for Panelboards (Proposal dated 03 -13-15) (revision of ANSI/UL 67-2014a)

The following changes in requirements are being proposed: Revisions to Accessibility of Live Parts on Line Side of Service Disconnect for paragraphs 5.4.2 and 5.4.5.

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 1004-7-201X, Standard for Safety for Electronically Protected Motors (Proposal dated 3-13-15) (revision of ANSI/UL 1004-7-2012)

The following are proposed: (1) Remove requirement for abnormal switch requirements for electronically protected motors, and (2) Addition of reference to UL 1004-2 in test method for over-temperature protection.

Click here to view these changes in full

Send comments (with copy to psa@ansi.org) to: Jonette Herman, (919) 549 -1479, Jonette.A.Herman@ul.com

Comment Deadline: April 27, 2015

AGMA (American Gear Manufacturers Association)

Reaffirmation

BSR/AGMA 2111-A98 (R201x), Cylindrical Wormgearing Tolerance and Inspection Methods (Metric) (reaffirmation of ANSI/AGMA 2111-A98 (R2010))

This standard describes and defines variations that may occur in unassembled wormgearing. It displays measuring methods and practices, giving suitable warnings if a preferred probe cannot be used. The applicability of single- or double-flank composite testing is discussed, using a reference gear.

Single copy price: $74.00

Obtain an electronic copy from: tech@agma.org

Order from: Amir Aboutaleb, (703) 684-0211, tech@agma.org

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

AGMA (American Gear Manufacturers Association)

Reaffirmation

BSR/AGMA/AWEA 6006-A03-2004 (R201x), Standard for Design and Specifications of Gearboxes for Wind Turbines (reaffirmation of ANSI/AGMA/AWEA 6006-A03-2004 (R2010))

This standard is intended to apply to wind turbine gearboxes. It provides information for specifying, selecting, designing, manufacturing, procuring, operating, and maintaining reliable speed-increasing gearboxes for wind turbine generator system service.

Single copy price: $232.00

Obtain an electronic copy from: tech@agma.org

Order from: Amir Aboutaleb, (703) 684-0211, tech@agma.org

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

AMCA (Air Movement and Control Association)

Revision

BSR/AMCA 240-XX, Laboratory Methods of Testing Positive Pressure Ventilators for Aerodynamic Performance Rating (revision of ANSI/AMCA 240-2006)

This standard may be used as the basis for the test of a PPV when air is used as the test gas. Each test shall be limited to one PPV per test. A PPV tested in accordance with this standard shall be freestanding and without a ductwork connection to the test chamber, thereby allowing for the measurement of entrained airflow.

Single copy price: $5.00

Obtain an electronic copy from: amuledy@amca.org

Order from: Amanda Muledy, (847) 704-6295, amuledy@amca.org

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

API (American Petroleum Institute)

Reaffirmation

BSR/API MPMS Chapter 2.2C, 1st Edition-2002 (R201x), Calibration of Upright Cylindrical Tanks Using the Optical-Triangulation Method (reaffirmation of ANSI/API MPMS 2.2C-2002)

Describes the calibration of vertical cylindrical tanks by means of optical triangulation using theodolites. The method is an alternative to other methods such as strapping (MPMS Chapter 2.2A) and the optical-reference-line method (MPMS Chapter 2.2B). This edition of Chapter 2.2C is the modified national adoption of ISO 7507-3:1993.

Single copy price: $82.00

Obtain an electronic copy from: jonesj@api.org

Order from: Jennifer Jones, (202) 682-8073, jonesj@api.org

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

API (American Petroleum Institute)

Reaffirmation

BSR/API MPMS Chapter 2.2E, 1st Edition-2009 (R201x), Petroleum and Liquid Petroleum Products - Calibration of Horizontal Cylindrical Tanks - Part 1: Manual Methods (reaffirmation of ANSI/API MPMS 2.2E-2004 (R2009))

Specifies manual methods for the calibration of nominally horizontal cylindrical tanks, installed at a fixed location. It is applicable to horizontal tanks up to 4 m (13 ft) in diameter and 30 m (100 ft) in length. The methods are applicable to insulated and non-insulated tanks, either when they are above-ground or underground. The methods are applicable to pressurized tanks, and to both knuckle-dish-end and flat-end cylindrical tanks as well as elliptical and spherical head tanks. This Chapter is applicable to tanks inclined by up to 10% from the horizontal provided a correction is applied for the measured tilt.

Single copy price: $87.00

Obtain an electronic copy from: jonesj@api.org

Order from: Jennifer Jones, (202) 682-8073, jonesj@api.org

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

API (American Petroleum Institute)

Reaffirmation

BSR/API MPMS Chapter 2.2F, 1st Edition-2009 (R201x), Petroleum and Liquid Petroleum Products - Calibration of Horizontal Cylindrical Tanks - Part 2: Internal Electro-optical Distance-Ranging Method (reaffirmation of ANSI/API MPMS 2.2F-2004 (R2009))

Specifies a method for the calibration of horizontal cylindrical tanks having diameters greater than 2 m (6 ft) by means of internal measurements using an electro-optical distance-ranging instrument, and for the subsequent compilation of tank-capacity tables.

Single copy price: $76.00

Obtain an electronic copy from: jonesj@api.org

Order from: Jennifer Jones, (202) 682-8073, jonesj@api.org

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

API (American Petroleum Institute)

Reaffirmation

BSR/API MPMS Chapter 5.6, 1st Edition-2007 (R201x), Measurement of Liquid Hydrocarbons by Coriolis Meters (reaffirmation of ANSI/API MPMS Ch. 5.6-2002 (R2007))

Describes methods for achieving custody transfer levels of accuracy when a Coriolis meter is used to measure liquid hydrocarbons. Topics covered include: applicable API standards used in the operation of Coriolis meters; proving and verification using both mass- and volume-based methods; installation, operation, and maintenance. Both mass and volume-based calculation procedures for proving and quantity.

Single copy price: $138.00

Obtain an electronic copy from: jonesj@api.org

Order from: Jennifer Jones, (202) 682-8073, jonesj@api.org

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

ASABE (American Society of Agricultural and Biological Engineers)

Revision

BSR/ASAE S343.4 MONYEAR-201x, Terminology for Combines and Grain Harvesting (revision and redesignation of ANSI/ASAE S343.3-1990 (R2013))

Establishes terminology pertinent to grain combine design and performance. It is intended to improve communication among engineers and researchers and to provide a basis for comparative listing of machine specifications.

Single copy price: $55.00

Obtain an electronic copy from: vangilder@asabe.org

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

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

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

Addenda

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

This addendum revises the fenestration prescriptive criteria in Tables 5.5-0 through 5.5-8.

Single copy price: $35.00

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

Order from: standards.section@ashrae.org

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

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

Addenda

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

This addendum updates footnotes in Tables 6.8.1-1 and 6.8.1-2 and 6.8.1-5 for the requirements for residential air conditioners and heat pumps and furnaces that are covered by US Department of Energy.

Single copy price: $35.00

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

Order from: standards.section@ashrae.org

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

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME NUM-1-201x, Rules for Construction of Cranes, Monorails, and Hoists (with Bridge or Trolley or Hoist of the Underhung Type) (revision of ANSI/ASME NUM-1-2009)

This Standard covers underhung cranes, top-running bridge and gantry cranes with underhung trolleys, traveling wall cranes, jib cranes, monorail systems, overhead hoists, and hoists with integral trolleys used in nuclear facilities. All of the above cranes, whether single or multiple girder, are covered by this Standard with the exception of multiple-girder cranes with both top-running bridge and trolley, which are covered by ASME NOG-1.

Single copy price: Free

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

Order from: Mayra Santiago, (212) 591-8521, ansibox@asme.org

Send comments (with copy to psa@ansi.org) to: Thomas Schellens, (212) 591-8077, schellenst@asme.org

ATIS (Alliance for Telecommunications Industry Solutions)

New Standard

BSR/ATIS 0600015.09-201x, Energy Efficiency for Telecommunication Equipment: Methodology for Measurement and Reporting of Base Station Metrics (new standard)

The Base Station Input Power Metric is reported in Watts and is based on radio resource usage. The metric is obtained with the base station placed in a static operating state and does not take into account changing environmental conditions such as mobility, fading, and traffic demands.

Single copy price: $145.00

Obtain an electronic copy from: kconn@atis.org

Order from: Kerrianne Conn, (202) 434-8841, kconn@atis.org

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

CSA (CSA Group)

Reaffirmation

BSR Z21.12-1990, Z21.12a-1993, Z21.12b-1994 (R201x), Standard for Draft Hoods (reaffirmation of ANSI Z21.12-1990 (R2010), ANSI Z21.12a-1993 (R2010), and ANSI Z21.12b-1994 (R2010))

Details test and examination criteria for replacement draft hoods for use on installed appliances using natural, manufactured and mixed gases, liquefied petroleum gases and LP gas-air mixtures, and for use on appliances that have been converted from other fuels to the above gases. They are suitable for use with gas appliances required to be installed with a draft hood as specified in the National Fuel Gas Code, ANSI Z223.1, in the event the appliance designs do not incorporate draft hoods.

Single copy price: Free

Obtain an electronic copy from: david.zimmerman@csagroup.org

Order from: David Zimmerman, (216) 524-4990, david.zimmerman@csagroup.org

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

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

New Standard

BSR/IICRC S520-201x, Standard for Professional Mold Remediation (new standard)

This Standard describes the procedures to be followed and the precautions to be taken when performing mold remediation in residential, commercial and institutional buildings, and the systems and personal property contents of those structures. The Standard explains mold remediation techniques, the principles of which may apply to other microbial remediation projects or services. This Standard assumes that determining and correcting the underlying cause of mold contamination is the responsibility of a property owner and not the remediator, although a property owner may contract with a remediator or other professional to perform these services.

Single copy price: Free

Obtain an electronic copy from: Mili Washington at mili@iicrc.org

Order from: Mili Washington, (702) 850-2710, mili@iicrc.org

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

ISA (International Society of Automation)

New Standard

BSR/ISA 101.01-201x, Human Machine Interfaces for Process Automation Systems (new standard)

Scope encompasses human machine interfaces (HMI) for equipment and automated processes, in applications including continuous, batch, discrete processes, and any process using an HMI for interfacing to a controlled system. There may be differences in implementation to meet the specific needs based on process type.

Single copy price: $99.00 usd

Obtain an electronic copy from: crobinson@isa.org

Order from: Charles Robinson, (919) 990-9213, crobinson@isa.org

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

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

Supplement

INCITS 480-2011/AM1-201x, Information technology - BIOS Enhanced Disk Drive Specification - 4 (supplement to ANSI INCITS 480-2011)

This project would be an amendment to ANSI INCITS 480-2011, Information technology - BIOS Enhanced Disk Drive Services - 4 (EDD-4). The project would add device interface and device path information for new interfaces to ANSI INCITS 480-2011, Information technology - BIOS Enhanced Disk Drive Services - 4 (EDD-4).

Single copy price: $60.00

Obtain an electronic copy from: www.incits.org

Order from: www.incits.org

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

PEARL (Professional Electrical Apparatus Recyclers League)

New Standard

BSR/PEARL Electrical Apparatus Recycling Standards - 2015, Professional Electrical Apparatus Recyclers League Reconditioning Standards for Electrical Apparatus and Electrical Equipment used in Commercial and Industrial Applications (new standard)

The PEARL Reconditioning Standards pertain to the reconditioning of electrical distribution equipment and accessories. The term reconditioning is defined as "the process of returning electrical equipment to safe operating condition as recommended by the manufacturer's instructions or industrial standards, and tested by recognized industrial test standards."

Single copy price: $375.00

Obtain an electronic copy from: pearl@pearl1.org

Order from: David Stumph, (720) 881-6100, DStumph@kellencompany.com

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

TIA (Telecommunications Industry Association)

Addenda

BSR/TIA 606-B-1-201x, Administration Standard for Commercial Telecommunications Infrastructure - Automated Infrastructure Management Systems (addenda to ANSI/TIA 606-B-2012)

The purpose of this addendum is to update the core functions, auxiliary functions, and usage recommendations for automated infrastructure management (AIM) systems specified in TIA-606-B to harmonize with ISO/IEC 14763-2-1, Implementation and operation of customer premises cabling - Part 2: Planning and installation - Amendment for inclusion of AIM systems, and ISO/IEC 18598, Automated Infrastructure Management (AIM) Systems - Requirements, Data Exchange and Applications.

Single copy price: $64.00

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

TIA (Telecommunications Industry Association)

New Standard

BSR/TIA 526.7-201x, Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant, adoption of IEC 61280-4-2 edition 2: Fibre-Optic Communications Subsystem Test Procedures - Part 4-2: Installed Cable Plant - Single-Mode Attenuation and Optical Return Loss Measurement (new standard)

This procedure can be used to measure the optical loss between any two passively-connected points, including end terminations, of a single-mode optical-fiber cable plant. The optical-fiber cable plant, as the term is used here, may consist of optical fiber cables, connectors, mounting panels, jumper cables, and other passive components, but may not include active components.

Single copy price: $146.00

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

TIA (Telecommunications Industry Association)

Revision

BSR/TIA 912-C-201x, Telecommunications - IP Telephony Equipment - Voice Gateway Transmission Requirements (revision and redesignation of ANSI/TIA-912-B-2007)

This standard covers transmission requirements for voice gateways (VGs) that provide routing functions between telephones, traditional public and private networks, and modern packet-based networks. VGs include packet-based enterprise equipment, residential gateways, ADSL-based Integrated Access Devices (IADs), and cable-based Multimedia Terminal Adapters (MTAs). The main purpose of this revision is to add requirements for supporting wideband (nominally 100 to 7,000 Hz) analog telephones that may be connected to voice gateways for providing High Definition (HD) voice services such as those available using Voice over Internet Protocol (VoIP).

Single copy price: $174.00

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

TIA (Telecommunications Industry Association)

Revision

BSR/TIA 1063-A-201x, Telecommunications - User Premises Equipment - Analog Telephone Port Requirements for Packet-Based User Premises Terminal Adapters (revision and redesignation of ANSI/TIA 1063-2007)

The TIA 1063 standard is being revised to address several technical issues identified for performance requirements and testability. In addition, new proposals related to the digital signaling side of the ATA are expected to be reviewed and considered as part of the revision project.

Single copy price: $146.00

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 1647-201x, Standard for Safety for Motor-Operated Massage and Exercise Machines (revision of ANSI/UL 1647-2014a)

(1) Clarification of maximum normal operation for a hand-held massager or vibration device as operation with no load applied; (2) Specification of loading conditions for inversion tables with adjustable settings to accommodate different weight loads; (3) Clarification of the test methods for the impact and endurance tests for end stops for inversion tables; (4) Clarification that automatically and remotely controlled appliance requirements are specific to only those parts of the appliance that are automatically or remotely controlled; (5) Addition of warning marking requirements specific to the use of exercise equipment by or near children; (6) Revision to and addition of various marking requirements intended to clarify the requirements for the user of the standard; (7) Revision to specify the correct reference standard for non-Class 2 power supplies, UL 1012, Standard for Power Units Other than Class 2; and (8) Revision to current leakage requirements for treadmills to align with similar requirements in UL 101, Leakage Current for Appliances.

Single copy price: Contact comm2000 for pricing and delivery options

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

Order from: comm2000

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

UL (Underwriters Laboratories, Inc.)

Revision

BSR/UL 2443-201x, Standard for Safety for Flexible Sprinkler Hose with Fittings for Fire Protection Service (revision of ANSI/UL 2443-2010)

These changes for UL 2443 are being proposed: (1) Stress Corrosion Cracking of Stainless Steel Parts Test; (2) High-Pressure Flow Test; (3) Fatigue tests; (4) Revisions to clarify and update test method and requirements; (5) Definition of a bend; (6) Minimum number of bends for testing; and (7) Tool or template for verifying minimum bend radii.

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: Raymond Suga, (631) 546-2593, raymond.m.suga@ul.com

Comment Deadline: May 12, 2015

ASME (American Society of Mechanical Engineers)

New Standard

BSR/ASME MFC 21.1-201x, Measurement of Gas Flow by Means of Capillary Tube Thermal Mass Flowmeters and Controllers (new standard)

This Standard explains the principle of operation; establishes common terminology; and gives guidelines for the selection, installation, calibration, and operation of capillary tube thermal flow meters and controllers for the measurement and control of fluid mass flow rate. The content of this standard applies to single-phase laminar flows of gases or liquids of known composition, including single-phase multicomponent mixtures of known proportions. This Standard applies only to fluid flow that is steady or varies only slowly with time.

Single copy price: Free

Order from: Mayra Santiago, (212) 591-8521, ansibox@asme.org

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

ASME (American Society of Mechanical Engineers)

Revision

BSR/ASME B5.50-201x, 7/24 Taper Tool to Spindle Connection for Automatic Tool Change (revision of ANSI/ASME B5.50-2009)

This Standard pertains to the standardization of basic toolholder shank, retention knob, and socket assemblies for numerically controlled machining centers with automatic tool changers. The requirements contained in this standard are intended to provide toolholder interchangeability between machining centers with automatic tool changers of various types.

Single copy price: Free

Order from: Mayra Santiago, (212) 591-8521, ansibox@asme.org

Send comments (with copy to psa@ansi.org) to: Donnie Alonzo, (212) 591-7004, dalonzo@asme.org

Technical Reports Registered with ANSI

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Immediately following the end of a 30-day announcement period in Standards Action, the Technical Report will be registered by ANSI. Please submit any comments regarding this registration to the organization indicated, with a copy to the PSA Center, American National Standards Institute, 25 West 43rd Street, New York, NY 10036 or E-Mail to psa@ansi.org.

AAMI (Association for the Advancement of Medical Instrumentation)

AAMI/IEC TIR 62354-2015, General testing procedures for medical electrical equipment (TECHNICAL REPORT) (technical report)

This Technical Report applies to medical electrical equipment. The object of this technical report is to provide guidance on general testing procedures according to IEC 60601-1:1988 (including the collateral provisions of IEC 60601-1:2000) and IEC 60601-1:2005 and IEC 60601-1:2005/AMD 1:2012.

Single copy price: $210.00 for AAMI members; $350.00 for non-members

Order from: http://my.aami.org/store/Default.aspx

Send comments (with copy to psa@ansi.org) to: Hae Choe, (703) 253-8268, HChoe@aami.org; customerservice@aami.org

HL7 (Health Level Seven)

V3DAM DCM4MEDDEV R1-2015, HL7 Version 3 Domain Analysis Model; Detailed Clinical Models for Medical Devices, Release 1 (TECHNICAL REPORT) (technical report)

The objective of this project is to use a Domain Analysis Model (DAM) in order to specify the content of a set of reusable Detailed Clinical Models (DCM), The DCMs and the associated DAM enable semantic interoperability for medical device measurements across devices and information systems. A DAM is intended to improve communication of interoperability requirements and workflow automation between the business stakeholders, clinicians, vendors, and integrators (both IT and clinical engineering). It is used in this project to identify the context and content of DCMs.

Single copy price: Free to HL7 members; Free to non-members 90 days after publication on the HL7 website

Order from: Karen Van Hentenryck, (734) 677-7777 Ext 104, Karenvan@HL7.org

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

Notice of Withdrawn ANS by an ANSI-Accredited Standards Developer

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

IEST (Institute of Environmental Sciences and Technology)

ANSI/IEST/ISO 14644-6-2008, Cleanrooms and associated controlled environments - Part 6: Vocabulary

Questions may be directed to: Jennifer Sklena, (847) 981-0100, jsklena@iest.org; iestservices@iest.org

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.

API (American Petroleum Institute)

Office: 1220 L Street NW
Washington, DC 20005

Contact: *Jennifer Jones*

Phone: (202) 682-8073

Fax: (202) 962-4797

E-mail: jonesj@api.org

BSR/API MPMS Chapter 2.2C, 1st Edition-2002 (R201x), Calibration of Upright Cylindrical Tanks Using the Optical-Triangulation Method (reaffirmation of ANSI/API MPMS 2.2C-2002)

Obtain an electronic copy from: jonesj@api.org

BSR/API MPMS Chapter 2.2E, 1st Edition-2009 (R201x), Petroleum and Liquid Petroleum Products - Calibration of Horizontal Cylindrical Tanks - Part 1: Manual Methods (reaffirmation of ANSI/API MPMS 2.2E-2004 (R2009))

Obtain an electronic copy from: Jonesj@api.org

BSR/API MPMS Chapter 2.2F, 1st Edition-2009 (R201x), Petroleum and Liquid Petroleum Products - Calibration of Horizontal Cylindrical Tanks - Part 2: Internal Electro-optical Distance-ranging Method (reaffirmation of ANSI/API MPMS 2.2F-2004 (R2009))

Obtain an electronic copy from: jonesj@api.org

BSR/API MPMS Chapter 5.6, 1st Edition-2007 (R201x), Measurement of Liquid Hydrocarbons by Coriolis Meters (reaffirmation of ANSI/API MPMS Ch. 5.6-2002 (R2007))

Obtain an electronic copy from: Jonesj@api.org

ASA (ASC S3) (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 S3.6-201x, Specification for Audiometers (revision of ANSI/ASA S3.6-2010)

CEA (Consumer Electronics Association)

Office: 1919 South Eads Street
Arlington, VA 22202

Contact: *Veronica Lancaster*

Phone: (703) 907-7697

Fax: (703) 907-4197

E-mail: vlancaster@ce.org; dwilson@ce.org

BSR/CEA 2045-A-201x, Modular Communications Interface for Energy Management (revision and redesignation of ANSI/CEA 2045-2013)

ISA (International Society of Automation)

Office: 67 Alexander Drive
Research Triangle Park, NC 27709

Contact: *Charles Robinson*

Phone: (919) 990-9213

Fax: (919) 549-8288

E-mail: crobinson@isa.org

BSR/ISA 101.01-201x, Human Machine Interfaces for Process Automation Systems (new standard)

Obtain an electronic copy from: crobinson@isa.org

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

Office: 1101 K Street NW
Suite 610
Washington, DC 20005-3922

Contact: *Rachel Porter*

Phone: (202) 626-5741

Fax: 202-638-4922

E-mail: comments@itic.org

INCITS 480-2011/AM1-201x, Information technology - BIOS Enhanced Disk Drive Specification - 4 (supplement to ANSI INCITS 480-2011)

Obtain an electronic copy from: www.incits.org

TAPPI (Technical Association of the Pulp and Paper Industry)

Office: 15 Technology Parkway South
Peachtree Corners, GA 30092

Contact: *Charles Bohanan*

Phone: (770) 209-7276

Fax: (770) 446-6947

E-mail: standards@tappi.org

BSR/TAPPI T 566 om-201x, Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration) (new standard)

TIA (Telecommunications Industry Association)

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

Contact: *Germaine Palangdao*

Phone: (703) 907-7497

Fax: (703) 907-7727

E-mail: standards@tiaonline.org

BSR/TIA 526.7-201x, Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant, adoption of IEC 61280-4-2 edition 2: Fibre-Optic Communications Subsystem Test Procedures - Part 4-2: Installed Cable Plant - Single-Mode Attenuation and Optical Return Loss Measurement (new standard)

Obtain an electronic copy from: standards@tiaonline.org

BSR/TIA 606-B-1-201x, Administration Standard for Commercial Telecommunications Infrastructure - Automated Infrastructure Management Systems (addenda to ANSI/TIA 606-B-2012)

Obtain an electronic copy from: standards@tiaonline.org

BSR/TIA 912-C-201x, Telecommunications - IP Telephony Equipment - Voice Gateway Transmission Requirements (revision and redesignation of ANSI/TIA-912-B-2007)

Obtain an electronic copy from: standards@tiaonline.org

BSR/TIA 1063-A-201x, Telecommunications - User Premises Equipment - Analog Telephone Port Requirements for Packet-Based User Premises Terminal Adapters (revision and redesignation of ANSI/TIA 1063-2007)

Obtain an electronic copy from: standards@tiaonline.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.

ASCE (American Society of Civil Engineers)

New Standard

* ANSI/ASCE/EWRI 39-2015, Guidelines for Operational Hail Suppression Programs (new standard): 3/5/2015

ATIS (Alliance for Telecommunications Industry Solutions)

Stabilized Maintenance

ANSI/ATIS 0600107.a-2005 (S2015), Digital Hierarchy - Formats Specification (Virtual Concatenation and LCAS) (Supplement to ATIS-0600107) (stabilized maintenance of ANSI/ATIS 0600107a -2005 (R2010)): 3/12/2015

ANSI/ATIS 0600401.01-2000 (S2015), Network to Customer Installation Interfaces - Analog Voicegrade Switched Access Lines Using Loop-Start or Ground Start Signaling with Line-Side Answer Supervision Feature (stabilized maintenance of ANSI/ATIS 0600401.01-2000 (R2010)): 3/12/2015

ANSI/ATIS 0600401.02-2000 (S2015), Network-to-Customer Installation Interfaces - Analog Voicegrade Switched Access Lines with Distinctive Ringing Features (stabilized maintenance of ANSI/ATIS 0600401.02-2000 (R2010)): 3/12/2015

ANSI/ATIS 0600401.03-1998 (S2015), Network-to-Customer Installation Interfaces - Analog Voicegrade Switched Access Lines with Calling Number Delivery, Calling Name Delivery, or Visual Message-Waiting Indicator Features (stabilized maintenance of ANSI/ATIS 0600401.03-1998 (R2010)): 3/12/2015

ANSI/ATIS 0600401.04-2000 (S2015), Network and Customer Installation Interfaces - Analog Voicegrade Switched Access Lines with the Call Waiting, Distinctive Call Waiting, or Calling Identity Delivery on Call Waiting Feature (stabilized maintenance of ANSI/ATIS 0600401.04-2000 (R2010)): 3/12/2015

ANSI/ATIS 0600401.05-2000 (S2015), Network-to-Customer Installation Interfaces - Analog Voicegrade Switched Access Lines with Network-Implemented Coin-Operated Payphone Feature (stabilized maintenance of ANSI/ATIS 0600401.05-2000 (R2010)): 3/12/2015

ANSI/ATIS 0600403.a-2001 (S2015), Network to Customer Installation Interfaces - DS1 Electrical Interfaces (stabilized maintenance of ANSI/ATIS 0600403.a-2001 (R2010)): 3/12/2015

ANSI/ATIS 0600403.b-2002 (S2015), Network and Customer Installation Interfaces - DS1 Electrical Interface (stabilized maintenance of ANSI/ATIS 0600403.b-2002 (R2010)): 3/11/2015

ANSI/ATIS 0600403.01-1999 (S2015), Network and Customer Installation Interfaces - (ISDN) Primary Rate Layer 1 Electrical Interfaces Specification (stabilized maintenance of ANSI/ATIS 0600403.01-1999 (R2010)): 3/12/2015

ANSI/ATIS 0600403.02-1999 (S2015), Network and Customer Installation Interfaces - DS1 - Robbed-Bit Signaling State Definitions (stabilized maintenance of ANSI/ATIS 0600403.02-1999 (R2010)): 3/12/2015

ANSI/ATIS 0600403.02.a-2001 (S2015), Network and Customer Installation Interfaces - DS1 Robbed-bit Signaling State Definitions (stabilized maintenance of ANSI/ATIS 0600403.02.a-2001 (R2010)): 3/12/2015

ANSI/ATIS 0600403.03-2002 (S2015), Network and Customer Installation Interfaces - DS1 Physical Layer Interface and Mapping Specifications for ATM Applications (stabilized maintenance of ANSI/ATIS 0600403.03-2002 (R2011)): 3/10/2015

ANSI/ATIS 0600404.a-2005 (S2015), Network and Customer Installation Interfaces - DS3 Metallic Interface Specification (stabilized maintenance of ANSI/ATIS 0600404.a-2005 (R2010)): 3/11/2015

ANSI/ATIS 0600404.01-2002 (S2015), Network and Customer Installation Interfaces - DS3 Physical Layer Interface and Mapping Specifications for ATM Applications (stabilized maintenance of ANSI/ATIS 0600404.01-2002 (R2011)): 3/10/2015

ANSI/ATIS 0600405-2002 (S2015), Network and Customer Installation Interfaces - Direct Inward Dialing Analog Voicegrade Switched Access Using Loop Reverse-Battery Signaling (stabilized maintenance of ANSI/ATIS 0600405-2002 (R2011)): 3/9/2015

ANSI/ATIS 0600407-2002 (S2015), Network-to-Customer Installation Interfaces - Analog Voicegrade Special Access Lines Using Customer-Installation-Provided Loop-Start Supervision (stabilized maintenance of ANSI/ATIS 0600407-2002 (R2011)): 3/9/2015

ANSI/ATIS 0600409-2002 (S2015), Network and Customer Installation Interfaces - Analog Voicegrade Special Access Lines Using E&M Signaling (stabilized maintenance of ANSI/ATIS 0600409-2002 (R2011)): 3/9/2015

ANSI/ATIS 0600410-2001 (S2015), Network-to-Customer Electrical Interface - Digital Data at 64 kbit/s and Subrates (stabilized maintenance of ANSI/ATIS 0600410-2001 (R2011)): 3/9/2015

ANSI/ATIS 0600411-2001 (S2015), Network-to-Customer Installation Interfaces - Analog Voicegrade Enhanced 911 Switched Access Using Network-Provided Reverse-Battery Signaling (stabilized maintenance of ANSI/ATIS 0600411-2001 (R2011)): 3/9/2015

ANSI/ATIS 0600416.01-1999 (S2015), Network to Customer Installation Interfaces - Synchronous Optical NETwork (SONET) Physical Media Dependent Specification: Multi-Mode Fiber (stabilized maintenance of ANSI/ATIS 0600416.01-1999 (R2010)): 3/11/2015

ANSI/ATIS 0600416.02-1999 (S2015), Network to Customer Installation Interfaces - Synchronous Optical NETwork (SONET) Physical Media Dependent Specification: Single-Mode Fiber (stabilized maintenance of ANSI/ATIS 0600416.02-1999 (R2010)): 3/11/2015

ANSI/ATIS 0600416.02a-2001 (S2015), Supplement to ATIS -0600416.02.1999 (R2005) - Network to Customer Installation Interfaces - Synchronous Optical NETwork (SONET) Physical Media Dependent Specification: Single Mode Fiber (stabilized maintenance of ANSI/ATIS 0600416.02a-2001 (R2010)): 3/11/2015

ANSI/ATIS 0600416.03-1999 (S2015), Network to Customer Installation Interfaces - Synchronous Optical NETwork (SONET) Physical Media Dependent Specification: Electrical (stabilized maintenance of ANSI/ATIS 0600416.03-1999 (R2010)): 3/11/2015

ANSI/ATIS 0600416.04-2005 (S2015), Network and Customer Installation Interfaces - SONET Physical Layer Interface and Mapping Specifications for ATM Applications (stabilized maintenance of ANSI/ATIS 0600416.04-2005 (R2010)): 3/11/2015

ANSI/ATIS 0600416-1999 (S2015), Network to Customer Installation Interfaces - Synchronous Optical NETwork (SONET) Physical Layer Specification: Common Criteria (stabilized maintenance of ANSI/ATIS 0600416-1999 (R2010)): 3/11/2015

ANSI/ATIS 0600417-2003 (S2015), Spectrum Management for Loop Transmission Systems (stabilized maintenance of ANSI ATIS 0600417-2003 (R2012)): 3/9/2015

ANSI/ATIS 0600418.a-2004 (S2015), High bit rate Digital Subscriber Line - 2nd Generation (HDSL2/HDSL4), Issue 2 (stabilized maintenance of ANSI ATIS 0600418.a-2004 (R2014)): 3/9/2015

ANSI/ATIS 0600418-2002 (S2015), High bit rate Digital Subscriber Line - 2nd Generation (HDSL2/HDSL4) Issue 2 (stabilized maintenance of ANSI/ATIS 0600418-2002 (R2011)): 3/9/2015

ANSI/ATIS 0600421-2001 (S2015), In-Line Filter for Use with Voiceband Terminal Equipment Operating on the Same Wire Pair with High Frequency (up to 12 MHz) Devices (stabilized maintenance of ANSI/ATIS 0600421-2001 (R2011)): 3/10/2015

ANSI/ATIS 0600424-2004 (S2015), Interface Between Networks and Customer Installation Very-high-bit-rate Digital Subscriber Lines (VDSL) Metallic Interface (DMT based) (stabilized maintenance of ANSI ATIS 0600424-2004 (R2014)): 3/9/2015

ANSI/ATIS 0600427.02-2005 (S2015), Ethernet-based Multi-Pair Bonding (stabilized maintenance of ANSI/ATIS 0600427.02-2005 (R2010)): 3/11/2015

ANSI/ATIS 0600601-1999 (S2015), Integrated Services Digital Network (ISDN) - Basic Access Interface for Use on Metallic Loops for Application on the Network Side of the NT (Layer 1 Specification) (stabilized maintenance of ANSI ATIS 0600601-1999 (R2014)): 3/9/2015

ANSI/ATIS 0600605-1991 (S2015), Integrated Services Digital Network (ISDN) - Basic Access Interface for S and T Reference Points (Layer 1 Specification) (stabilized maintenance of ANSI/ATIS 0600605.1991 (R2014)): 3/11/2015

ANSI/ATIS 0900102-1993 (S2015), Digital Hierarchy - Electrical Interfaces (stabilized maintenance of ANSI/ATIS 0900102-1993 (R2010)): 3/10/2015

ANSI/ATIS 0900105.01-2000 (S2015), Synchronous Optical Network (SONET) - Automatic Protection Switching (stabilized maintenance of ANSI/ATIS 0900105.01-2000 (R2010)): 3/10/2015

ANSI/ATIS 0900105.04-1995 (S2015), Synchronous Optical Network (SONET) - Data Communication Channel Protocol and Architectures (stabilized maintenance of ANSI/ATIS 0900105.04 -1995 (R2010)): 3/10/2015

CSA (CSA Group)

Reaffirmation

* ANSI Z21.81-2004 (R2015), Z21.81a-2006 (R2015), Standard for Cylinder Connection Devices (Same as CSA 6.25) (reaffirmation of ANSI Z21.81-2004 (R2010), Z21.81a-2006 (R2010)): 3/12/2015

HPS (ASC N13) (Health Physics Society)

Reaffirmation

ANSI N13.11-2009 (R2015), Personnel Dosimetry Performance - Criteria for Testing (reaffirmation of ANSI N13.11-2009): 3/12/2015

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

New Standard

ANSI/IICRC S100-2015, Standard for Professional Cleaning of Textile Floor Coverings (new standard): 3/6/2015

NACE (NACE International, the Corrosion Society)

New National Adoption

ANSI/NACE SP0115/ISO 15589-2-2015, Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline transportation - Part 2: Offshore pipelines (national adoption with modifications of ISO 15589-2:2012): 3/12/2015

NECA (National Electrical Contractors Association)

Revision

* ANSI/NECA 407-2015, Standard for Installing and Maintaining Panelboards (revision of ANSI/NECA 407-2009): 3/12/2015

TIA (Telecommunications Industry Association)

Revision

ANSI/TIA 569-D-2015, Telecommunications Pathways and Spaces (revision and redesignation of ANSI/TIA 569-C-1-2013): 3/12/2015

UL (Underwriters Laboratories, Inc.)

New National Adoption

ANSI/UL 61800-5-1-2015, Standard for Safety for Adjustable Speed Electrical Power Drive Systems; Part 5-1: Safety Requirements - Electrical, Thermal and Energy (national adoption of IEC 61800-5-1 with modifications and revision of ANSI/UL 61800-5-1-2012): 3/6/2015

New Standard

ANSI/UL 567A-2015, Standard for Safety for Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 - E85) (new standard): 3/5/2015

ANSI/UL 567B-2015, Standard for Safety for Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil (new standard): 3/5/2015

ANSI/UL 2416-2015, Standard for Safety for Audio/Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems (new standard): 3/11/2015

ANSI/UL 2592-2015, Standard for Safety for Low Voltage LED Wire, UL 2592 (Proposal dated 10/10/14) (new standard): 3/9/2015

Revision

ANSI/UL 96-2015, Standard for Safety for Lightning Protection Components (revision of ANSI/UL 96-2010a): 3/3/2015

ANSI/UL 96-2015a, Standard for Safety for Lightning Protection Components (revision of ANSI/UL 96-2010a): 3/3/2015

ANSI/UL 147-2015, Standard for Safety for Hand-Held Torches for Fuel Gases (revision of ANSI/UL 147-2013): 3/5/2015

ANSI/UL 817-2015, Standard for Safety for Cord Sets and Power-Supply Cords (revision of ANSI/UL 817-2014): 3/11/2015

* ANSI/UL 817-2015a, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 04-25-14) (revision of ANSI/UL 817 -2014a): 3/11/2015

* ANSI/UL 817-2015b, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 05-16-14) (revision of ANSI/UL 817 -2014a): 3/11/2015

* ANSI/UL 817-2015c, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 07-25-14) (revision of ANSI/UL 817 -2014a): 3/12/2015

* ANSI/UL 817-2015d, Standard for Safety for Cord Sets and Power-Supply Cords (Proposal dated 10-03-14) (revision of ANSI/UL 817 -2014c): 3/11/2015

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.

ANS (American Nuclear Society)

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BSR/ANS 57.11-201x, Integrated Safety Assessments for Nonreactor Nuclear Facilities (new standard)

Stakeholders: 10 CFR 70 licensees; U.S. Nuclear Regulatory Commission; Department of Energy; owners, designers, and constructors of nonreactor nuclear facilities.

Project Need: Provide a standard methodology for Integrated Safety Assessments (ISAs) to support non-reactor nuclear facilities throughout the design, construction, and operating phases.

This standard provides the process to be used to develop safety assessments consistent with 10 CFR Part 70 to identify credible accident sequences that can lead to "high" or "intermediate" consequences. The assessments evaluate radiological, nuclear criticality, and chemical and fire hazards. The ISA will specify safety controls to prevent or mitigate those potential accidents. It may also be used to assess the likelihood that the facilities would meet performance requirements and management measures a facility operator will rely on to ensure that safety controls are available to perform their function.

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

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Daytona Beach, FL 32114-1112

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BSR/APCO 3.102.2-201x, Core Competencies and Minimum Training Standards for Public Safety Communications Supervisors (revision and redesignation of ANSI/APCO 3.102.1-2012)

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

Project Need: This standard identifies the core competencies and minimum training requirements for Public Safety Communications Supervisors. This position is typically tasked with managing daily operations, performing administrative duties and maintaining employee relations. This position provides leadership and guidance to employees in order to achieve the Agency's mission, while providing service to the public and emergency responders.

This standard revision identifies the core competencies and minimum training requirements for Public Safety Communications Supervisors. This position is typically tasked with managing daily operations, performing administrative duties, and maintaining employee relations. This position provides leadership and guidance to employees in order to achieve the Agency's mission, while providing service to the public and emergency responders

BSR/APCO ANS 3.101.3-201x, Core Competencies and Minimum Training Standards for Communications Training Officers (revision and redesignation of ANSI/APCO ANS 3.101.2-2013)

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

Project Need: Identifies minimum training requirements for individuals charged with the planning, development, implementation, and administration of training within a public safety communications center.

This standard revision provides the minimum training requirements for individuals responsible for public safety communications training programs as well as the knowledge, skills, and traits of the individuals responsible for this critical function.

BSR/APCO ANS 3.104.2-2012, Minimum Training Standard for Public Safety Communications Training Coordinator (revision and redesignation of ANSI/APCO ANS 3.104.1-2012)

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

Project Need: To identify minimum training requirements for individuals charged with the planning, development, implementation, and administration of training within a public safety communication center.

This standard revision defines the minimum training requirements for individuals responsible for public safety communications training programs as well as the knowledge, skills, and traits of the individuals responsible for this critical function.

ASA (ASC S3) (Acoustical Society of America)

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BSR/ASA S3.6-201x, Specification for Audiometers (revision of ANSI/ASA S3.6-2010)

Stakeholders: Manufacturers of audiometers, audiologists, calibration personal, certification / testing laboratories, government and regulatory agencies (i.e., FDA, OSHA).

Project Need: This revision responds to a public comment received on the 2010 edition. This revision will correct and update tables in the 2010 edition of this standard and maintain technical equivalence with IEC 60645-1 with additional clauses.

The audiometers covered in this specification are devices designed for use in determining the hearing threshold level of an individual in comparison with a chosen standard reference threshold level. This standard provides specifications and tolerances for pure tone, speech, and masking signals and describes the minimum test capabilities of different types of audiometers.

ASME (American Society of Mechanical Engineers)

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* BSR/ASME PTC 19.3TW-201x, Thermowells (revision of ANSI/ASME PTC 19.3-1974 (R2004))

Stakeholders: Manufacturers of thermowells, operators of industrial plants, piping designers.

Project Need: Incorporate errata corrections, a previously issued case, and bring the code up to current business practices.

This Standard applies to thermowells machined from bar stock and includes those welded to or threaded into a flange as well as those welded into a process vessel or pipe with or without a weld adaptor.

AWS (American Welding Society)

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BSR/AWS D18.2-201X, Guide to Weld Discoloration Levels on Inside of Austenitic Stainless Steel Tube (revision of ANSI/AWS D18.2 -2009)

Stakeholders: Any industry welding austenitic stainless steel tube and pipe systems in sanitary (hygienic) applications.

Project Need: This document needs to be reviewed or revised to meet the five-year review policy for AWS standards.

This standard addresses factors that affect weld discoloration on the inside of austenitic stainless steel tube. The document contains a color illustration relating the discoloration to the oxygen content of the backing shielding gas.

BSR/AWS D18.1/D18.1M-201X, Specification for Welding of Austenitic Stainless Steel Tube and Pipe Systems in Sanitary (Hygienic) Applications (revision of ANSI/AWS D18.1/D18.1M-2009)

Stakeholders: Any industry welding austenitic stainless steel tube and pipe systems in sanitary (hygienic) applications.

Project Need: This document needs to be reviewed or revised to meet the five-year review policy for AWS standards.

This specification provides the requirements for welds in tubing systems in dairy and other food processing plants. The document addresses qualifications, fabrication, extent of visual examination, acceptance criteria, and documentation requirements.

BPI (Building Performance Institute)

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Contact: *Susan Carson*

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* BSR/BPI-2400-S-201x, Standard Practice for Standardized Qualification of Whole-House Energy Savings Predictions by Calibration to Energy Use History (revision of ANSI/BPI-2400-S -2012)

Stakeholders: Manufacturers of materials and equipment, service providers, contractors and energy efficiency agencies concerned with home performance retrofit of existing buildings.

Project Need: Update existing standard. Intended to increase confidence in energy savings projected by whole building simulation for single family dwellings and townhouses that undergo energy efficiency retrofits.

Specifies the requirements and process for the calculation of standardized predicting savings: a difference (delta simulation) between the modeled energy usage before an energy upgrade (or set of upgrades) and modeled energy use after an upgrade (or set of upgrades), using approved building energy simulations software. Applies to existing detached single-family dwellings and townhouses that meet specific criteria.

* BSR/BPI-2500-S-201x, Protocol for Quantifying Energy Efficiency Savings in Residential Buildings (new standard)

Stakeholders: Home performance and HVAC contractors, auditors, manufacturers, financiers, service providers, energy service companies, program implementers, regulators, utilities, evaluators, software companies.

Project Need: This standard will provide a more unified methodology for quantifying energy efficiency savings in order to commoditize and better value residential energy savings as a tradable resource, with a focus on residential structures. There is currently a range of practices and methodology for the quanitification of residential energy savings, but no standard that drives consistency in calculations across evaluators and automated tools.

Provides a uniform method for measuring energy efficiency at the portfolio level for the use of both markets and utilities, by calculating a standard unit of gross savings for existing residential buildings based on weather-adjusted metered data. Outputs may include time, locations, and seasonality of savings. The standard will also identify a process for management and credentials that automated systems would need for compliance with this standard.

CEA (Consumer Electronics Association)

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* BSR/CEA 2045-A-201x, Modular Communications Interface for Energy Management (revision and redesignation of ANSI/CEA 2045-2013)

Stakeholders: Consumers, CE manufacturers, appliances.

Project Need: To revise ANSI/CEA 2045.

The new project entails modifying the current published version of ANSI/CEA 2045 to include Amendment 1, address clarification issues that have been identified in the field, reorganize the data-link, and add new features and functions. ANSI/CEA-2045 specifies a modular communications interface (MCI) to facilitate communications with residential devices for applications such as energy management. The MCI provides a standard interface for energy management signals and messages to reach devices.

NOTE: The R7.8 MCI Committee is particularly interested in adding new members who acquire products that connect to demand response systems and/or home networking systems from those who build a modular communication interface into their products (called "users"), and those companies and individuals who have a general interest in the technology.

HL7 (Health Level Seven)

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BSR/HL7 CDA, R2.1-201x, HL7 Version 3 Standard: Clinical Document Architecture, Release 2.1 (revision and redesignation of ANSI/HL7 CDA, R2-2005 (R2010))

Stakeholders: Clinical and public health laboratories, immunization registries, quality reporting agencies, regulatory agency, Standards Development Organizations (SDOs), payors.

Project Need: The CDA 2.1 project will undertake an incremental refresh of the CDA standard. In order to support backwards compatibility, it will be based on version 2.07 of the HL7 Reference Information Model.

Updates to be considered to the document model include, but are not necessary limited to: (a) CDA R2 errata will be included; (b) Extensions previously required and cited by CDA Implementation Guides; (c) Attributes omitted from the classes derived from the RIM, where use cases exist for their inclusion; (d) Additional values to value sets, such as Mood codes, will be considered to ensure consistency with modeling from other committees; (e) The inclusion of tables within tables in the narrative block will be considered as a minor change; and (f) Include current language about bindings. Additional informative content will be considered for a number of topics.

BSR/HL7 CDAR2IG HAIRPT, R2-201x, HL7 Implementation Guide for CDA Release 2 - Level 3: Healthcare Associated Infection Reports, Release 2 - US Realm (revision and redesignation of ANSI/HL7 CDAR2IG HAIRPT, R1-2013)

Stakeholders: Quality reporting agencies, regulatory agency, health care IT, Local and State Departments of Health; Healthcare Institutions (hospitals, long-term care, home care, mental health).

Project Need: This project revises existing reports and adds new ones to collect data that are relevant to CDC's surveillance plan.

With cooperation from CDC and Healthcare Associated Infections (HAI) software vendors, this document will be Normative Release 2 of the HL7 Implementation Guide for CDA® Release 2: Healthcare Associated Infection Reports. The implementation guide will continue to support electronic submission of HAI data to the National Healthcare Safety Network. This document is the culmination of incremental changes via a series of DSTU releases. The IG will include the content published as part of the last DSTU update of the IG along with an additional informative appendix that includes only the subset of the NHSN HAI CDA IG relevant to specific event types.

BSR/HL7 CDAR2L3IG EMSRUNRPT, R2-201x, HL7 Version 3 Implementation Guide for CDA Release 2 - Level 3:Emergency Medical Services; Patient Care Report, Release 2 (revision and redesignation of ANSI/HL7 CDAR2L3IG EMSRUNRPT, R1-2014)

Stakeholders: Healthcare, including emergency medical services, emergency departments, and inter-facility transportation; and public health, quality reporting agencies.

Project Need: Ten fields defined in the NEMSIS data set were identified as high value to users of Patient Care Reports and thus added. Stakeholders' understanding of several of the questions already included has evolved, and they are requesting that certain answer values be added, removed, or redacted for clarity.

This CDA implementation guide, based on the EMS DAM, supports emergency medical service in the pre-hospital setting. Specifically, it defines a Patient Run Report from the EMS Agency to the ED. This guide is supported by Java class files to support document generation and validation, with or without the use of the Model Driven Health Tools application.

NEMA (ASC C37) (National Electrical Manufacturers Association)

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BSR NEMA C37.57-201x, Metal-Enclosed Interrupter Switchgear Assemblies - Conformance Testing (revision and redesignation of ANSI C37.57-2003 (R2010))

Stakeholders: Manufacturers, users, contractors, builders.

Project Need: Update the existing standard for current industry practices.

This standard specifies the tests that shall be required to demonstrate that metal-enclosed interrupter (MEI) switchgear being tested conforms with the ratings assigned to it and meets the electrical and mechanical performance requirements specified in ANSI/IEEE C37.20.3-2013.

BSR/NEMA C37.58-201x, Indoor AC Medium-Voltage Switches for Use in Metal-Enclosed Switchgear - Conformance Test Procedures (revision and redesignation of ANSI C37.58-2003 (R2010))

Stakeholders: Manufacturers, users, contractors, builders.

Project Need: Update the existing standard for current industry practices.

This standard applies to the conformance test procedure for ac medium-voltage switches rated above 1000 volts as designed, manufactured, and tested in accordance with ANSI/IEEE C37.20.4. It is intended for use in metal-clad switchgear, as described in ANSI/IEEE C37.20.2, and metal-enclosed interrupter switchgear, as described in ANSI/IEEE C37.20.3.

OEOSC (ASC OP) (Optics and Electro-Optics Standards Council)

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BSR OEOSC OP1.0110-14-201x, Optics and photonics - Preparation of drawings for optical elements and systems - Wavefront deformation tolerance (national adoption with modifications of ISO 10110-14)

Stakeholders: Optics producers and users.

Project Need: The optics industry needs drawing specifications for exchanging design information between engineering and manufacturing organizations.

The OP1.0110 series applies to the presentation of design and functional requirements for optical elements and assemblies in technical drawings used for manufacturing and inspection. This part of OP1.0110 gives rules for the indication of the permissible deformation of a wavefront transmitted through or, in the case of reflective optics, reflected from an optical element or assembly.

SAIA (ASC A92) (Scaffold & Access Industry Association)

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* BSR/SIA A92.2-201x, Standard for Vehicle-Mounted Elevating and Rotating Aerial Devices (revision of ANSI/SIA A92.2-2009)

Stakeholders: Manufacturers, dealers, installers, maintenance personnel, operators, owners and users of vehicle-mounted elevating and rotating aerial devices.

Project Need: To revise a previous approved standard ANSI/SIA A92.2 -2009.

This standard relates to the following types of vehicle-mounted aerial devices: (1) Extensible boom aerial devices; (2) Aerial ladders; (3) Articulating boom aerial devices; (4) Vertical towers; (5) A combination of any of the above. The vehicle may be a truck, a trailer, or an all-terrain vehicle.

TAPPI (Technical Association of the Pulp and Paper Industry)

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BSR/TAPPI T 566 om-201x, Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration) (new standard)

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 revise existing TAPPI standard based on comments received on draft 1 ballot.

This test method covers a procedure used to measure the resistance to bending of papers that are of low grammage, or high flexibility, or both, and that exhibit bending stiffness in the range of 0 to 10 Taber stiffness units.

TNI (The NELAC Institute)

Office: 51 Glade Mallow Road
Ballston Spa, NY 12020

Contact: *Ken Jackson*

Fax: (817) 598-1177

E-mail: ken.jackson@nelac-institute.org

BSR/TNI FSMO-V1-201x, General Requirements for Field Sampling and Measurement Organizations (new standard)

Stakeholders: Field sampling and measurement organizations, accreditation bodies, data users, regulatory agencies.

Project Need: Environmental data are generated throughout the US without any accreditation of sampling and/or measurement activities that are vital to the environmental data generated. There is no existing consensus-based standard in place for field sampling and/or measurement organizations to implement or accreditation bodies (Governmental and Non-Governmental) to access quality systems to ensure the data they are generating are of known and documented quality.

The proposed standard includes requirements applicable to those organizations engaged in environmental sampling and field measurement activities.

BSR/TNI FSMO-V2-201x, General Requirements for Accreditation Bodies Accrediting Field Sampling and Measurement Organizations (new standard)

Stakeholders: Accreditation bodies, regulatory community, recognition cooperations.

Project Need: Environmental data throughout the US are generated without any accreditation of sampling and/or measurement activities that are vital to the environmental data generated. There is no existing consensus-based standard in place for Accreditation Bodies (Governmental and Non-Governmental) to access to ensure consistent assessment of Field Sampling and/or Measurement Organizations to ensure data generated are of a known and documented quality.

The proposed standard includes requirements applicable to Accreditation Bodies engaged in environmental sampling and field measurement activities.

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
Association for the Advancement of Medical Instrumentation
4301 N Fairfax Drive
Suite 301
Arlington, VA 22203-1633
Phone: (703) 253-8268
Fax: (703) 276-0793
Web: www.aami.org

AGMA
American Gear Manufacturers Association
1001 N Fairfax Street, 5th Floor
Alexandria, VA 22314-1587
Phone: (703) 684-0211
Web: www.agma.org

AMCA
AMCA International, Inc.
30 West University Drive
Arlington Heights, IL 60004-1893
Phone: (847) 704-6295
Fax: (847) 253-0088
Web: www.amca.org

ANS
American Nuclear Society
555 North Kensington Avenue
La Grange Park, IL 60526
Phone: (708) 579-8268
Fax: (708) 579-8248
Web: www.ans.org

APCO
Association of Public-Safety Communications Officials-International
351 N. Williamson Boulevard
Daytona Beach, FL 32114-1112
Phone: (919) 625-6864
Fax: (386) 944-2794
Web: www.apcoIntl.org

API
American Petroleum Institute
1220 L Street NW
Washington, DC 20005
Phone: (202) 682-8073
Fax: (202) 962-4797
Web: www.api.org

ASA (ASC S12)
Acoustical Society of America
1305 Walt Whitman Rd
Suite 300
Melville, NY 11747
Phone: (631) 390-0215
Fax: (631) 923-2875
Web: www.acousticalsociety.org

ASABE
American Society of Agricultural and Biological Engineers
2950 Niles Road
Saint Joseph, MI 49085
Phone: (269) 932-7015
Fax: (269) 429-3852
Web: www.asabe.org

ASCE
American Society of Civil Engineers
1801 Alexander Bell Dr
Reston, VA 20191
Phone: 703-295-6176
Web: www.asce.org

ASHRAE
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle
Atlanta, GA 30329
Phone: (404) 636-8400
Fax: (678) 539-2209
Web: www.ashrae.org

ASME
American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016
Phone: (212) 591-8521
Fax: (212) 591-8501
Web: www.asme.org

ATIS
Alliance for Telecommunications Industry Solutions
1200 G Street, NW
Suite 500
Washington, DC 20005
Phone: (202) 434-8841
Fax: (202) 347-7125
Web: www.atis.org

AWS
American Welding Society
8669 NW 36 ST., #130
Miami, FL 33166
Phone: (305) 443-9353
Fax: (305) 443-5951
Web: www.aws.org

AWWA
American Water Works Association
6666 W. Quincy Ave.
Denver, CO 80235
Phone: (303) 347-3178
Fax: (303) 795-7603
Web: www.awwa.org

BICSI
Building Industry Consulting Service International
8610 Hidden River Parkway
Tampa, FL 33637
Phone: (813) 903-4712
Fax: (813) 971-4311
Web: www.bicsi.org

BPI
Building Performance Institute
107 Hermes Road
Suite 110
Malta, NY 12020
Phone: (877) 274-1274
Fax: (866) 777-1274
Web: www.bpi.org

CEA
Consumer Electronics Association
1919 South Eads Street
Arlington, VA 22202
Phone: (703) 907-7697
Fax: (703) 907-4197
Web: www.ce.org

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

HL7
Health Level Seven
3300 Washtenaw Avenue
Suite 227
Ann Arbor, MI 48104
Phone: (734) 677-7777
Fax: (734) 677-6622
Web: www.hl7.org

HPS (ASC N13)
Health Physics Society
1313 Dolley Madison Blvd
Suite 402
McLean, VA 22101
Phone: (703) 790-1745
Fax: (703) 790-2672
Web: www.hps.org

IAPMO (ASC Z124)
International Association of Plumbing & Mechanical Officials
5001 East Philadelphia Street
Ontario, CA 91761-2816
Phone: (909) 472-4106
Fax: (909) 472-4150
Web: www.iapmort.org

IICRC
the Institute of Inspection, Cleaning and Restoration Certification
4043 South Eastern Avenue
Las Vegas, NV 89119
Phone: (702) 850-2710
Fax: (360) 693-4858
Web: www.thecleantrust.org

ISA (Organization)
ISA-The Instrumentation, Systems, and Automation Society
67 Alexander Drive
Research Triangle Park, NC 27709
Phone: (919) 990-9213
Fax: (919) 549-8288
Web: www.isa.org

ITI (INCITS)
InterNational Committee for Information Technology Standards
1101 K Street NW
Suite 610
Washington, DC 20005-3922
Phone: (202) 626-5741
Fax: 202-638-4922
Web: www.incits.org

NACE
NACE International, the Corrosion Society

15835 Park Ten Place
Houston, TX 77084
Phone: (281) 228-6203
Fax: (281) 228-6387
Web: www.nace.org

NECA
National Electrical Contractors Association

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

NEMA (ASC C37)
National Electrical Manufacturers Association

1300 North 17th Street
Suite 1752
Rosslyn, VA 22209
Phone: (703) 841-3253
Fax: (703) 841-3353
Web: www.nema.org

NSF
NSF International

789 N. Dixboro Road
Ann Arbor, MI 48105-9723
Phone: (734) 827-5643
Fax: (734) 827-7880
Web: www.nsf.org

OEOSC (ASC OP)
Optics and Electro-Optics Standards Council

35 Gilbert Hill Rd.
Chester, CT 06412
Phone: (860) 878-0722
Fax: (860) 555-1212
Web: www.optstd.org

PEARL
Professional Electrical Apparatus Recyclers League

10200 W. 44th Avenue, Suite 304
c/o Kellen Company
Wheat Ridge, CO 80033
Phone: (720) 881-6100
Web: www.pearl1.org

SAIA (ASC A92)
Scaffold & Access Industry Association

400 Admiral Boulevard
Kansas City, MO 64106
Phone: (816) 595-4860
Web: www.saiaonline.org

TAPPI
Technical Association of the Pulp and Paper Industry

15 Technology Parkway South
Peachtree Corners, GA 30092
Phone: (770) 209-7276
Fax: (770) 446-6947
Web: www.tappi.org

TIA
Telecommunications Industry Association

1320 North Courthouse Road
Suite 200
Arlington, VA 22201
Phone: (703) 907-7497
Fax: (703) 907-7727
Web: www.tiaonline.org

TNI
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51 Glade Mallow Road
Ballston Spa, NY 12020
Phone: (518) 899-9697
Fax: (817) 598-1177
Web: www.NELAC-Institute.org

UL
Underwriters Laboratories, Inc.

12 Laboratory Dr.
Research Triangle Park, NC 27709
Phone: (919) 549-1479
Fax: (919) 549-1479
Web: www.ul.com

ISO Draft International Standards

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

Comments

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org). The final date for offering comments is listed after each draft.

Ordering Instructions

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

ACOUSTICS (TC 43)

ISO 389-7/DAmd1, Plastics piping systems - Polyethylene (PE) pipes and fittings for water supply - Part 1: General - Amendment 1: Reference threshold of hearing at 20 Hz and 18 000 Hz under free-field listening conditions and at 20 Hz under diffuse-field listening conditions - 6/5/2015, FREE

ADDITIVE MANUFACTURING (TC 261)

ISO/ASTM DIS 20195, Standard Practice - Guide for Design for Additive Manufacturing - 6/8/2015, $77.00

AIR QUALITY (TC 146)

ISO/DIS 22262-3, Air quality - Bulk materials - Part 3: Quantitative determination of asbestos by X-ray diffraction method - 6/12/2015

AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO/DIS 18202, Space data and information transfer systems - Mission operations message abstraction layer - 6/8/2015, $185.00

ISO/DIS 22642, Space data and information transfer systems - TC synchronization and channel coding - 6/7/2015, $102.00

ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

ISO/DIS 18190, Anaesthetic and respiratory equipment - General requirements for airways and related equipment - 6/5/2015, $82.00

CLEANING EQUIPMENT FOR AIR AND OTHER GASES (TC 142)

ISO/DIS 16890-3, Air filters for general ventilation - Part 3: Determination of the gravimetric efficiency and the air flow resistance versus the mass of test dust captured - 6/15/2015, $82.00

ISO/DIS 16890-4, Air filters for general ventilation - Part 4: Conditioning method to determine the minimum fractional test efficiency - 6/15/2015, $58.00

EARTH-MOVING MACHINERY (TC 127)

ISO/DIS 6405-1, Earth-moving machinery - Symbols for operator controls and other displays - Part 1: Common symbols - 6/8/2015

ISO/DIS 6405-2, Earth-moving machinery - Symbols for operator controls and other displays - Part 2: Symbols for specific machines, equipment and accessories - 6/8/2015

IMPLANTS FOR SURGERY (TC 150)

ISO 21535/DAmd1, Non-active surgical implants - Joint replacement implants - Specific requirements for hip-joint replacement implants - Amendment 1 - 6/15/2015, $29.00

ISO/DIS 7199, Cardiovascular implants and artificial organs - Blood-gas exchangers (oxygenators) - 6/8/2015, $58.00

ISO/DIS 15674, Cardiovascular implants and artificial organs - Hard-shell cardiotomy/venous reservoir systems (with/without filter) and soft venous reservoir bags - 6/9/2015, $53.00

ISO/DIS 15675, Cardiovascular implants and artificial organs - Cardiopulmonary bypass systems - Arterial blood line filters - 6/9/2015, $53.00

ISO/DIS 15676, Cardiovascular implants and artificial organs - Requirements for single-use tubing packs for cardiopulmonary bypass and extracorporeal membrane oxygenation (ECMO) - 6/9/2015, $46.00

ISO/DIS 18241, Cardiovascular implants and extracorporeal systems - Cardiopulmonary bypass systems - Venous bubble traps - 6/9/2015, $53.00

MECHANICAL TESTING OF METALS (TC 164)

ISO/DIS 26843, Metallic Materials - Measurement of fracture toughness at impact loading rates using precracked Charpy-type test pieces - 6/8/2015, $102.00

MECHANICAL VIBRATION AND SHOCK (TC 108)

ISO 16063-21/DAmd1, Methods for the calibration of vibration and shock transducers - Part 21: Vibration calibration by comparison to a reference transducer - Amendment 1 - 6/12/2015

ISO/DIS 13373-9, Condition monitoring and diagnostics of machines - Vibration condition monitoring - Part 9: Diagnostic techniques for electric motors - 6/6/2015

ISO/DIS 21940-12, Mechanical vibration - Rotor balancing - Part 12: Procedures and tolerances for rotors with flexible behaviour - 6/9/2015

NICKEL AND NICKEL ALLOYS (TC 155)

ISO/DIS 8049, Ferronickel shot - Sampling for analysis - 6/8/2015, $93.00

ROAD VEHICLES (TC 22)

ISO/DIS 6621-1, Internal combustion engines - Piston rings - Part 1: Vocabulary - 6/8/2015, $93.00

RUBBER AND RUBBER PRODUCTS (TC 45)

ISO/DIS 1420, Rubber- or plastics-coated fabrics - Determination of resistance to penetration by water - 6/9/2015, $40.00

ISO/DIS 17717, Meteorological balloon - Specification - 6/9/2015

SERVICE ACTIVITIES RELATING TO DRINKING WATER SUPPLY SYSTEMS AND WASTEWATER SYSTEMS - QUALITY CRITERIA OF THE SERVICE AND PERFORMANCE INDICATORS (TC 224)

ISO/DIS 24516-1, Guidelines for Management of Assets of water supply and wastewater systems - Part 1: Drinking water distribution networks - 6/9/2015

SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO/DIS 13073-3, Ships and marine technology - Risk assessment on anti-fouling systems on ships - Part 3: Human health risk assessment of biocidally active substances in anti-fouling paints on ships during the application and removal process - 6/8/2015, $107.00

TEXTILES (TC 38)

ISO/DIS 14362-1, Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres - 6/8/2015

ISO/DIS 14362-3, Textiles - Methods for determination of certain aromatic amines derived from azo colorants - Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene - 6/8/2015

THERMAL INSULATION (TC 163)

ISO/DIS 10211, Thermal bridges in building construction - Heat flows and surface temperatures - Detailed calculations - 6/8/2015, $125.00

ISO/DIS 13786, Thermal performance of building components - Dynamic thermal characteristics - Calculation methods - 6/8/2015, $71.00

ISO/DIS 13789, Thermal performance of buildings - Transmission and ventilation heat transfer coefficients - Calculation method - 6/8/2015, $82.00

TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

ISO 11450/DAmd1, Equipment for harvesting and conservation - Round balers - Terminology and commercial specifications - Amendment 1 - 6/12/2015, $29.00

ISO/DIS 3767-2, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Symbols for operator controls and other displays - Part 2: Symbols for agricultural tractors and machinery - 6/12/2015

ISO/DIS 3767-3, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Symbols for operator controls and other displays - Part 3: Symbols for powered lawn and garden equipment - 6/12/2015

ISO/DIS 3767-4, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Symbols for operator controls and other displays - Part 4: Symbols for forestry machinery - 6/12/2015

ISO/DIS 3767-5, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment - Symbols for operator controls and other displays - Part 5: Symbols for manual portable forestry machines - 6/12/2015

Newly Published ISO Standards

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

AIR QUALITY (TC 146)

ISO 19289:2015, Air quality - Meteorology - Siting classifications for surface observing stations on land, $123.00

AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO 16694:2015, Space systems - The measured parameters at firing bench and flight tests of liquid rocket engines, $123.00

ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

ISO 80601-2-13/Amd1:2015, Medical electrical equipment - Part 2-13: Particular requirements for basic safety and essential performance of an anaesthetic workstation - Amendment 1, $22.00

BANKING AND RELATED FINANCIAL SERVICES (TC 68)

ISO 9564-1/Amd1:2015, Financial services - Personal Identification Number (PIN) management and security - Part 1: Basic principles and requirements for PINs in card-based systems - Amendment 1, $22.00

BASES FOR DESIGN OF STRUCTURES (TC 98)

ISO 2394:2015, General principles on reliability for structures, $265.00

FIRE SAFETY (TC 92)

ISO 16405:2015, Room corner and open calorimeter - Guidance on sampling and measurement of effluent gas production using FTIR technique, $123.00

FLUID POWER SYSTEMS (TC 131)

ISO 6953-1:2015, Pneumatic fluid power - Compressed air pressure regulators and filter-regulators - Part 1: Main characteristics to be included in literature from suppliers and product-marking requirements, $88.00

ISO 6953-2:2015, Pneumatic fluid power - Compressed air pressure regulators and filter-regulators - Part 2: Test methods to determine the main characteristics to be included in literature from suppliers, $173.00

HEALTH INFORMATICS (TC 215)

ISO/IEEE 11073-20601/Amd1:2015, Health informatics - Personal health device communication - Part 20601: Application profile - Optimized exchange protocol - Amendment 1, $265.00

ISO/IEEE 11073-30200/Amd1:2015, Health informatics - Point-of-care medical device communication - Part 30200: Transport profile - Cable connected - Amendment 1, $200.00

ISO/IEEE 11073-00103:2015, Health informatics - Personal health device communication - Part 00103: Overview, $240.00

ISO/IEEE 11073-10441:2015, Health informatics - Personal health device communication - Part 10441: Device specialization - Cardiovascular fitness and activity monitor, $265.00

ISO/IEEE 11073-10442:2015, Health informatics - Personal health device communication - Part 10442: Device specialization - Strength fitness equipment, $200.00

MACHINE TOOLS (TC 39)

ISO 1985:2015, Machine tools - Test conditions for surface grinding machines with vertical grinding wheel spindle and reciprocating table - Testing of the accuracy, $149.00

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

ISO 15589-1:2015, Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline systems - Part 1: On-land pipelines, $240.00

OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO 14132-4:2015, Optics and photonics - Vocabulary for telescopic systems - Part 4: Terms for astronomical telescopes, $51.00

PACKAGING (TC 122)

ISO 17480:2015, Packaging - Accessible design - Ease of opening, $200.00

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

ISO 4427-1/Amd1:2015, Plastics piping systems - Polyethylene (PE) pipes and fittings for water supply - Part 1: General - Amendment 1: Melt mass-flow rate (MFR) for PE 80 and PE 100, $22.00

ISO 3501:2015, Plastics piping systems - Mechanical joints between fittings and pressure pipes - Test method for resistance to pull-out under constant longitudinal force, $51.00

ISO 7509:2015, Plastics piping systems - Glass-reinforced thermosetting plastics (GRP) pipes - Determination of time to failure under sustained internal pressure, $88.00

ISO 13951:2015, Plastics piping systems - Test method for the resistance of plastic pipe/pipe or pipe/fitting assemblies to tensile loading, $51.00

SHIPS AND MARINE TECHNOLOGY (TC 8)

ISO 17941:2015, Ships and marine technology - Hydraulic hinged watertight fireproof doors, $88.00

TEXTILES (TC 38)

ISO 1136:2015, Wool - Determination of mean diameter of fibres - Air permeability method, $123.00

TOURISM AND RELATED SERVICES (TC 228)

ISO 17680:2015, Tourism and related services - Thalassotherapy - Service requirements, $149.00

WATER QUALITY (TC 147)

ISO 17690:2015, Water quality - Determination of available free cyanide (pH 6) using flow injection analysis (FIA), gas-diffusion and amperometric detection, $88.00

WELDING AND ALLIED PROCESSES (TC 44)

ISO 23277:2015, Non-destructive testing of welds - Penetrant testing - Acceptance levels, $51.00

ISO Technical Reports

BIOLOGICAL EVALUATION OF MEDICAL AND DENTAL MATERIALS AND DEVICES (TC 194)

ISO/TR 10993-33:2015, Biological evaluation of medical devices - Part 33: Guidance on tests to evaluate genotoxicity - Supplement to ISO 10993-3, $200.00

MACHINE TOOLS (TC 39)

ISO/TR 16907:2015, Machine tools - Numerical compensation of geometric errors, $173.00

ROAD VEHICLES (TC 22)

ISO/TR 14645:2015, Road vehicles - Test procedures for evaluating child restraint system interactions with deploying air bags, $123.00

ISO Technical Specifications

BUILDING CONSTRUCTION (TC 59)

ISO/TS 21929-2:2015, Sustainability in building construction - Sustainability indicators - Part 2: Framework for the development of indicators for civil engineering works, $173.00

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

ISO/TS 16901:2015, Guidance on performing risk assessment in the design of onshore LNG installations including the ship/shore interface, $240.00

TECHNICAL SYSTEMS AND AIDS FOR DISABLED OR HANDICAPPED PERSONS (TC 173)

ISO/TS 16840-12:2015, Wheelchair seating - Part 12: Apparatus and method for cushion envelopment testing, $123.00

TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)

ISO/TS 21219-3:2015, Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 3: UML to binary conversion rules, $123.00

ISO/TS 21219-4:2015, Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 4: UML to XML conversion rules, $200.00

ISO/TS 21219-5:2015, Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 5: Service framework (TPEG2-SFW), $200.00

ISO/TS 21219-6:2015, Intelligent transport systems - Traffic and travel information via transport protocol experts group, generation 2 (TPEG2) - Part 6: Message management container (TPEG2-MMC), $123.00

ISO/TS 21219-18:2015, Intelligent transport systems - Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2) - Part 18: Traffic flow and prediction application (TPEG2-TFP), $200.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 17991:2015, Information technology - Office equipment - Method for Measuring Scanning Productivity of Digital Multifunctional Devices, $173.00

ISO/IEC 27043:2015, Information technology - Security techniques - Incident investigation principles and processes, $173.00

ISO/IEC 15459-2:2015, Information technology - Automatic identification and data capture techniques - Unique identification - Part 2: Registration procedures, $51.00

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

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

Comment Deadline: April 13, 2015

The Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), an ANSI organizational member and Accredited Standards Developer, has submitted an Application for Accreditation for a proposed U.S. Technical Advisory Group (TAG) to ISO TC 173, Assistive products for persons with disability and a request for approval as TAG Administrator. The proposed TAG will operate using the Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities as contained in Annex A of the ANSI International Procedures.

For additional information, or to offer comments, please contact: Ms. Yvonne Meding, Secretary, Assistive Technology Standards Board, RESNA, 1700 N. Moore Street, Suite 1540, Arlington, VA 22209-1903; phone: 703.524.6686 ext. 403; email: ymeding@resna.org. Please forward any comments on this application to RESNA, with a copy to the Recording Secretary, ExSC in ANSI's New York Office (fax: 212.840-2298; Email: jthompso@ansi.org) by April 13, 2015.

Approval of Accreditation as an ANSI ASD

University of Texas Medical Branch (UTMB)

ANSI's Executive Standards Council has approved the University of Texas Medical Branch (UTMB), an ANSI Organizational Member, as an ANSI Accredited Standards Developer (ASD) under its proposed operating procedures for documenting consensus on UTMB-sponsored American National Standards, effective March 4, 2015. For additional information, please contact: Lee S. Webster, JD-MBA, SPHR, GPHR, Director, Talent Acquisition and Recruitment, University of Texas Medical Branch, 2200 Market Street, Room 1.300, Galveston, TX 77550-0001; phone: 409.747.4867; e-mail: lswebste@utmb.edu.

Approvals of Reaccreditations

American Brush Manufacturers Association

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the American Brush Manufacturers Association, an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on ABMA-sponsored American National Standards, effective March 6, 2015. For additional information, please contact: Mr. David Parr, Executive Director, American Brush Manufacturers Association, 736 Main Avenue, Suite 7, Durango, CO 81301-5479; phone: 630.258.4771; e-mail: dparr@abma.org.

Automotive Lift Institute, Inc.

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the Automotive Lift Institute, Inc., an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on ALI-sponsored American National Standards, effective March 5, 2015. For additional information, please contact: Ms. Heather Almeida, Administrative Manager, Automotive Lift Institute, Inc., P.O. Box 85, Cortland, NY 13045; phone: 607.756.7775; e-mail: heather@autolift.org.

Building Performance Institute, Inc. (BPI)

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the Building Performance Institute, Inc. (BPI), an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on BPI-sponsored American National Standards, effective March 5, 2015. For additional information, please contact: Ms. Susan Carson, Manager of Standards, Building Performance Institute, Inc., 107 Hermes Road, Suite 110, Malta, NY 12020; phone: 518.899.2727; e-mail: scarson@bpi.org.

IREC – The Interstate Renewable Energy Council, Inc.

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of IREC – The Interstate Renewable Energy Council, Inc., an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on IREC-sponsored American National Standards, effective March 11, 2015. For additional information, please contact: Ms. Laure-Jeanne Davignon, Director of Credentialing Program, Interstate Renewable Energy Council, 125 Wolf Road, Suite 404, Albany, NY 12205; phone: 518.578.4718; e-mail: laurejeanne@irecusa.org.

MTS – The Institute for Market Transformation to Sustainability

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of MTS – The Institute for Market Transformation to Sustainability, an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on MTS-sponsored American National Standards, effective March 5, 2015. For additional information, please contact: Mr. Michael Italiano, CEO, Institute for Market Transformation to Sustainability, 1511 Wisconsin Avenue, NW, Washington, DC 20007; phone: 202.338.3131; e-mail: MTS@sustainableproducts.com.

Outdoor Power Equipment Institute (OPEI)

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of the Outdoor Power Equipment Institute (OPEI), an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on OPEI-sponsored American National Standards, effective March 11, 2015. For additional information, please contact: Mr. Gerry Coons, Vice President, Industry Affairs, Outdoor Power Equipment Institute, 341 South Patrick Street, Alexandria, VA 22314; phone: 703.549.7905; e-mail: gcoons@opei.org.

RIMS, The Risk Management Society

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of RIMS, the risk management society, an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on RIMS-sponsored American National Standards, effective March 5, 2015. For additional information, please contact: Mr. Nathan Bacchus, Sr. Government Affairs Manager, RIMS, the risk management society, 1065 Avenue of the Americas, 13th Floor, New York, NY 10018; phone: 212.655.6215; e-mail: nbacchus@rims.org.

TUV Rhineland PTL

At the direction of ANSI's Executive Standards Council (ExSC), the reaccreditation of TUV Rheinland PTL, an ANSI organizational member, has been approved under its recently revised operating procedures for documenting consensus on TUV Rheinland PTL-sponsored American National Standards, effective March 11, 2015. For additional information, please contact: Mr. Jerry Novacek, Quality Control/Lab/SDO Manager, TUV Rheinland PTL, 2210 South Roosevelt Street, Tempe, AZ 85282; phone: 480.966.1700; e-mail: JNovacek@us.tuv.com.

Reaccreditation

IEEE

Comment Deadline: April 13, 2015

IEEE, an ANSI Organizational Member, has submitted revisions to its currently accredited IEEE-SA Standards Board Operating Manual and its IEEE-SA Standards Board Bylaws for documenting consensus on IEEE-sponsored American National Standards, under which it was last reaccredited in 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. David Ringle, Director, Governance & Technical Committee Programs, IEEE Standards Association, 445 Hoes Lane, Piscataway, NJ 08854-4141; phone: 732.562.3806; E-mail: d.ringle@ieee.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 IEEE by April 13, 2015, with a copy to the ExSC Recording Secretary in ANSI's New York Office (E-mail: Jthompso@ANSI.org).

Scope of ASD Accreditation

SAE International

Comment Deadline: April 13, 2015

SAE International, an ANSI Accredited Standards Developer (ASD) and ANSI organizational member, has requested an update of its informational scope of standards activity on file with ANSI. SAE International's revised scope is as follows:

> SAE International is recognized as the world's largest mobility standards setting body. We maintain an online database of 35,000+ standards, which includes 10,000 active and 25,000 historical standards. SAE's Standards, Recommended Practices, and Information Reports are utilized globally and contribute to the improvement of the overall performance, convenience, and safety in the following sectors: aerospace, automotive, commercial vehicles, off-road machinery, specialized vehicles, materials, fuels and lubes.

Any comments or questions related to the revised scope should be submitted by April 13, 2015 to: Mr. Jack Pokrzywa, Director, SAE International, 755 West Big Beaver Road, Suite 1600, Troy, MI 48084; phone: 248.273.2455; email: jackp@sae.org (please copy psa@ansi.org).

International Organization for Standardization (ISO)

New Field of ISO Technology

Waste Management, Recycling and Road Operation Service

Comment Deadline: April 17, 2015

DIN (Germany) has submitted to ISO a proposal for a new field of ISO technical activity on the subject of Waste Management, Recycling and Road Operation Service, with the following scope statement:

> Standardization of equipment for waste management, recycling, public cleaning and road operation. Taking into particular account technical and logistical aspects. Drafting of International Standards for products and procedures as well as safety requirements for the collection, transport, storage and transfer of solid and liquid waste.
>
> Sludge recovery, treatment and disposal and also water re-use are not covered by the scope of this ISO/TC, but are handled e.g. in ISO/TC 275 and ISO/TC 282.
>
> Exclusion: General environmental management (e.g., ISO 14000) and road traffic safety management systems aspects (e.g., ISO 39001), are to be handled by ISO/TC 207 and ISO/TC 241.

Anyone wishing to review this new proposal can request a copy by contacting ANSI's ISO Team via email: isot@ansi.org with submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, April 17, 2015.

U.S. Technical Advisory Groups

Approvals of Reaccreditations

U.S. TAG to ISO TC 23/SCs 13 – Powered Lawn and Garden Equipment, and 17 – Manually Portable Forest Machinery

At the direction of ANSI's Executive Standards Council, the reaccreditation of the U.S. Technical Advisory Group to ISO TC 23/SCs 13, Powered lawn and garden equipment and 17, Manually portable forest machinery under its recently revised operating procedures (i.e. incorporating the new ANSI anti-trust policy requirement) has been approved, effective March 11, 2015. For additional information, please contact the TAG Administrator: Mr. Greg Knott, Vice President, Regulatory Affairs, Outdoor Power Equipment Institute, 341 South Patrick Street, Alexandria, VA 22314; phone: 703.549.7600; e-mail: GKnott@OPEI.org.

U.S. TAG to ISO TC 242 – Energy Management

At the direction of ANSI's Executive Standards Council, the reaccreditation of the U.S. Technical Advisory Group to ISO TC 242, Energy management under its recently revised operating procedures (i.e. incorporating the new ANSI anti-trust policy requirement) has been approved, effective March 5, 2015. For additional information, please contact the TAG Administrator: Ms. Deann Desai, Secretary/Administrator for the US TAG to ISO/TC 242, Georgia Tech Energy & Sustainability Services, 1050 Willow Ridge, Athens, GA 30606; phone: 770.605.4474; e-mail: deann.desai@gatech.edu.

U.S. TAG to ISO TC 257 – Energy Savings

At the direction of ANSI's Executive Standards Council, the reaccreditation of the U.S. Technical Advisory Group to ISO TC 257, Energy savings under its recently revised operating procedures (i.e. incorporating the new ANSI anti-trust policy requirement) has been approved, effective March 6, 2015. For additional information, please contact the TAG Administrator: Ms. Deann Desai, Secretary/Administrator for the US TAG to ISO/TC 257, Georgia Tech Energy & Sustainability Services, 1050 Willow Ridge, Athens, GA 30606; phone: 770.605.4474; e-mail: deann.desai@gatech.edu.

Reaccreditation

U.S. TAG to ISO TC 92 – Fire Safety

Comment Deadline: April 13, 2015

The U.S. Technical Advisory Group (TAG) to ISO Technical Committee 92, Fire safety has submitted to ANSI revisions to procedures under which it was originally accredited (Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities as contained in Annex A of the ANSI International Procedures). As the revisions appear to be substantive in nature, the reaccreditation process is initiated.

To obtain a copies of the revised procedures or to offer comments, please contact the TAG Administrator to the US TAG to ISO/TC 92: Mr. Tom O'Toole, Manager, TCO Division, ASTM, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959; phone: 610.832.9739; e-mail: totoole@astm.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 ASTM by April 13, 2015, with a copy to the ExSC Recording Secretary in ANSI's New York Office (jthompso@ANSI.org).

Meeting Notices

ASC/OP Task Force Meetings

Task Force 1 – Optical Glass

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) Task Force 1 (Optical Glass) will meet by teleconference on May 13th at 11:00 EDT. Contact Hal Johnson for information at hal_f_johnson@sbcglobal.net.

Task Force 3 – Wavefront Measurement

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) Task Force 3 (Wavefront Measurement) will meet in conjunction with SPIE Defense and Security Symposium, in Baltimore, MD on April 23, at 14:30 EDT Contact Peter Takacs for more information at takacs@bnl.gov.

Task Force 4 – Drawing Notations

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) Task Force 4 (Drawing Notations) will meet by teleconference on May 20th at 11:00 EDT. Contact Dave Aikens for information at daikens@optstd.org.

Task Force 5 – Aspheric Optics

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) Task Force 5 (Aspheric Optics) will meet by teleconference on March 10th at 11:00 EDT. Contact Rich Youngworth for information at ryoungworth@riyo-llc.com.

Task Force 6 – IR Materials

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) Task Force 6 (IR Materials) will meet in conjunction with SPIE Defense and Security Symposium, in Baltimore, MD on April 22, at 08:00 EDT. Contact Adam Phenis for information at amphenis@gmail.com.

Task Force 7 – Laser Damage

Optics and Electro-Optics Standards Council, American Standards Committee for Optics (ASC/OP) is in the process of forming a new Task Force 7 (Laser Damage), and plans to hold an information meeting in conjunction with SPIE Defense and Security Symposium, in Baltimore, MD on April 22, at 12:00 EDT. Contact Dave Aikens for information at daikens@optstd.org.

Information Concerning

ANSI Accreditation Program for Third Party Product Certification Agencies

Accreditation in Accordance with ISO/IEC 17065

UL Verification Services, Inc.

Comment Deadline: April 13, 2015

On March 10, 2015, UL Verification Services, Inc. was granted Accreditation in accordance with ISO/IEC 17065 for the following scopes:

FCC (A1) Unlicensed Radio Frequency Devices
FCC (A2) Unlicensed Radio Frequency Devices
FCC (A3) Unlicensed Radio Frequency Devices
FCC (A4) Unlicensed Radio Frequency Devices
FCC (B1) Licensed Radio Frequency Devices
FCC (B2) Licensed Radio Frequency Devices
FCC (B3) Licensed Radio Frequency Devices
FCC (B4) Licensed Radio Frequency Devices

Radio Scope 1 – Licence-exempt Radio Frequency Devices
Radio Scope 2 – Licensed Personal Mobile Radio Services
Radio Scope 3 – Licensed General Mobile and Fixed Radio Services
Radio Scope 4 – Licensed Maritime and Aviation Radio Services
Radio Scope 5 – Licensed Fixed Microwave Radio Services

B. Japan MIC Radio Law
B1. Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 1 of the Radio Law
B2. Specified Radio Equipment specified in Article 38-2-2, paragraph 1, item 2 of the Radio Law

Technical Specifications for Radio-Communication Equipment
iDA TS AR
iDA TS CBS
iDA TS CMT
iDA TS CT-CTS
iDA TS LMR
iDA TS RPG
iDA TS SRD
iDA TS UWB
iDA TS WBA

Please send your comments by April 13, 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, Sr. 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.

Information Concerning

U.S. National Committee of the IEC

USNC Needs Representative to join IEC SMB Systems Evaluation Group (SEG 5) for Electrotechnology for Mobility

In 2012, the IEC formed a Strategic Group (SG) for Electrotechnology for Mobility, IEC SMB SG 6. IEC SG 6 developed a roadmap that identified the standards and standards' needs for e-mobility. The group also recommended the formation of a new Systems Evaluation Group (SEG) addressing Electrotechnology for Mobility. SEG 5 has been formed, with the following scope:

- evaluate the interaction between plug-in electric vehicles and the electricity supply infrastructure and propose an IEC approach for the development of e-mobility standards;
- its mission is to determine the best solution (in terms of safety, interoperability and system performance), for the future work of systems level standards for electric vehicles within the IEC
- this includes close synchronization and coordination with automobile manufacturers and suppliers, ISO/TC 22, IEC SyC on Smart Energy, IEC SEG 1 Smart Cities, applicable IEC TCs and SCs, fora and consortia.

SEG 5 will take into account the roadmap included with SG 6's final report to the SMB.

If you are interested in becoming the USNC Representative to this SEG, please contact Tony Zertuche, USNC Deputy General Secretary, Tel: 212 642 4892, E-Mail: tzertuche@ansi.org.

For more information on SEG 5 *Electrotechnology for Mobility* or for those individuals with an interest in participating directly with the SEG, you may do so at this link: http://www.iec.ch/dyn/www/f?p=103:186:0::::FSP_ORG_ID,FSP_LANG_ID:11902,25

BSR/ASHRAE Addendum o
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum o to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 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 ASHRAE 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 addendum revises Section 9.9.2 Units, to require new refrigerant Applicants to submit Refrigerant Designation Data required for Section 9.5.2 in both SI and Inch-Pound (IP) units.

[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 o to 34-2013

Revise section 9.9.2 as follows:

9.9.2 Units. Applications shall be submitted either in SI (metric) units or in dual units (SI and inch-pound [I-P]). Refrigerant Designation Data for Section 9.5.2 shall be submitted in both SI and inch-pound [I-P] units.

BSR/ASHRAE Addendum p
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum p to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 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 addendum adds the zeotropic refrigerant blend R-453A, 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 34,000 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 p 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 = 453A
Composition (Mass %) = R-32/125/134a/227ea/600/601a (20.0/20.0/53.8/5.0/0.6/0.6)
Composition tolerances = ±1.0/±1.0/±1.0/±0.5/+0.1,-0.2/+0.1,-0.2)
OEL = 1000
Safety Group = A1
RCL = 34,000 ppm v/v; 7.8 lb/Mcf; 120 g/m^3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends

Refrigerant Number = 453A
Composition (Mass %) = R-32/125/134a/227ea/600/601a (20.0/20.0/53.8/5.0/0.6/0.6)
Average Molecular Mass = 88.78 g/mol
Bubble Point (°F) = -44.0
Dew Point (°F) = -31.0
Bubble Point (°C) = -42.2
Dew Point (°C) = -35.0

BSR/ASHRAE Addendum q
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum q to Standard 34-2013, Designation and Safety Classification of Refrigerants

First Public Review (March 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 addendum adds the zeotropic refrigerant blend R-449B, 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 850 ppm v/v. The recommended ATEL is 100,000 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 q 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 = 449B
Composition (Mass %) = R-32/125/1234yf/134a (25.2/24.3/23.2/27.3)
Composition tolerances = +0.3,-1.5/+1.5,-0.3/+0.3,-1.5/+1.5,-0.3)
OEL = 850
Safety Group = A1
RCL = 100,000 ppm v/v; 23lb/Mcf; 370 g/m^3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends

Refrigerant Number = 449B
Composition (Mass %) = R-32/125/1234yf/134a (25.2/24.3/23.2/27.3)
Average Molecular Mass = 86.4 g/mol
Bubble Point (°F) = -51.0
Dew Point (°F) = -40.4
Bubble Point (°C) = -46.1
Dew Point (°C) = -40.2

BSR/ASHRAE Addendum r
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum r to Standard 34-2013, Designation and Safety Classification of Refrigerants

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

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-1336mzz(Z), to Table 4-1, Table D-1 and Table E-1. The recommended flammability classification is 1. The recommended toxicity classification A is based on an adopted OEL of 500 ppm v/v. The recommended ATEL is 13,000 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 r to 34-2013

Add the following underlined data to Table 4-1, Table D-1 and Table E-1 in the columns indicated.

TABLE 4-1 Refrigerant Data and Safety Classifications

Refrigerant Number = 1336mzz(Z)
Chemical Name = cis-1,1,1,4,4,4-hexafluoro-2-butene
Chemical Formula = CF3CHCHCF3
OEL = 500
Safety Group = A1
RCL = 13,000 ppm v/v; 5.4 lb/Mcf; 87 g/m3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-1 Refrigerant Data

Refrigerant Number = 1336mzz(Z)
Chemical Name = cis-1,1,1,4,4,4-hexafluoro-2-butene
Chemical Formula = CF3CHCHCF3
Molecular Mass = 164.06
Normal Boiling Point = 91.4°F; 33.4 °C

TABLE E-1 Toxicity Table

Refrigerant R-1336mzz(Z)
Chemical Name= cis-1,1,1,4,4,4-hexafluoro-2-butene
LC50 = 102,900
Cardiac
LOEL = 25,000
NOEL = 12,500

Anesthesia
EC50 = ND
LOEL= ND
NOEL= 102,900
Other = ND
ATEL= 13,000
ODL= 140,000
FCL= -
RCL= 13,000
LFL= -
ATEL Source = 100% cardiac NOEL
RCL Source =ATEL

BSR/ASHRAE Addendum s
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum s to Standard 34-2013, Designation and Safety Classification of Refrigerants

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

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-454A, to Table 4-2 and Table D-2. The recommended flammability classification 2L is based on an LFL of 6.3 vol. %, a heat of combustion of 10,040 kJ/kg (4,316 BTU/lb), and a burning velocity of 2.4 cm/s. The recommended toxicity classification A is based on an adopted OEL of 690 ppm v/v. The recommended ATEL is 140,000 ppm v/v.

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Addendum s 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 = 454A
Composition (Mass %) = R-32/1234yf (35.0/65.0)
Composition tolerances = +2.0/-2.0,+2.0/-2.0)
OEL = 690
Safety Group = A2L
RCL = 16,000ppm v/v; 28lb/Mcf; 450 g/m^3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends

Refrigerant Number = 454A
Composition (Mass %) = R-32/1234yf (35.0/65.0)
Average Molecular Mass = 80.5
Bubble Point (°F) = -55.1
Dew Point (°F) = -42.9
Bubble Point (°C) = -48.4
Dew Point (°C) = -41.6

BSR/ASHRAE Addendum t
to ANSI/ASHRAE Standard 34-2013

First Public Review Draft

Proposed Addendum t to Standard 34-2013, Designation and Safety Classification of Refrigerants

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(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This addendum adds the zeotropic refrigerant blend R-454B, to Table 4-2 and Table D-2. The recommended flammability classification 2L is based on an LFL of 7.7 vol. %, a heat of combustion of 10,045 kJ/kg (4,391 BTU/lb), and a burning velocity of 5.2 cm/s. The recommended toxicity classification A is based on an adopted OEL of 850 ppm v/v. The recommended ATEL is 170,000 ppm v/v.

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Addendum t 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 = 454B
Composition (Mass %) = R-32/1234yf (68.9/31.1)
Composition tolerances = +1.0/-1.0,+1.0/-1.0
OEL = 850
Safety Group = A2L
RCL = 170,000 ppm v/v; 22lb/Mcf; 360 g/m^3
Highly Toxic or Toxic Under Code Classification = Neither

TABLE D-2 Data for Refrigerant Blends

Refrigerant Number = 454B
Composition (Mass %) = R-32/1234yf (68.9/31.1)
Average Molecular Mass = 62.6 g/mol
Bubble Point (°F) = -59.6
Dew Point (°F) = -58.0
Bubble Point (°C) = -50.9
Dew Point (°C) = -50.0

BSR/ASHRAE/IES Addendum ah
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum ah to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

Second Public Review (March 2015)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

Many buildings are constructed with dedicated emergency power risers. It has become common practice to have lighting that is connected to these circuits run 24 hours a day. This proposal is intended to ensure that it is clear that all lighting including night lights shall be turned off when the space is unoccupied with an allowance for security and safety reasons.

This allowance was determined by multiplying the percentage of floor area expected to have egress lighting (based on the building area dataset used in the calculation of building area LPDs) by 0.1 W/ft2 which is the value found in the Standard 189.1 to be used only for security and egress areas.

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Addendum ah to 90.1-2013

Modify the standard as follows (IP and SI Units)

9.4.1.1 Interior Lighting Controls…….

……

h. *Automatic full OFF*: All lighting shall be automatically shut off within 20 minutes of all occupants leaving the space. A control device meeting this requirement shall control no more than 5000 ft2.

Exceptions: The following lighting is not required to be automatically shut off:

1. General lighting and task lighting in shop and laboratory classrooms
2. General lighting and task lighting in spaces where automatic shutoff would endanger the safety or security of room or building occupants
3. Lighting required for 24/7 operation
4. Lighting load not exceeding 0.02 W/ft^2 (0.22 W/m^2) multiplied by the gross lighted area of the building.

i. Scheduled shutoff: All lighting in the space ~~not exempted by Exception (1) to Section 9.1.1~~ shall be automatically shut off during periods when the space is scheduled to be unoccupied using…….
…….

Exceptions: The following lighting is not required to be on scheduled shutoff:

1. Lighting in spaces where lighting is required for 24/7 continuous operation
2. Lighting in spaces where patient care is rendered
3. Lighting in spaces where automatic shutoff would endanger the safety or security of the room or building occupants
4. Lighting load not exceeding 0.02 W/ft^2 (0.22 W/m^2) multiplied by the gross lighted area of the building.

BSR/ASHRAE/IES Addendum aj
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum aj to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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

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FOREWORD

Relief and return fans are not well addressed by the Standard. It is possible to have fans that have on/off cycling control which results in very poor building pressure control: before the fan comes on, building pressure can be excessive and once it comes on, the building can be pulled negative. This can cause building operators to disable the economizer to avoid these problems. The cost of adding modulating building pressure control is relatively small: the motor can be an ECM or have a VFD and a building pressure sensor is inexpensive. The ½ HP exception is intended to exempt small systems (e.g. less than 5 tons) for which cycling relief fans is less problematic and might be cost prohibitive.

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Addendum aj to 90.1-2013

Modify the standard as follows (IP and SI Units)

6.5.3.2.1 Supply Fan Airflow Control. Each cooling system listed in Table 6.5.3.2.1 shall be designed to vary the ~~indoor~~ supply fan airflow as a function of load and shall comply with the following requirements:

Add the following new new section:

6.5.3.2.4 Return and relief fan control. Return and relief fans used to meet Section 6.5.1.1.5 shall comply with all of the following:

a. Relief air rate shall be controlled to maintain building pressure directly or indirectly through differential supply-return airflow tracking. Systems with constant speed or multi- speed supply fans shall also be allowed to control the relief system based on outdoor air damper position.

b. Fans shall have variable-speed control or other devices that will result in total return/relief fan system demand of no more than 30% of total design power at 50% of total design fan flow.

Exceptions:

1. Return or relief fans with total motor size less than or equal to 0.5 HP (38 kW)
2. Staged relief fans with a minimum of four stages.

BSR/ASHRAE/IES Addendum al
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum al to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposal establishes air leakage criteria for metal coiling doors where previously there were no criteria.

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Addendum al to 90.1-2013

Modify the standard as follows (IP and SI Units)

5.4.3.2 Fenestration and Doors. Air leakage for fenestration and doors shall be determined in accordance with AAMA/WDMA/CSA 101/I.S.2/A440, NFRC 400, or ASTM E283 as specified below. Air leakage shall be determined by a laboratory accredited by a nationally recognized accreditation organization, such as the National Fenestration Rating Council, and shall be labeled and certified by the manufacturer. Air leakage shall not exceed:

a. 1.0 cfm/ft^2 for glazed swinging entrance doors and revolving doors, tested at a pressure of at least 1.57 psf in accordance with AAMA/WDMA/CSA 101/I.S.2/A440, NFRC 400, or ASTM E283;
b. 0.06 cfm/ft^2 for curtainwall and storefront glazing, tested at a pressure of at least 1.57 psf or higher in accordance with NFRC 400 or ASTM E283;
c. 0.3 cfm/ft^2 for unit skylights having condensation weepage openings, tested at a pressure of at least 1.57 psf in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 or NFRC 400, or 0.5 cfm/ft^2 tested at a pressure of at least 6.24 psf in accordance with AAMA/WDMA/CSA 101/I.S.2/A440;
d. 1.3 cfm/ft^2 for nonswinging doors intended for vehicular access and material transportation, with a minimum opening rate of 32 in./s, tested at a pressure of at least 1.57 psf or higher in accordance with ANSI/DASMA 105, NFRC 400, or ASTM E283.
e. 0.4 cfm/ft^2 for other nonswinging opaque doors, glazed sectional garage doors, and upward acting nonswinging glazed doors tested at a pressure of at least 1.57 psf or higher in accordance with ANSI/DASMA 105, NFRC 400, or ASTM E283; and
f. 0.2 cfm/ft^2 for all other products tested at a pressure of at least 1.57 psf in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 or NFRC 400, or 0.3 cfm/ft^2 tested at a pressure of at least 6.24 psf in accordance with AAMA/WDMA/CSA 101/I.S/A440.

Exceptions:

1. Field-fabricated fenestration and doors
2. Air leakage shall not exceed 1.0 cfm/ft^2 (7.3 m^3/h × m^2) when tested at a pressure of at least 1.57 psf (75 Pa) or higher in accordance with ANSI/DASMA 105, NFRC 400, or ASTM E283 for m~~M~~etal coiling doors in semiheated spaces in Climate Zones 1 through 6.
3. Products in buildings that comply with a whole building air leakage rate of 0.4 cfm/ft^2 (under a pressure differential of 0.3 in. H_2O, 1.57 psf) when tested in accordance with ASTM E 779

BSR/ASHRAE/IES Addendum am
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum am to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposal 1) increases the parking garage lighting reduction in response to no occupancy from 30% to 50%, 2) specifies a 50% reduction in lighting power in response to the presence of daylighting, and 3) removes a duplicate exemption.

These changes will increase energy savings. The changes will not increase costs because the reduction control is already required and therefore no cost analysis is needed.

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Addendum am to 90.1-2013

Modify the standard as follows (IP and SI Units) requirements not shown from the list of 9.4.1.2 remain unchanged

9.4.1.2 Parking Garage Lighting Control. Lighting for parking garages shall comply with the following requirements:

……

……

b. Lighting power of each luminaire shall be automatically reduced by a minimum of ~~30%~~50% when there is no activity detected within a lighting zone for 20 minutes. Lighting zones for this requirement shall be no larger than 3600 ft^2.

~~**Exceptions:** The following areas are exempt:~~

~~1. Daylight transitions zones and ramps without parking~~

……

……

d. The power to luminaires within 20 ft of any perimeter wall structure that has a net opening-to-wall ratio of at least 40% and no exterior obstructions within 20 ft, shall be automatically reduced in response to daylight by at least 50%.

Exceptions: Lighting in the following areas is exempt:

1. Lighting in daylight transitions zones and ramps without parking

BSR/ASHRAE/IES Addendum an
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum an to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposal removes mandatory local control from restrooms and stairwells. Local control can still be installed when desired. Local manual on-off control is rarely used in most commercial building restrooms and may in some cases safety concerns and is therefore nor loner mandated. Local control in enclosed stairwells is also rarely installed in especially in multi-story buildings for safety reasons as well as issues of effective location in a multi-story stairwell. The changes will not increase costs and therefore cost analysis is not needed.

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Addendum an to 90.1-2013

Modify the standard as follows (IP and SI Units)

BSR/ASHRAE/IES Addendum an to ANSI/ASHRAE Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*
First Public Review Draft

Modify the standard as follows (IP and SI Units)

TABLE 9.6.1 Lighting Power Density Allowances Using the Space-by-Space Method and Minimum Control Requirements Using Either Method

Informative Note: This table is divided into two sections; this first section covers space types that can be commonly found in multiple building types. The second part of this table covers space types that are typically found in a single building type.			The control functions below shall be implemented in accordance with the descriptions found in the referenced paragraphs within Section 9.4.1.1. For each space type: (1) All REQs shall be implemented. (2) At least one ADD1 (when present) shall be implemented. (3) At least one ADD2 (when present) shall be implemented.								
			Local Control (See Section 9.4.1.1[a])	Restricted to Manual ON (See Section 9.4.1.1[b])	Restricted to Partial Automatic ON (See Section 9.4.1.1[c])	Bilevel Lighting Control (See Section 9.4.1.1[d])	Automatic Daylight Responsive Controls for Sidelighting (See Section 9.4.1.1[e]6)	Automatic Daylight Responsive Controls for Toplighting (See Section 9.4.1.1[f]6)	Automatic Partial OFF (See Section 9.4.1.1[g] [Full Off complies])	Automatic Full OFF (See Section 9.4.1.1[h])	Scheduled Shutoff (See Section 9.4.1.1[i])
Common Space Types[1]	LPD W/ft^2	RCR Threshold	a	b	c	d	e	f	g	h	i
Restroom											
… in a facility for the visually impaired (and not used primarily by the staff)3	1.21	8	~~REQ~~	—	—	—	REQ	REQ	—	REQ	—
… all other restrooms	0.98	8	~~REQ~~	—	—	—	REQ	REQ	—	REQ	—
Stairwell	0.69	10	~~REQ~~	---	---	REQ	REQ	REQ	REQ	ADD2	ADD2

BSR/ASHRAE/IES Addendum ao
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Public Review Draft

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FOREWORD

CE-rated computer equipment in its enclosure is immune to any charge level that a person can generate during normal activity. According to the Electrostatic Discharge Association, while it is true that dew point will affect the charge level a person can generate, if the CE-rated enclosure is open there is basically no safe humidity level at which a person will NOT create a charge that can damage circuit boards or components.

The telecommunications industry Standard for central office facilities has no restrictions on either the low or high humidity limits. Furthermore, the Electrostatic Discharge Association (ESDA) removed humidification as a primary control over electrostatic discharge in electronic manufacturing facilities (ANSI/ESDA Standard 20.20-2007) as it wasn't effective and didn't supplant the need for personal grounding.

The use of isothermal humidification methods (infrared and steam canister) to maintain humidity levels requires approximately 90% more energy than adiabatic methods. Ultrasonic, wetted media, and microdroplet spray are some examples of adiabatic humidification technologies. Water usage for adiabatic systems are also typically less than that of isothermal system.

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Addendum ao to 90.1-2013

Modify the standard as follows (IP and SI Units)
Revise Table G3.1 part 10 HVAC Systems, Baseline

10. HVAC Systems	
Proposed	Baseline
No change to current text	The HVAC system(s) in the baseline building design shall be of the type and description specified in Section G3.1.1, shall meet the general HVAC system requirements specified in Section G3.1.2, and shall meet any system-specific requirements in Section G3.1.3 that are applicable to the baseline HVAC system type(s). ~~If the proposed design includes computer room humidification then the computer room humidification system, schedules, and setpoints in the baseline building design shall be the same as in the proposed design.~~ If the proposed design includes humidification, then the baseline design shall use non-adiabatic humidification. If the proposed building design HVAC system does not comply with Section 6.5.2.4,

	then the baseline design shall use adiabatic humidification. For systems serving computer rooms, the baseline shall not have reheat for the purpose of dehumidification. Fossil fuel systems shall be modeled using natural gas as their fuel source. **Exception**: For fossil fuel systems where natural gas is not available for the proposed building site as determined by the rating authority, the baseline HVAC system(s) shall be modeled using propane as their fuel source.

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FOREWORD

When provisions were moved to section 6.5.3.2.1 for DX cooling multi-speed fan control, they were intended to apply to units with fans smaller than 5 hp; however the provisions were placed under a parent requirement that was restricted to fan systems larger than 5 hp. The intention is clear since simplified requirements include DX units down to 65,000 Btu per hour that typically have smaller fans and Section 6.3.2 refers directly to section 6.5.3.1. Fractional horsepower fan motors are also currently subject to the horsepower limit under 6.5.3.

This addendum places the scope limitation of 5 hp fans so that it applies to fan horsepower limitation and VAV reset requirements, but not to fan airflow control or fractional horsepower fan motor efficiency, and clarifies that VAV setpoint reset is required only for multiple-zone VAV systems. Fractional horsepower motors are exempt from sizing limits. A clarification is added that the fans included in the power limit are those operating at fan system design conditions. The definition of ***fan system design conditions*** *is modified to clarify that the fan peak is selected at a condition other than during economizer operation. The subsections of 6.5.3 that are under the original section limitation and included for reference.*

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Addendum ap to 90.1-2013

Modify the standard as follows

Modify the following definition in section 3 (IP and SI units):

fan system design conditions: operating conditions that can be expected to occur during normal system operation that result in the highest supply airflow rate to conditioned spaces served by the system, other than during air economizer operation.

Modify Section 6 as follows (IP units)

6.5.3 Air System Design and Control. ~~Each HVAC system having a total fan system motor nameplate hp exceeding 5 hp shall meet the provisions of Sections 6.5.3.1 through 6.5.3.5.~~

6.5.3.1 Fan System Power and Efficiency

6.5.3.1.1 Each HVAC system having a total fan system motor nameplate horsepower exceeding 5 hp at fan system design conditions shall not exceed the allowable fan system motor nameplate hp (Option 1) or fan system bhp (Option 2) as shown in Table 6.5.3.1-1. This includes supply fans, return/relief fans, exhaust fans, and fan-powered terminal units associated with systems providing heating or cooling capability that operate at fan system design conditions. Single-zone variable-air-volume systems shall comply with the constant-volume fan power limitation.

Exceptions:

1. Hospital, vivarium, and laboratory systems that utilize flow control devices on exhaust and/or return to maintain space pressure relationships necessary for occupant health and safety or environmental control may use variable-volume fan power limitation.
2. Individual exhaust fans with motor nameplate horsepower of 1 hp or less.

6.5.3.1.2 Motor Nameplate Horsepower. For each fan, the selected fan motor shall be no larger than the first available motor size greater than the bhp. The fan bhp must be indicated on the design documents to allow for compliance verification by the code official.

Exceptions:

1. For fans less than 6 bhp, where the first available motor larger than the bhp has a nameplate rating within 50% of the bhp, the next larger nameplate motor size may be selected.
2. For fans 6 bhp and larger, where the first available motor larger than the bhp has a nameplate rating within 30% of the bhp, the next larger nameplate motor size may be selected.
3. Systems complying with Section 6.5.3.1.1, Option 1.
4. Fans with motor nameplate horsepower of less than 1 hp.

6.5.3.1.3 Fan Efficiency. Fans shall have a fan efficiency grade (FEG) of 67 or higher based on manufacturers' certified data, as defined by AMCA 205. The total efficiency of the fan at the design point of operation shall be within 15 percentage points of the maximum total efficiency of the fan.

Exceptions:

1. ~~Single~~ Individual fans with a motor nameplate horsepower of 5 hp or less that are not part of a group operated as the functional equivalent of a single fan
2. Multiple fans in series or parallel (e.g., fan arrays) that have a combined motor nameplate horsepower of 5 hp or less and are operated as the functional equivalent of a single fan
3. Fans that are part of equipment listed under Section 6.4.1.1
4. Fans included in equipment bearing a third-party- certified seal for air or energy performance of the equipment package
5. Powered wall/roof ventilators (PRV)
6. Fans outside the scope of AMCA 205
7. Fans that are intended to only operate during emergency conditions

6.5.3.2 Fan Control

no changes to this section

6.5.3.2.3 VAV Setpoint Reset. For multiple-zone VAV systems having a total fan system motor nameplate horsepower exceeding 5 hp with DDC of individual zones reporting to the central control panel, static pressure setpoint shall be reset based on the zone requiring the most pressure; i.e., the setpoint is reset lower until one zone damper is nearly wide open. Controls shall provide the following:

a. Monitor zone damper positions or other indicator of need for static pressure
b. Automatically detect those zones that may be excessively driving the reset logic and generate an alarm to the system operator
c. Readily allow operator removal of zone(s) from the reset algorithm

6.5.3.3 Multiple-Zone VAV System Ventilation Optimization Control. Multiple-zone VAV systems with DDC of individual zone boxes reporting to a central control panel shall include means to automatically reduce outdoor air intake flow below design rates in response to changes in system ventilation efficiency as defined by Appendix A of ASHRAE Standard 62.1.

Exceptions:

1. VAV systems with zonal transfer fans that recirculate air from other zones without directly mixing it with outdoor air, dual-duct dual-fan VAV systems, and VAV systems with fan-powered terminal units
2. Systems required to have the exhaust air energy recovery complying with Section 6.5.6.1 3. Systems where total design exhaust airflow is more than 70% of total design outdoor air intake flow requirements

6.5.3.4 Supply Air Temperature Reset Controls. Multiple zone HVAC systems must include controls that automatically reset the supply air temperature in response to representative building loads, or to outdoor air temperature. The controls shall reset the supply air temperature at least 25% of the difference between the design supply air temperature and the design room air temperature. Controls that adjust the reset based on zone humidity are allowed. Zones that are expected to experience relatively constant loads, such as electronic equipment rooms, shall be designed for the fully reset supply temperature.

Exceptions:

1. Climate Zones 1a, 2a, and 3a
2. Systems that prevent reheating, recooling, or mixing of heated and cooled supply air.
3. Systems in which at least 75% of the energy for reheating (on an annual basis) is from site recovered or site solar energy sources

6.5.3.5 Fractional Horsepower Fan Motors. Motors for fans that are 1/12 hp or greater and less than 1 hp shall be electronically-commutated motors or shall have a minimum motor efficiency of 70% when rated in accordance with DOE 10 CFR 431. These motors shall also have the means to adjust motor speed for either balancing or remote control. Belt-driven fans may use sheave adjustments for airflow balancing in lieu of a varying motor speed.

Exceptions:

1. Motors in the airstream within fan-coils and terminal units that operate only when providing heating to the space served
2. Motors installed in space conditioning equipment certified under Section 6.4.1 3. Motors covered by Table 10.8-4 or 10.8-5

Modify Section 6 as follows (SI units)

6.5.3 Air System Design and Control. ~~Each HVAC system having a total fan system motor nameplate kW exceeding 4 kW shall meet the provisions of Sections 6.5.3.1 through 6.5.3.5.~~

6.5.3.1 Fan System Power and Efficiency

6.5.3.1.1 Each HVAC system <u>having a total fan system motor nameplate kW exceeding 4 kW</u> at fan system design conditions shall not exceed the allowable fan system motor nameplate kW (Option 1) or fan system input kW (Option 2) as shown in Table 6.5.3.1-1. This includes supply fans, return/relief fans, exhaust fans, and fan-powered terminal units associated with systems providing heating or cooling capability <u>that operate at fan system design conditions</u>. Single-zone variable-air-volume systems shall comply with the constant-volume fan power limitation.

Exceptions:

1. Hospital, vivarium, and laboratory systems that utilize flow control devices on exhaust and/or return to maintain space pressure relationships necessary for occupant health and safety or environmental control may use variable-volume fan power limitation.
2. Individual exhaust fans with motor nameplate kW of 0.75 kW or less.

6.5.3.1.2 Motor Nameplate kW. For each fan, the selected fan motor shall be no larger than the first available motor size greater than the input kW. The fan input kW must be indicated on the design documents to allow for compliance verification by the code official.

Exceptions:

1. For fans less than 4.5 input kW, where the first available motor larger than the input kW has a nameplate rating within 50% of the input kW, the next larger nameplate motor size may be selected.
2. For fans 4.5 input kW and larger, where the first available motor larger than the input kW has a nameplate rating within 30% of the input kW, the next larger nameplate motor size may be selected.
3. Systems complying with Section 6.5.3.1.1, Option 1.
4. Fans with motor nameplate kW of less than 0.75 kW.

6.5.3.1.3 Fan Efficiency. Fans shall have a fan efficiency grade (FEG) of 67 or higher based on manufacturers' certified data, as defined by AMCA 205. The total efficiency of the fan at the design point of operation shall be within 15 percentage points of the maximum total efficiency of the fan.

Exceptions:

1. ~~Single~~ Individual fans with a motor nameplate kW of 4 kW or less that are not part of a group operated as the functional equivalent of a single fan
2. Multiple fans in series or parallel (e.g., fan arrays) that have a combined motor nameplate kW of 4 kW or less and are operated as the functional equivalent of a single fan
3. Fans that are part of equipment listed under Section 6.4.1.1
4. Fans included in equipment bearing a third-party- certified seal for air or energy performance of the equipment package
5. Powered wall/roof ventilators (PRV)
6. Fans outside the scope of AMCA 205
7. Fans that are intended to only operate during emergency conditions

. . .

6.5.3.2.3 VAV Setpoint Reset. For multiple-zone VAV systems having a total fan system motor nameplate kW exceeding 4 kW with DDC of individual zones reporting to the central control panel, static pressure setpoint shall be reset based on the zone requiring the most pressure; i.e., the setpoint is reset lower until one zone damper is nearly wide open. Controls shall provide the following:

a. Monitor zone damper positions or other indicator of need for static pressure
b. Automatically detect those zones that may be excessively driving the reset logic and generate an alarm to the system operator
c. Readily allow operator removal of zone(s) from the reset algorithm

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FOREWORD

The definition that Standard 90.1 uses for effectiveness—with respect to an air-to-air heat (or energy) exchanger—in the sections listed above is different than how the term is defined by ASHRAE Standard 84, "Method of Testing Air-to-Air Heat/Energy Exchangers," and the corresponding AHRI Standard 1060, "Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation." Following is the definition of effectiveness from Standard 84.

9.2 Effectiveness

9.2.1 The effectiveness of the heat/energy exchanger shall be calculated form the following equation:

$$\varepsilon = \frac{\dot{m}_s(X_1 - X_2)}{\dot{m}_{min}(X_1 - X_3)} \qquad (30)$$

where

ε	=	sensible, latent, or total heat effectiveness
X	=	dry-bulb temperature, T, humidity ratio, W, or total enthalpy, h, respectively, at the locations indicated in Figure 1
$\dot{m}_s$	=	mass flow rate of the supply, mass of dry air per unit time
$\dot{m}_e$	=	mass flow rate of the exhaust, mass of dry air per unit time
$\dot{m}_{min}$	=	minimum value of either $\dot{m}_s$ or $\dot{m}_e$.

Standard 90.1, in Sections 3.2 and 6.5.6.1, uses a different definition for effectiveness, which does not account for the mass flow rates through the two sides of the heat exchanger:

$$\varepsilon = \frac{(X_1 - X_2)}{(X_1 - X_3)}$$

This difference in definitions causes confusion among HVAC design engineers and code officials. (The two definitions would be the same if the supply-side and exhaust-side mass flow rates were equal, but this is rarely the case.)

Since ASHRAE Standard 84 and AHRI Standard 1060 are used by the manufacturers to certify the performance of such devices, this addendum is to avoid using the term "effectiveness" in Standard 90.1, while keeping the same performance requirement ("a change in the enthalpy of the outdoor air supply equal to 50% of the difference between the outdoor air and exhaust air enthalpies at design conditions"). This can be done by replacing the term "effectiveness" with either "enthalpy recovery ratio" and "sensible energy recovery ratio" where they apply, as indicated below.

The purpose of the proposed changes to the first sentence of Section 6.5.6.1 is to make the wording consistent with the wording used in Table 6.5.6.1

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Addendum ar to 90.1-2013

Modify the standard as follows (IP and SI Units)

Modify Section 3.2:

sensible energy recovery ratio ~~effectiveness~~: change in the dry-bulb temperature of the outdoor air supply divided by the difference between the outdoor air and ~~return~~ exhaust air dry-bulb temperatures, expressed as a percentage.

enthalpy recovery ratio: change in the enthalpy of the outdoor air supply divided by the difference between the outdoor air and exhaust air enthalpy, expressed as a percentage.

Modify Section 6 as follows:

TABLE 6.5.3.1-2 Fan Power Limitation Pressure Drop Adjustment (IP)

Device	Adjustment
Credits	
…	
Energy recovery device, other than coil runaround loop	(2.2 × enthalpy ~~energy~~ recovery ratio ~~Recovery Effectiveness~~) – 0.5 in. wc for each airstream
…	

TABLE 6.5.3.1-2 Fan Power Limitation Pressure Drop Adjustment (SI)

Device	Adjustment
Credits	
…	
Energy recovery device, other than coil runaround loop	(550 × enthalpy ~~energy~~ recovery ratio ~~Recovery Effectiveness~~) – 125 Pa for each airstream
…	

6.5.6.1 Exhaust Air Energy Recovery. Each fan system shall have an energy recovery system when the design ~~system's~~ supply fan airflow rate exceeds the value listed in Table 6.5.6.1 based on the climate zone and percentage of outdoor air ~~flow rate~~ at design airflow conditions.

Energy recovery systems required by this section shall ~~have~~ result in an enthalpy recovery ratio of at least

50~~%~~ percent ~~energy recovery effectiveness~~. A fifty percent enthalpy recovery ratio ~~energy recovery effectiveness~~ shall mean a change in the enthalpy of the outdoor air supply equal to 50% of the difference between the outdoor air and return air enthalpies at design conditions. Provision shall be made to bypass or control the energy recovery system to permit air economizer operation as required by 6.5.1.1.

6.5.7.1.4. If a kitchen/dining facility has a total kitchen hood exhaust airflow rate greater than 5,000 cfm then it shall have one of the following:

a. At least 50% of all replacement air is transfer air that would otherwise be exhausted.
b. Demand ventilation system(s) on at least 75% of the exhaust air. Such systems shall be capable of at least 50% reduction in exhaust and replacement air system airflow rates, including controls necessary to modulate airflow in response to appliance operation and to maintain full capture and containment of smoke, effluent and combustion products during cooking and idle.
c. Listed energy recovery devices that result in a sensible energy recovery ratio ~~with a sensible heat recovery effectiveness~~ of not less than 40% on at least 50% of the total exhaust airflow. A forty percent sensible energy recovery ratio shall mean a change in the dry-bulb temperature of the outdoor air supply equal to 40% of the difference between the outdoor air and exhaust air dry-bulb temperatures at design conditions.

6.5.7.2 Laboratory Exhaust Systems. Buildings = with laboratory exhaust systems having a total exhaust rate greater than 5000 cfm shall include at least one of the following features:

a. VAV laboratory exhaust and room supply system capable of reducing exhaust and makeup airflow rates and/or incorporate a heat recovery system to precondition makeup air from laboratory exhaust that shall meet the following:

$$A + B \times (E/M) \text{ e } 50\%$$

Where

A = percentage that the exhaust and makeup airflow rates can be reduced from design conditions

B = ~~percentage~~ sensible energy recovery ratio ~~recovery effectiveness~~

E = exhaust airflow rate through the heat recovery device at design conditions

M = makeup airflow rate of the system at design conditions.

b. VAV laboratory exhaust and room supply systems that are required to have minimum circulation rates to comply with code or accreditation standards shall be capable of reducing zone exhaust and makeup airflow rates to the regulated minimum circulation values or the minimum required to maintain pressurization relationship requirements. Nonregulated zones shall be capable of reducing exhaust and makeup airflow rates to 50% of the zone design values or the minimum required to maintain pressurization relationship requirements.
c. Direct makeup (auxiliary) air supply equal to at least 75% of the exhaust airflow rate, heated no warmer than 2°F below room setpoint, cooled to no cooler than 3°F above room setpoint, no humidification added, and no simultaneous heating and cooling used for dehumidification control.

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FOREWORD

Currently the controls requirements for outdoor lighting are photocontrols or an astronomical timeclock to turn lighting off during the daytime and a scheduling control to turn lighting off or reduce lighting power after midnight or after normal business hours. This proposal would require activity sensing controls for parking lot lighting with low mounting heights (below 24 feet) and luminaire rated wattage greater than 78 Watts. These controls would reduce lighting power by at least 50% per luminaire when no activity is detected in the zone served by the lighting. The amount of lighting that can be controlled together is limited to 1,500 watts. This requirement is very similar to the parking garage lighting control requirements in Section 9.4.1.3. Note that this applies only to "parking areas" and does not apply to outdoors sales or outdoor "vehicle sales" lots. This proposal would save lighting energy in parking lots during normal business hours whenever portions of the lot are unoccupied. Cost analysis was completed and shows that it is cost effective with a scalar of 8.8.

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Addendum as to 90.1-2013

Modify the standard as follows (IP and SI Units)

9.4.1.4 Exterior Lighting Control. Lighting for exterior applications not exempted in Section 9.1 shall meet the following requirements:

a. Lighting shall be controlled by a device that automatically turns off the lighting when sufficient daylight is available.
b. All building façade and landscape lighting shall be automatically shut off between midnight or business closing, whichever is later, and 6 a.m. or business opening, whichever comes first, or between times established by the authority having jurisdiction.
c. Lighting not specified in Section 9.4.1.4(b) and lighting for signage shall be controlled by a device that automatically reduces the connected lighting power by at least ~~30~~ 50% for at least one of the following conditions:
    1. From 12 midnight or within one (1) hour of the end of business operations, whichever is later, until 6 a.m. or business opening, whichever is earlier
    2. During any period when no activity has been detected for a time of no longer than 15 minutes

d. Luminaires serving outdoor parking areas and having a rated input wattage of greater than 78 Watts and a mounting height of 24 feet (7.3 m) or less above the ground, shall be controlled to automatically reduce the power of each luminaire by a minimum of 50% when no activity has been detected in the area illuminated by the controlled luminaires for a time of no longer than 15 minutes. No more than 1,500 watts of lighting power shall be controlled together.

All time switches shall be capable of retaining programming and the time setting during loss of power for a period of at least ten hours.

EXCEPTIONS:

1. Lighting for covered vehicle entrances or exits from buildings or parking structures where required for safety, security, or eye adaptation
2. Lighting that is integral to signage and installed in the signage by the manufacturer

BSR/ASHRAE/IES Addendum at
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum at to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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

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FOREWORD

This addendum provides clarity RE the calibration of daylighting controls by highlighting that having a person in the field of view of the sensor during the calibration would adversely affect the process. Various types of calibration systems exist. Some require the operator to be physically at the sensor to perform the calibration. Others allow for the operator to be away from the sensor while the calibration is processing. This proposal clarifies that the type that requires the operator to be physically at the sensor is not allowed.

This proposal provides clarity only and does not change the stringency or costs, and therefore does not require economic analysis.

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Addendum at to 90.1-2013

Modify the standard as follows (IP and SI Units)

9.4.1.1 Interior Lighting Controls.

……..

e. *Automatic daylight responsive controls for sidelighting*: In any space where the combined input power of all general lighting completely or partially within the primary sidelighted areas is 150 W or greater, the general lighting in the primary sidelighted areas shall be controlled by photocontrols.

In any space where the combined input power of all general lighting completely or partially within the primary and secondary sidelighted areas is 300 W or greater, the general lighting in the primary sidelighted areas and secondary sidelighted areas shall be controlled by photocontrols. General lighting in the secondary sidelighted area shall be controlled independently of the general lighting in the primary sidelighted area.

…….

The control system shall have the following characteristics:

~~1. The calibration adjustments shall be readily accessible.~~
~~2. At minimum, general lighting in the secondary sidelighted area shall be controlled independently of the general lighting in the primary sidelighted area.~~
1~~3~~. The photocontrol shall reduce electric lighting in response to available daylight using continuous dimming or with at least one control point between 50% and 70% of design lighting power, a second control point between 20% and 40% of design lighting power or the lowest dimming level the technology allows, and a third control point that turns off all the controlled lighting.
2. The calibration shall not require the physical presence of a person at the sensor while the calibration is processing.

…..…no changes to the exceptions to e

f. *Automatic daylight responsive controls for toplighting*: In any space where the combined input power for all general lighting completely or partially within daylight areas under skylights and daylight areas under roof monitors is 150 W or greater, general lighting in the daylight area shall be controlled by photocontrols. General lighting in overlapping toplighted and sidelighted daylight areas shall be controlled together with general lighting in the daylight area under skylights or daylight areas under roof monitors.

The control system shall have the following characteristics:
~~having the following characteristics:~~

~~1. The calibration adjustments shall be readily accessible.~~
1~~2~~. The photocontrol shall reduce electric lighting in response to available daylight using continuous dimming or with at least one control point that is between 50% and 70% of design lighting power, a second control point between 20% and 40% of design lighting power or the lowest dimming level the technology allows, and a third control point that turns off all the controlled lighting.
2. The calibration shall not require the physical presence of a person at the sensor while the calibration is processing.
3. General lighting in overlapping toplighted and sidelighted daylight areas shall be controlled together with general lighting in the daylight area under skylights or daylight areas under roof monitors.

……*no changes to the exceptions to f*

BSR/ASHRAE/IES Addendum au
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FOREWORD

This addendum provides more detail for the baseline model with regard to hot water pumps and chilled water pumps. The addendum uses previous approved 90.1-2013 Addendum ak with regard to a 25% minimum flow for the hot water pump, secondary chilled water pump and purchased energy pumps. The addendum also provides guidance on pump power efficiency limits for these systems.

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Addendum au to 90.1-2013

Modify the standard as follows (IP and SI Units)

G3.1.3.5 Hot-Water Pumps. The baseline building design hot-water pump power shall be 19 W/gpm. The pumping system shall be modeled as primary-only with continuous variable flow and a minimum of 25% of the design flow rate. Hot-water systems serving 120,000 ft^2 or more shall be modeled with variable-speed drives, and systems serving less than 120,000 ft^2 shall be modeled as riding the pump curve.
Exception: The pump power for systems using purchased heat shall be 14 W/gpm.

G3.1.3.10 Chilled-Water Pumps ~~(Systems 7, 8, and 11).~~ ~~The baseline building design pump power shall be 22 W/gpm.~~ Chilled-water systems ~~with a cooling capacity of 300 tons or more~~ shall be modeled as primary/secondary systems with constant flow primary loop and variable flow secondary loop. For systems with a cooling capacity of 300 tons (1055 kW) or more, the secondary pump shall be modeled with variable-speed drive~~s on the secondary pumping loop~~ and a minimum flow of 25% of the design flow rate. ~~Chilled-water pumps in~~ For systems ~~serving~~ with less than 300 tons (1055 kW)cooling capacity ~~shall be modeled as a primary/secondary systems with~~ the secondary pump shall be modeled as riding the pump curve. The baseline building constant volume primary pump power shall be modeled as 9 W/gpm and the variable flow secondary pump power shall be modeled as 13 W/gpm (206 kW/1000 L/s) at design conditions. For computer room systems using System 11 with an integrated water-side economizer, the baseline building design primary chilled-water pump power shall be increased by ~~5~~3 W/gpm (48 kW/1000 L/s) for flow associated with the water-side economizer.
Exception: ~~The pump power for~~ For systems using purchased chilled water, the building distribution pump shall be modeled with variable-speed drive, a minimum flow of 25% of the design flow rate, and a pump power of ~~shall be~~ 16 W/gpm.

G3.1.3.11 Heat Rejection (Systems 7, 8, 11, and 12).

…

The tower shall be controlled to maintain a 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. For computer room systems using System 11 with an integrated water-side economizer, the baseline building design condenser water-pump power shall be increased ~~5~~3 W/gpm (48 kW/1000 L/s) 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 av
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

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FOREWORD

This addendum generally adds the phrase "configured to" where "capable of" is used related to control requirements. The word "capable" alone is not the best mandatory language for controls, as control equipment can be provided that could be said to be capable of achieving the desired result even though the setpoint is not correct or the programming is not even complete. Using "configured" indicates that all programming is complete and setpoints are correct at the time of occupancy, yet focuses on the present state at time of inspection rather than future operation.

This addendum looks at cases where "capable of" could be misinterpreted and adds terms like "configured to" to provide more assurance that requirements will actually be met. Note that there are some instances where "capable of" alone is the appropriate word choice, and changes are only suggested where there are specific setpoints or functions that are required. For instance, in this definition, "capable of" is the right choice:

> ***service agency:*** *an agency* ***capable of*** *providing calibration, testing, or manufacture of equipment, instrumentation, metering, or control apparatus, such as a contractor, laboratory, or manufacturer.*

*However in the following requirement, "***capable of***" does not leave you sure that the requirement will be fulfilled:*

> ***6.4.3.4.4 Ventilation Fan Controls****. Fans with motors greater than 0.75 hp shall have automatic controls complying with Section 6.4.3.3.1 that are* ***capable of*** *shutting off fans when not required.*

Unfortunately, I could have a control system that is **capable of** *accomplishing the requirement, but is not programmed and configured to fulfill its mission. So, stating that the control system shall be* **configured to** *meet the requirement makes it much more likely that the requirement will be fulfilled:*

> ***6.4.3.4.4 Ventilation Fan Controls.*** *Fans with motors greater than 0.75 hp shall have automatic controls complying with Section 6.4.3.3.1 that are* ***capable of and configured to*** *shut off fans when not required.*

Cost effectiveness: This represents a clarification rather than a new requirement, so there is no anticipated cost increase and cost effectiveness analysis is not required.

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Addendum av to 90.1-2013

Modify the standard as follows (IP and SI Units)

Modify Section 3 as follows:
readily accessible: ~~capable of being~~ installed in a manner and location that allows it to be reached quickly for operation, renewal, or inspection without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders, chairs, etc. In public facilities, accessibility may be limited to certified personnel through locking covers or by placing equipment in locked rooms.

Modify Section 6.3.2 (Simplified Approach Option for HVAC Systems, Criteria) as follows:

j. Systems serving spaces other than hotel/motel guest rooms, and other than those requiring continuous operation, which have both a cooling or heating capacity greater than 15,000 Btu/h and a supply fan motor power greater than 0.75 hp, shall be provided with a time clock that (1) can start and stop the system under different schedules for seven different day types per week, (2) is capable of retaining programming and time setting during a loss of power for a period of at least ten hours, (3) includes an accessible manual override that allows temporary operation of the system for up to two hours, (4) is capable of and configured with temperature setback down to 55°F during off hours, and (5) is capable of and configured with temperature setup to 90°F during off hours.

Modify Section 6.4.3 as follows:

6.4.3.1.2 Dead Band. Where used to control both heating and cooling, zone thermostatic controls shall be capable of and configured to provide~~ing~~ a temperature range or dead band of at least 5°F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum.

. . .

6.4.3.3.2 Setback Controls. Heating systems shall be equipped with controls capable of and configured to automatically restart and temporarily operate the system as required to maintain zone temperatures above an adjustable heating setpoint at least 10°F below the occupied heating setpoint. Cooling systems shall be equipped with controls capable of and configured to automatically restart and temporarily operate the mechanical cooling system as required to maintain zone temperatures below an adjustable cooling setpoint at least 5°F above the occupied cooling setpoint or to prevent high space humidity levels.

Exception: Radiant heating systems capable of and configured with a setback heating setpoint at least 4°F below the occupied heating setpoint

. . .

6.4.3.3.4 Zone Isolation. HVAC systems serving zones that are intended to operate or be occupied non-simultaneously shall be divided into isolation areas. Zones may be grouped into a single isolation area provided it does not exceed 25,000 ft2 of conditioned floor area nor include more than one floor. Each isolation area shall be equipped with isolation devices capable of and configured to automatically shut~~ting~~ off the supply of conditioned air and outdoor air to and exhaust air from the area. Each isolation area shall be controlled independently by a device meeting the requirements of Section 6.4.3.3.1. For central systems and plants, controls and devices shall be provided to allow stable system and equipment operation for any length of time while serving only the smallest isolation area served by the system or plant.

Note: Section 6.4.3.3.5 is as added by addendum d to 90.1-2013

6.4.3.3.5 Automatic Control of HVAC in Hotel/Motel Guest Rooms. ~~In h~~Hotels and motels with greater than 50 guest rooms shall be provided with~~,~~ *automatic* controls for the HVAC equipment serving each guest room ~~shall be~~ capable of and configured according to the following requirements:

. . .

6.4.3.4.1 Stair and Shaft Vents. Stair and elevator shaft vents shall be equipped with motorized dampers that are capable of ~~being~~ and configured to automatically close~~d~~ during normal building operation and are interlocked to open as required by fire and smoke detection systems.

6.4.3.4.2 Shutoff Damper Controls. All outdoor air intake and exhaust systems shall be equipped with motorized dampers that will automatically shut when the systems or spaces served are not in use. Ventilation outdoor air and exhaust/relief dampers shall be capable of and configured to automatically shut~~ting~~ off during preoccupancy building warm-up, cooldown, and setback, except when ventilation reduces energy costs or when ventilation must be supplied to meet code requirements.

. . .

6.4.3.4.4 Ventilation Fan Controls. Fans with motors greater than 0.75 hp shall have automatic controls complying with Section 6.4.3.3.1 that are capable of and configured to shut~~ting~~ off fans when not required.

. . .

6.4.3.6 Humidification and Dehumidification. Humidity control shall prevent the use of fossil fuel or electricity to produce RH above 30% in the warmest zone served by the humidification system and to reduce RH below 60% in the coldest zone served by the dehumidification system. Where a zone is served by a system or systems with both humidification and dehumidification capability, means (such as limit switches, mechanical stops, or, for DDC systems, software programming) shall be provided capable of and configured to prevent~~ing~~ simultaneous operation of humidification and dehumidification equipment.

Exceptions:

1. Zones served by desiccant systems, used with direct evaporative cooling in series
2. Systems serving zones where specific humidity levels are required, such as museums and hospitals, and approved by the authority having jurisdiction or required by accreditation standards and humidity controls are capable of and configured to maintain a deadband of at least 10% RH where no active humidification or dehumidification takes place
3. Systems serving zones where humidity levels are required to be maintained with precision of not more than ±5% RH to comply with applicable codes or accreditation standards or as approved by the authority having jurisdiction

. . .

6.4.3.7 Freeze Protection and Snow/Ice Melting Systems.

Freeze protection systems, such as heat tracing of outdoor piping and heat exchangers, including self-regulating heat tracing, shall include automatic controls capable of and configured to shut~~ting~~ off the systems when outdoor air temperatures are above 40°F or when the conditions of the protected fluid will prevent freezing. Snow- and ice-melting systems shall include automatic controls capable of and configured to shut~~ting~~ off the systems when the pavement temperature is above 50°F and no precipitation is falling, and an automatic or manual control that will allow shutoff when the outdoor temperature is above 40°F so that the potential for snow or ice accumulation is negligible.

. . .

*Note: Section 6.4.3.9 is as modified by addendum **ag** to 90.1-2013.*

6.4.3.9 Heated or Cooled Vestibules. Heating for vestibules and for air curtains with integral heating shall include automatic controls capable and configured to shut off the heating system when outdoor air temperatures are above 45°F (7°C). Vestibule heating and cooling systems shall be controlled by a thermostat in the vestibule ~~that~~ capable and configured to limit~~s~~ heating to a maximum of 60°F (16°C) and cooling to a minimum of 85°F (29°C).

Exception: Heating or cooling provided by site-recovered energy or by transfer air that would otherwise be exhausted.

. . .

6.4.3.10.2 DDC Controls. Where DDC is required by Section 6.4.3.10.1, the DDC system shall be capable of and configured with all of the following, as required, to provide the control logic required in Section 6.5:

a. Monitoring zone and system demand for fan pressure, pump pressure, heating, and cooling

b. Transferring zone and system demand information from zones to air distribution system controllers and from air distribution systems to heating and cooling plant controllers

c. Automatically detecting those zones and systems that may be excessively driving the reset logic and generate an alarm or other indication to the system operator

d. Readily allowing operator removal of zone(s) from the reset algorithm

. . .

6.5.1.1 Air Economizers

6.5.1.1.1 Design Capacity. Air economizer systems shall be capable of and configured to modulate~~ing~~ outdoor air and return air dampers to provide up to 100% of the design supply air quantity as outdoor air for cooling.

6.5.1.1.2 Control Signal. Economizer controls ~~dampers~~ shall be capable of and configured to ~~being~~ sequence~~d~~ the dampers with the mechanical cooling equipment and shall not be controlled by only mixed-air temperature.

. . .

6.5.1.1.3 High-Limit Shutoff. All air economizers shall be capable of and configured to automatically reduce~~ing~~ outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will no longer reduce cooling energy usage. High-limit shutoff control types and associated setpoints for specific climate zones shall be chosen from Table 6.5.1.1.3.

. . .

6.5.1.3 Integrated Economizer Control. Economizer systems shall be integrated with the mechanical cooling system and be capable of and configured to provide~~ing~~ partial cooling even when additional mechanical cooling is required to meet the remainder of the cooling load. Controls shall not false load the mechanical cooling systems by limiting or disabling the economizer or by any other means, such as hot gas bypass, except at the lowest stage of mechanical cooling.

. . .

*In section **6.5.2.2.3 (Hydronic (Water Loop) Heat Pump Systems):***

a. Controls that are capable of and configured to provide~~ing~~ a heat-pump water supply temperature dead band of at least 20°F between initiation of heat rejection and heat addition by the central devices (e.g., tower and boiler).

. . .

*In section **6.5.2.3 (dehumidification, Exceptions):***

1. The system is capable of and configured to reduce supply air volume to 50% or less of the design airflow rate or the minimum outdoor air ventilation rate specified in ASHRAE Standard 62.1 or other applicable federal, state, or local code or recognized standard, whichever is larger, before simultaneous heating and cooling takes place.
2. The individual fan cooling unit has a design cooling capacity of 65,000 Btu/h or less and is capable of and configured to unload~~ing~~ to 50% capacity before simultaneous heating and cooling takes place.

. . .

6.5.4.2 Hydronic Variable Flow Systems. HVAC pumping systems having a total pump system power exceeding 10 hp that include control valves designed to modulate or step open and close as a function of load shall be designed for variable fluid flow and shall be capable of and configured to reduce~~ing~~ pump flow rates to

50% or less of the design flow rate. Individual chilled-water pumps serving variable-flow systems having motors exceeding 5 hp shall have controls and/or devices (such as variable-speed control) that will result in pump motor demand of no more than 30% of design wattage at 50% of design water flow. The controls or devices shall be controlled as a function of desired flow or to maintain a minimum required differential pressure. Differential pressure shall be measured at or near the most remote heat exchanger or the heat exchanger requiring the greatest differential pressure. The differential pressure setpoint shall be no more than 110% of that required to achieve design flow through the heat exchanger. Where differential pressure control is used to comply with this section and DDC systems are used, the setpoint shall be reset downward based on valve positions until one valve is nearly wide open.

. . .

6.5.7.1.4 If a kitchen/dining facility has a total kitchen hood exhaust airflow rate greater than 5000 cfm then it shall have one of the following:

a. At least 50% of all replacement air is transfer air that would otherwise be exhausted.
b. Demand ventilation system(s) on at least 75% of the exhaust air. Such systems shall be capable of and configured to provide at least 50% reduction in exhaust and replacement air system airflow rates, including controls necessary to modulate airflow in response to appliance operation and to maintain full capture and containment of smoke, effluent, and combustion products during cooking and idle.
c. Listed energy recovery devices with a sensible heat recovery effectiveness of not less than 40% on at least 50% of the total exhaust airflow.

. . .

6.5.7.2 Laboratory Exhaust Systems. Buildings with laboratory exhaust systems having a total exhaust rate greater than 5000 cfm shall include at least one of the following features:

a. VAV laboratory exhaust and room supply system capable of and configured to reduce~~ing~~ exhaust and makeup airflow rates and/or incorporate a heat recovery system to precondition makeup air from laboratory exhaust that shall meet the following: $A + B \times (E/M)$ e 50%
b. VAV laboratory exhaust and room supply systems that are required to have minimum circulation rates to comply with code or accreditation standards shall be capable of and configured to reduce~~ing~~ zone exhaust and makeup airflow rates to the regulated minimum circulation values or the minimum required to maintain pressurization relationship requirements. Systems serving ~~N~~nonregulated zones shall be capable of and configured to reduce~~ing~~ exhaust and makeup airflow rates to 50% of the zone design values or the minimum required to maintain pressurization relationship requirements

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FOREWORD

This addendum updates the Exhaust Air Energy Recovery Exceptions.

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Addendum aw to 90.1-2013

Modify the standard as follows (IP and SI Units)

6.5.6 Energy Recovery

6.5.6.1 Exhaust Air Energy Recovery. Each fan system shall have an energy recovery system when the system's supply airflow rate exceeds the value listed in Tables 6.5.6.1-1 and 6.5.6.1-2, based on the climate zone and percentage of outdoor airflow rate at design conditions. Table 6.5.6.1-1 shall be used for all ventilation systems that operate less than 8000 hours per year, and Table 6.5.6.1-2 shall be used for all ventilation systems that operate 8000 or more hours per year...

. . .

Exceptions:

1. Laboratory systems meeting Section 6.5.7.2
2. Systems serving spaces that are not cooled and that are heated to less than 60°F
3. ~~Systems exhausting toxic, flammable, paint, or corrosive fumes or dust~~
~~4. Commercial kitchen hoods used for collecting and removing grease vapors and smoke~~
~~5.~~ Where more than 60% of the outdoor air heating energy is provided from site-recovered or site solar energy
~~6~~4. Heating energy recovery in Climate Zones 1 and 2~~.~~
~~7~~5. Cooling energy recovery in Climate Zones 3c, 4c, 5b, 5c, 6b, 7, and 8
~~8~~6. Where the sum of the airflow rates exhausted and relieved within 20 ft (6 m) of each other ~~the largest source of air exhausted at a single location at the building exterior~~ is less than 75% of the design outdoor airflow rate, excluding exhaust air:
    a. used for another energy recovery system,
    b. not allowed by ASHRAE Standard 170 for use in energy recovery systems with leakage potential, and
    c. of class 4 as defined in ASHRAE Standard 62.1
~~9~~7. Systems requiring dehumidification that employ energy recovery in series with the cooling coil
~~10~~8. Systems expected to operate less than 20 hours per week at the outdoor air percentage covered by Table 6.5.6.1-1.

Add the following reference to Section 12

Reference	**Title**
ASHRAE	
1791 Tullie Circle, NE, Atlanta, GA 30329	
ANSI/ASHRAE/ASHE Standard 170-2013	Ventilation of Health Care Facilities

BSR/ASHRAE/IES Addendum l
to ANSI/ASHRAE/IES Standard 90.1-2013

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Second Public Review (March 2015)
(Draft shows Proposed Changes to Current Standard)

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

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FOREWORD

For this 2nd Public Review of addendum l, changes to the first public review in response to public comments are underlined and struck through. Changes address the following:

1. Changed inspection and Non-conforming Work requirements in Section 4.2.

2. Moved the whole building air leakage testing into existing Air Leakage section and adds clearer guidance on testing representative portions of very large buildings and adds a new exception for buildings unable to comply with the required air leakage rate

3. Modified the verification section to reference the relocated whole building air leakage testing now located in the existing Air Leakage Section of the Standard.

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Addendum l to 90.1-2013

Modify the standard as follows (IP and SI Units)

Modify Section 4.2.4 as follows:

4.2.4 Inspections. All building construction, additions, or alterations~~s~~ work subject to the provisions of this standard shall remain accessible and exposed for inspection purposes until approved in accordance with the procedures specified by the building official. ~~Items for inspection include, but are not limited to: insulation, fenestration, mechanical systems, water heating systems, and lighting systems.~~

4.2.5 Verification and commissioning reporting. Where reporting is required, the building official or other approved agencies shall report to the contractor their findings of conformance and non-conformance for correction.

4.2.5.1 Non-conformance. If the non-conforming work is found not to be corrected within a pre-determined time agreed upon with the contractor, the non-conforming work shall be ~~brought to the attention of~~ reported in writing to the building official and design professional ~~prior to the completion of the project~~. At a time agreed upon by the building official or other approved agencies, a final report shall be submitted to the building official and the contractor that outlines the inspection findings, and documents the correction of non-conforming work.

Modify Section 5.4.3.1.3 as follows:

5.4.3.1.3 Testing, Acceptable Materials and Assemblies. The building shall comply with whole building pressurization testing in accordance with 5.4.3.1.3(a); or with the ~~C~~*continuous air barrier* requirements in ~~materials and assemblies for the *opaque building envelope* shall comply with one of the following requirements:~~ 5.4.3.1.3(b) or 5.4.3.1.3(c).

a. Whole building pressurization testing shall be conducted in accordance with ASTM E779 or ASTM E1827 by an independent third party. The measured air leakage rate of the *building envelope* shall not exceed 0.40 cfm/ft^2 (2.0 L/s•m^2) under a pressure differential of 0.3 in. water (75 Pa), with this air leakage rate normalized by the sum of the above and below grade *building envelope* areas of the *conditioned* and *semiheated space.*

Exceptions:

1. For buildings having over 50,000 ft^2 (5,000 m^2) of gross conditioned floor area, air leakage testing shall be permitted to be conducted on less than the whole building provided the following portions of the building are tested:

   a. The entire floor area of all stories that have any spaces directly under a roof,

   b. The entire floor area of all stories that have a building entrance or loading dock, and

   c. Representative above-grade sections of the building totaling at least 25% of the wall area enclosing the remaining conditioned space.

   The measured air leakages shall then be area-weighted by the surface areas of the building envelope in a, b, and c above to determine a whole building value. The test(s) of the areas in c shall be applied to the remainder of the building envelope surface area not included in a and b.

2. Where the measured air leakage rate exceeds 0.40 cfm/ft^2 (2.0 L/s•m^2) but does not exceed 0.60 cfm/ft^2 (3.0 L/s•m^2), a diagnostic evaluation, such as a smoke tracer or infra-red imaging shall be conducted while the building is pressurized and any leaks noted shall be sealed if such sealing can be made without destruction of existing building components. In addition, a visual inspection of the air barrier shall be conducted and any leaks noted shall be sealed if such sealing can be made without destruction of existing building components. An additional report identifying the corrective actions taken to seal leaks shall be submitted to the code official and the building owner, and shall be deemed to satisfy the requirements of this section.

~~a~~b. Materials that have an air permeance not exceeding…

~~b~~c. Assemblies of materials and components…

Modify Section 5.9.2 as follows:

5.9.2 Verification.

5.9.2.1 Building envelope performance verification. The performance of the building envelope shall be verified in accordance with this section, and Section 4.2.5.

5.9.2.2 ~~Whole building~~ Air leakage verification. Air leakage verification shall be determined in accordance with one of the following methods:

~~a. Whole building pressurization testing shall be conducted in accordance with ASTM E779 or ASTM E1827 by an independent third party. The measured air leakage rate of the *building envelope* shall not exceed 0.40 cfm/ft2 (2.0 L/s•m2) under a pressure differential of 0.3 in. water (75 Pa), with this air leakage rate normalized by the sum of the above and below grade *building envelope* areas of the *conditioned* and *semiheated space*.~~

~~**Exception.** Buildings having over 250,000 ft2 (25,000 m2) of *gross conditioned floor area*, air leakage testing shall be permitted to conduct testing on representative above grade sections of the building. Tested areas shall total at least 25% of the conditioned floor area. All tested areas shall comply with the performance requirement in 5.9.2.2 (a).~~

~~b~~ a. ~~Air barrier performance verification.~~ An air barrier design and installation ~~performance~~ verification program shall be implemented and shall include the following elements:

1. A design review shall be conducted to assess compliance with the requirements in Sections 5.4.3.1.1, 5.4.3.1.2, and the applicable portions of 5.4.3.1.3;

2. Periodic field inspection of *continuous air barrier* components and assemblies shall be conducted during construction while the air barrier is still accessible for inspection and repair to verify compliance with the requirements of Sections 5.4.3.1.1, 5.4.3.1.2, and the applicable portions of 5.4.3.1.3; and,

3. Reporting shall be in compliance with Section 4.2.5.

b. A whole building air leakage verification program shall be implemented and shall include the following elements:

1. Whole building pressurization testing shall be done in accordance with Section 5.4.3.1.3(a) and the use of any exceptions shall be documented; and,
2. Reporting shall be in compliance with Section 4.2.5.

~~b~~ c. Air barrier performance verification. An air barrier performance verification program shall be implemented and shall include the following elements:

1. A design review shall be conducted to assess compliance with the requirements in section 5.4.3.1;
2. Periodic field inspection of *continuous air barrier* components and assemblies shall be conducted during construction while the air barrier is still accessible for inspection and repair to verify compliance with the requirements of Section 5.4.3.1; and,
3. Reporting in compliance with 4.2.5.

BSR/ASHRAE/IES Addendum u
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum u to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

Second Public Review Independent Substantive Change (March 2015)
(Draft shows Proposed Changes to Previous Public Review Draft)

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FOREWORD

This proposal is in response to comments from the first public review which result in additional exceptions to be added in for the transfer air requirements in order to prevent mixing of air between spaces.

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Addendum u to 90.1-2013

Modify the standard as follows (IP and SI Units)

6.5.7 Exhaust Systems

6.5.7.1 Transfer Air. Conditioned supply air delivered to any space with mechanical exhaust shall not exceed the greater of:

a. the supply flow required to meet the space heating or cooling load, or
b. the ventilation rate required by the Authority Having Jurisdiction, the facility Environmental Health & Safety department, or ASHRAE Standard 62.1, or
c. the mechanical exhaust flow minus the available transfer air from conditioned spaces or return air plenums on the same floor, not in different smoke or fire compartments and that at their closest point are within 15 feet of each other. ~~conditioned spaces or adjacent return air plenums common to other conditioned spaces.~~ Available transfer air is that portion of outdoor ventilation air that:
   1. is not required to satisfy other exhaust needs, and
   2. is not required to maintain pressurization of other spaces, and
   3. is transferrable according to applicable codes and standards and to the Class of Air Recirculation Limitations in ASHRAE Standard 62.1.

      Exceptions:
      1. Biosafety Level classified laboratories 3 or higher
      2. Vivarium spaces
      3. Spaces that are required by applicable codes and standards to be maintained at positive pressure relative to adjacent space(s). For spaces taking this exception, any transferrable air that is not directly transferred shall be made available to the associated air handling unit, and shall be used whenever economizer or other options do not save more energy.

Spaces where the demand for transfer air may exceed the available transfer air flow rate and the spaces have a required negative pressure relationship. For spaces taking this exception, any transferrable air that is not directly transferred shall be made available to the associated air handling unit, and shall be used whenever economizer or other options do not save more energy

BSR/ASHRAE/IES Addendum w
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum w to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

Second Public Review Independent Substantive Change (March 2015)
(Draft shows Proposed Changes to Previous Public Review Draft)

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FOREWORD

This Independent Substantive Change (ISC) is a modification to proposed addendum w. This ISC adds a methodology for rating solar reflectance for the portion of the opaque wall that is glass spandrel and adjusts the minimum skylight criteria for Climate Zone 0 in response to comments received.

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 w to 90.1-2013

Modify the standard as follows (IP and SI Units)
Revise 5.5.3 as follows:

5.5.3 Opaque Areas.

5.5.3.1 Roof Insulation. …

5.5.3.2 Above-Grade Wall Insulation. All above-grade walls shall comply with the insulation values specified in Tables 5.5-0 through 5.5-8.

Exception: Alternatively, for mass walls, where the requirement in Tables 5.5-0 through 5.5-8 is for…

In addition, for Climate Zone 0, above-grade walls shall comply with one of the following:

1. For east and west walls, a minimum of 75% of the opaque wall area shall have a minimum SRI of 29. <u>For the portion of the opaque wall that is glass spandrel area, a minimum solar reflectance of 29% determined in accordance with NFRC 300 or ISO 9050 shall be permitted.</u> Each wall is allowed to be considered separately.
2. For east and west walls, a minimum of 30% of the above grade wall area shall be shaded through the use of shade-providing plants, manmade structures, existing buildings, hillsides, permanent building projections, on-site renewable energy systems or a combination of these. Shade coverage shall be calculated at 10 a.m. for the east walls and 3 p.m. for the west walls on the summer solstice.

The building is allowed to be rotated up to 45 degrees to the nearest cardinal orientation for purposes of calculations and showing compliance.

(no changes to the remainder of the text in 5.5.3)

Revise 5.5.4 as follows:

5.5.4 Fenestration.

5.5.4.1 General. …

5.5.4.2 Fenestration Area.

5.5.4.2.1 Vertical Fenestration Area. …

5.5.4.2.2 Maximum Skylight Fenestration Area. …

5.5.4.2.3 Minimum Skylight Fenestration Area. …

Exceptions:

1. Enclosed spaces in Climate Zones ~~0 and~~ 6 through 8

(no changes to the remainder of the text in 5.5.4)

Revise 12 as follows:

International Organization for Standardization (ISO)
1, rue de Varembe, Case postale 56, CH-1211 Geneve 20, Switzerland

ISO 9050 (2003)	Glass in building — Determination of light transmittance, solar direct transmittance, total solar energy transmittance, ultraviolet transmittance and related glazing factors

…

BSR/ASHRAE/IES Addendum y
to ANSI/ASHRAE/IES Standard 90.1-2013

Public Review Draft

Proposed Addendum y to Standard 90.1-2013, Energy Standard for Buildings Except Low-Rise Residential Buildings

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FOREWORD

This proposal adds a new approach to Simplified Building Lighting. This method will provide a simplified method of compliance while saving energy through reduced LPDs and additional controls. The LPDs were derived from the Advanced Energy Design Guide series jointly developed by ASHRAE/AIA/IES/USGBC/DOE and from the Technical Support Documents for this series. The control percentages were derived from the control percentages required in 90.1-2013 and the potential building area that can be controlled.

For this ISC the control language in the interior table 9.3.1.1-1 for Parking Garage was re-ordered without any language change. In the exterior table 9.3.1.1-2 "Stairs and Ramps" was moved to its own row in the table for clarity without any change in the language, and "All other areas not listed" was also moved, without any language change, to its own row at the end of the table for clarity.

The exception for lights operating at all times was determined by multiplying the percentage of floor area expected to have egress lighting (based on the building area dataset used in the calculation of the building area LPDs) by 0.1 W/ft2 which is the value found in the Standard 189.1 to be used only for security and egress areas. This exception is included to ensure that all lighting including night lights shall be turned off when the spaces is unoccupied with an allowance for security and safety reasons.

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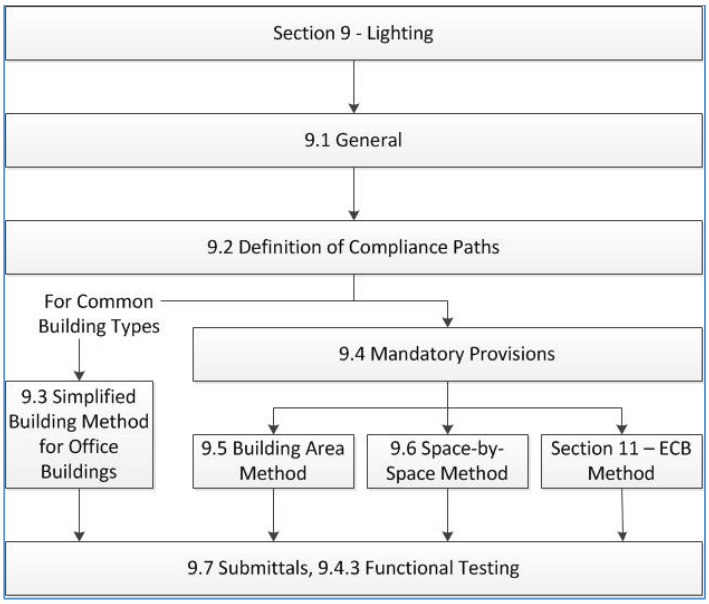
Addendum y to 90.1-2013

Modify the standard as follows (IP and SI Units)

The following flowchart will be added to Section 9



9.2 Compliance Path(s)

9.2.1 Compliance with Section 9 shall be achieved by meeting all of the requirements of Section 9.1 (General), 9.4.3 (Functional Testing), Section 9.7 (Submittals) and either:

a. Section 9.3 (Simplified Building Method for Office Buildings). This method shall be permitted only for buildings where at least 80% of the floor area supports office functions; or

b. Section 9.4 (Mandatory Provisions) and the prescriptive requirements of either Section 9.5 (Building area Method) or 9.6 (Space-by-Space Method)

9.2.2 Prescriptive Requirements

9.2.2.1 Interior Lighting Power.

The *interior lighting power allowance* for a *building* or a separately metered or permitted portion of a *building* shall be determined by either the Simplified Building Method for Office Buildings described in Section 9.3, the Building Area Method described in Section 9.5 or the Space-by-Space Method described in Section 9.6. Trade-offs of interior lighting power allowance among portions of the building for which a different method of calculation has been used are not permitted. The installed interior lighting power identified in accordance with Section 9.1.3 shall not exceed the interior lighting power allowance developed in accordance with Section 9.3, 9.5 or 9.6.

The remainder of 9.2.2.1 remains unchanged

9.3 Simplified Building Method for Office Buildings. Office buildings (new and alterations) shall comply with the lighting power densities and control requirements of Tables 9.3.1.1-1 (interior spaces) and 9.3.1.1-2 (exterior spaces) when the Simplified Building Method for Office Buildings has been selected.

Exception: Alterations involving only luminaire and lamp/ballast replacements shall be permitted to comply by reducing the installed power by a minimum of 35% for existing T12 systems, 20% for existing T8 or T5 systems, 45% for existing HID systems and 75% for existing incandescent systems.

9.3.1 Trade-offs. Trade-offs are not allowed between interior and exterior wattage allowances.

Table 9.3.1.1-1 Interior Space Type	**Maximum Allowance**	**Controls (All lights in the space shall be controlled)**
All ~~interior~~ spaces in office buildings other than parking garages.	0.75 W/ft^2	All lighting ~~including egress lighting~~ shall be automatically controlled to turn off ~~during non-operating hours~~ when the building is not occupied. Exception: Lighting load not exceeding 0.02 W/ft^2 multiplied by the gross lighted area of the building shall be permitted to operate at all times. Each space shall have a manual control device that allows the occupant to reduce lighting power by a minimum of 50% and to turn the lighting off.
Office spaces less than or equal to 250ft^2, classrooms, conference rooms, meeting rooms, training rooms, storage rooms, and break rooms		These spaces shall also be controlled by manual-on occupant sensors. These spaces shall also be controlled by automatic continuous daylight dimming controls[1].
Offices greater than 250 ft^2 and restrooms		These spaces shall also be controlled by occupant sensors. These spaces shall also be controlled by automatic continuous daylight dimming controls[1].
Stairwells and corridors		These spaces shall also be controlled by occupant sensors that reduce the lighting power by a minimum of 50% when no activity is detected for not longer than 20 minutes.
Parking Garages	0.20 W/ft^2	All lighting shall be automatically controlled to turn off during non-operating hours. Lighting shall also be controlled by occupant sensors. Control shall reduce the power by a minimum of 50% when no activity is detected for not longer than 20 minutes. No device shall control more than 3600 ft^2.

[1] When the input power of the general lights completely or partially within the primary daylight area ~~(one window head height)~~ is 150 watts or greater.

Table 9.3.1.1-2 Exterior Area Type	**Maximum Allowance[3, 4]**	**Controls (**All exterior lighting shall be automatically shut-off when sufficient daylight is available**)**
Base allowance	600 watts	Luminaires~~, except for stairs and ramps,~~ shall be turned off or the power reduced by a minimum of 75% during non-operating hours.
Façade Lighting and Special Feature Areas, Walkways, Plazas	0.15 W/ft^2	
Landscape	0.05 W/ft^2	
Entry Doors	20 W/linear foot	
Stairs and ramps	1.00 W/ft^2	No additional controls required
Parking Lots and Drives	0.08 W/ft^2	Luminaires mounted 25 feet or less above grade shall be controlled to reduce the power by at least 50% when no activity is detected for not longer than 20 minutes.
All other areas not listed	0.20 W/ft^2	Luminaires shall be turned off or the power reduced by a minimum of 75% during non-operating hours.

[3] To calculate the Exterior allowance multiply the space or area square footage by the allowed W/ft^2 and sum the exterior allowances and the base allowance. Façade lighting shall be calculated separately by multiplying the façade area ~~(area that is intended to be lighted)~~ by the allowed W/ft^2. Façade allowance shall not be traded with other exterior areas or between separate facade areas.

[4] For office buildings in Lighting Zone 4, as defined in Table 9.4.2-1, increase exterior allowances by 25%.

BSR/ASHRAE Standard 188P

Fifth ISC Publication Public Review Draft

Legionellosis: Risk Management for Building Water Systems

Fifth Public Review (Independent Substantive Change PR)

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

The purpose of this document is to establish minimum legionellosis risk management requirements for building water systems. The standard is intended for use by owners and managers of human-occupied buildings, and those involved in the design, construction, installation, commissioning, operation, maintenance and service of centralized building water systems and components.

This is the 5th ISC public review of Standard 188. The project committee received 168 comments (supportive and substantive) during the fourth full public review of the standard. In response to the comments the project committee made substantive changes to the following sections:

1. *Added definitions for AHJ and beneficial occupancy, deleted the definition for building survey, and revised the definitions for disinfectant, non-potable, and water service disruption.*
2. *Modified Sections 4.1.1, 4.2.1, 6.2, 6.2.4 and 6.2.9 to remove "devices" and instead reference "building water systems", to avoid confusion.*
3. *Modified Sections 4.2.1, 4.2.2 and 4.2.3 to clarify concerns regarding the building owner's inability to assign legal responsibility to a designee.*
4. *Modified Section 5.1c to make it clear that it applies also to non-potable water systems.*
5. *Modified Section 6.2 to clarify the actions Program required following the building survey.*
6. *Modified Section 6.2.1 to clarify the knowledge required by the Program Team.*
7. *Modified Section 6.2.2 to replace "devices" with "components".*
8. *Modified Section 7.2.1.b. to clarify the equipment siting issues to be identified and addressed.*
9. *Modified Section 7.4 to clarify the type of other water features requiring preventative measures.*
10. *Modified Section 7.4.1.c. to clarify the type of inadequate air flow.*
11. *Modified Section 7.4.4 to add a new item "c." to add program documents for "maintaining water temperature within the control limits in the Plan."*
12. *Modified Section 8.1.x. to replace the term "dead legs", with the generic term "no flow".*
13. *Modified Section 8.2.1 to add "treatment points" and "equipment and components" to the required drawings and documents.*
14. *Modified Section 8.4 to clarify what is required in the commissioning documents for the flushing and disinfection of the building water systems for different stages of occupancy.*
15. *Modified Section 9 to add referenced documents.*
16. *Modified Appendix A6.1 for health care facilities to allow flexibility for the Designated Team to determine if the procedures in parts of Appendix A6.1 are required and, if not, to provide a rationale. The referenced language of Section 7 was copied verbatim into Appendix A6.1.*

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3. DEFINITIONS OF TERMS

authority having jurisdiction (AHJ): an organization or office or individual responsible for enforcing the requirements of this standard.
beneficial occupancy: stage of construction at which all or part of a building is to be occupied for the purpose it was constructed, whether before or after completion.
~~***building survey:*** a review of building water systems, water devices and certain factors used to determine the compliance requirements of this standard.~~
disinfectant: chemical agent or physical ~~agents~~ treatments used to kill or inactivate pathogens.
non-potable: water that is not ~~intended for direct and indirect human contact or consumption~~ safe for drinking, personal or culinary utilization and that has the potential to cause harmful human exposure to *Legionella.*
water service disruption: planned or unplanned events that reduce water delivery pressure below 20 psi (140 kPa). caused by but not limited to new construction tie-ins, replacement of valves, hydrants, meters, pumping failures, pipeline breaks and other system repairs or emergency conditions.

4.1 Building Designer Requirements
4.1.1 Survey each new building design and its water systems to determine if the design contains any of the devices or factors that relate to legionellosis described in Section 5. If the building and associated property has:

a. any of the building water systems ~~devices~~ in Section 5.1, then all those building water systems ~~devices~~ shall comply with all applicable requirements of Section 8 of this standard
b. any of the factors listed in Section 5.2, then the new building design shall comply with the requirements of Section 8 of this standard.

4.2 Building Owner Requirements

4.2.1 The building owner ~~or designee~~ shall survey each existing building, new building and any renovation, addition or modification to an existing building and its water systems as ~~to determine if it contains any of the devices or factors that relate to legionellosis~~ described in Section 5. The survey and comformance with the compliance requirements of Section 4 must occur 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 ~~devices~~ listed in Section 5.1, then all those building water systems ~~devices~~ 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 ~~devices~~ listed in Section 5.1 shall comply with the requirements of Sections 6 and all applicable requirements of Section 7 of this standard.

4.2.2 The building owner ~~or designee~~ shall require the designer of any new building and renovation, addition or modification to an existing building to follow the requirements of Section 4.1 for the provided design.

4.2.3 The building owner ~~or designee~~ shall conduct and document the compliance determination in Section 4 of this standard at least once per year and anytime renovations, additions or modificaitons are made to the building.

5. Building Survery

5.1 The building shall be surveyed to determine whether it has one or more of the following:

a. open and closed circuit cooling towers or evaporative condensers that provide cooling and/or 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 non-potable water systems or devices that release water aerosols in the building or on the site.

6.2 Program Development. When the building survey required by Sections 4 and 5 indicates the presence of one or more of the building water systems ~~devices~~ listed in Section 5.1, but none of the factors listed in Section 5.2, a *Program* shall be implemented to manage the risk of *legionellosis* for those building water systems listed in 5.1. When the building survey required by Section 4 and 5 indicates the presence of one or more of the factors listed in Section 5.2, a *Program* shall be implemented to manage the risk of *legionellosis* for the potable building water systems and for building water systems listed in Section 5.1.. A summary of the program development steps are represented in Figure 1, Elements of a Water Management Program. The Program shall be detailed in a plan that embodies all of the principles described in Section 6.1 and shall include the following elements:

6.2.1 Program Team. Identification of the person(s) on the *Program Team* responsible for developing and implementing the *Program* 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 the building owner ~~or designee~~ has delegated authority and responsibility for the actions required by the *Program*. The *Program Team* can delegate *Program* tasks to subgroups. The *Program Team* shall have knowledge of the building water system design and water management as it relates to legionellosis ~~Legionnaires' disease as~~ that can be obtained through informative documents, such as ASHRAE Guideline 12.

6.2.2 Describe the Building Water Systems. The *Program Team* shall identify and describe the potable and non-potable water systems within the building and on the building site, including at a minimum:

a. the locations of end point uses of potable and non-potable water systems,
b. the location of water processing equipment and ~~device(s)~~components and how water is received and processed (conditioned, stored, heated, cooled, recirculated and deliver.

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 occur in the building water systems and determine where control measures can be applied to control potentially hazardous system conditions. The analysis shall also take into consideration the vulnerability of occupants and shall include the building water systems ~~equipment and devices~~ identified in Section 5.1. The analysis shall include provisions to respond to water service disruptions.

6.2.9 Documentation and Communication. The *Program Team* shall establish documentation and communication procedures for all activities of the Program. The *Program Team* is responsible for all water systems and for communication and coordination among sub-groups covering different portions of the building water system and associated equipment ~~and devices~~. A master document providing the location of all Program documents shall be maintained.

7.2.1 Equipment Siting. At the time of new or replacement cooling tower installation, drawings shall be reviewed and hazardous conditions related to the following siting issues shall be identified and addressed prior to beginning construction:

a. equipment siting issues that allow contamination from building systems or facility processes to be drawn into the equipment.
b. equipment siting issues that allow exhaust discharges to occupied spaces, trafficable areas, pedestrian thoroughfares, outside air intakes and building openings ~~cooling tower or evaporative condenser exhaust to infiltrate buildings and outside air intakes~~, and
c. equipment siting and access issues that inhibit required maintenance and inspection.
d.

7.4 ~~Decorative~~ Ornamental Fountains and Other Water Features. This section describes the preventative measures required for ~~decorative~~ ornamental fountains and other water features that release water aerosols in the building or on the site. ~~are associated with buildings~~. The *Program* documents shall include identification of the responsible persons for every step of each *Program* requirement.

7.4.1 Equipment Siting. At the time of new or replacement ~~decorative~~ ornamental fountain or other water feature installation, drawings shall be reviewed and hazardous conditions related to the following siting issues shall be identified and addressed prior to beginning construction:

a. organic contamination from adjacent sources,
b. inadequate drains and stagnant areas,
c. Inadequate access to pump(s), filter(s), tanks and treatment equipment, and
d. external heat sources and inadequate air flow that increase the temperature and thereby ~~could~~ increase the risk of exposure to *Legionella*.

7.4.4. Water Treatment. The *Program* documents shall include procedures for

a. the weekly cleaning, disinfection of equipment and components, and replacement of water in systems with total water volume less than 5 gallons (20 liters) or the periodic use of a disinfectant, the products to be applied and a requirement to follow disinfectant manufacturer's directions,
b. the periodic use of a disinfectant, the products to be applied and a requirement to follow disinfectant manufacturer's directions, for systems equal to or greater than 5 gallons (20 liters), and
c. maintaining water temperature within the control limits in the Plan.

8. Requirements for Designing Building Water Systems

8.1 General. When designing for new construction, renovation, refurbishment, replacement or repurposing a facility the following shall be documented:

a. A system overview and intended mode of system operation.
b. Documentation and design compliance to address hazardous conditions for each of the following shall be provided:
    i. schematic diagrams of water systems,
    ii. monitoring and control diagrams of water systems,
    iii. local, regional and national code compliance,
    iv. locations of access, fill, makeup, flush points, sampling points, temperature monitoring, and drain points,
    v. locations of outside air intakes,
    vi. building water equipment,
    vii. commissioning,
    viii. operating instructions and procedures,
    ix. maintenance schedules, frequencies, and procedures,
    x. ~~dead legs~~ no flow and low flow portions of the piping and building water systems,
    xi. impact of heat loss from hot water or heat gain by cold water in piping and water system components,
    xii. possible cross connections between potable and non-potable water, and
    xiii. inadequate access to water expansion tanks, water hammer arrestors, water storage tanks and water heaters and other equipment and components containing water.

8.2 Final Installation Documents

8.2.1. Drawings and documents of the actual installation shall be provided to the building owner or designee and shall include the following:

a. The location on each piece of equipment associated with the building water systems.
b. A drawing of the water distribution piping system, including system materials, pipe sizes, design flow rates, design temperatures, temperature monitoring points necessary to confirm design temperatures throughout the system, fill provisions, blow down provisions, makeup provisions, sampling points, treatment points and drain provisions.
c. The location of all outside air intakes.
d. Size and options for each piece of water system equipment.
e. Applicable control system wiring diagrams, schematics, ~~device~~equipment and component locations, calibration information, and operational sequences.
f. Material specifications for all building water system components.
g. Material specifications for all water systems insulation.
h. Safety Data Sheets (SDS) for applicable materials used for building water system treatment, cleaning, flushing, disinfecting, and sealing.
i. Installation requirements of all equipment.
j. Start-up requirements of all equipment.
k. Operational requirements of all equipment and systems.
l. Maintenance procedures for all equipment and water systems, including required actions, frequencies, and durations.

8.4 Commissioning. Detailed instructions for commissioning of all building water systems shall be provided by the designer in the plans and specifications. Commissioning ~~and~~ shall include:

~~a.~~ procedures for flushing and~~,~~ disinfection. ~~and instructions that disinfection shall be completed within two weeks prior to occupancy, and~~

i. Procedures shall meet the requirements of AWWA C651 or AWWA C652 or comply with all applicable national, regional and local regulations.

ii. Disinfection and flushing shall be completed within three weeks prior to whole or partial *beneficial occupancy*.

1. If *beneficial occupancy* of any part of the building is delayed more than 2 weeks but less than 4 weeks after disinfection, flushing of all fixtures shall again be completed.
2. If *beneficial occupancy* of any part of the building is delayed 4 weeks or more after disinfection, the need disinfection and/or flushing for unoccupied areas shall be determined by a risk assessment conducted by the water *Program Team.*

b. confirmation that building water system performance meets design performance parameters documented in Section 8.2.1 and 8.3.

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. AWWWA/ANSI C652-11, *Disinfection of Water Storage Facilities*
4. US Environmental Protection (EPA) DIS/TCC-12, EFFICACY DATA REQUIREMENTS Swimming Pool Water Disinfectants. April 23, 1979. (http://www.epa.gov/oppad001/dis_tss_docs/dis-12.htm)

NOTE TO REVIEWERS: Only the portions underlined are out for comment. The project committee copied verbatim the language in Section 7 to this section to make it easier for the user to use this section.

NORMATIVE APPEDNIX A HEALTH CARE FACILITIES

A6 BUILDING WATER SYSTEM PROCEDURES

A 6.1 The Legionellosis Risk Management Plan shall include procedures for the following building water systems or shall include a determination and rationale by the *Designated Team* for any procedures that are not required:

a. Potable water systems :

i. Systems Startup and Shutdown. The *Program* documents shall include procedures for:
1. Flushing and disinfection before commissioning any new system,
2. shutdown, including any draining, purging, cleaning treatment and control settings,
3. any unplanned loss of operating energy, loss of water treatment chemicals or system component repair or replacement,
4. restarting safely from a drained shutdown condition and from an un-drained (stagnant) shutdown condition,
5. monitoring and treatment following water supply interruptions or breaks in water supply piping, and
6. re-establishing required temperatures throughout the hot water distribution system.

ii. System Maintenance. The *Program* documents shall include procedures for:
1. inspection and the inspection schedule for water containing vessels and system components,
2. flushing or mixing of stagnant or low flow areas,
3. maintenance and monitoring procedures, based on equipment manufacturers' recommendations for cleaning, disinfection, replacement of system components and other treatments the *Program Team* decides are necessary for:
   a. hot and cold storage tanks
   b. ice machines
   c. water hammer arrestors
   d. expansion tanks
   e. water filters
   f. shower heads and hoses
   g. electronic faucets
   h. aerators
   i. faucet flow restrictors
   j. non-steam, aerosol generating humidifiers
   k. water heaters
   l. infrequently used equipment, including eyewash stations and showers
   m. other equipment identified by the *Program Team*
   n. maintaining and storing instructions and forms for inspection notes and a correction action log, and
   o. maintaining and sorting component and equipment operating manuals.

iii. Water Treatment The *Program* documents shall include the following:
1. monitoring method and schedule for temperature measurement in the hot and cold water systems,
2. monitoring method and schedule for measuring the chemical disinfectant residual or physical parameters in the hot and cold water system,
3. procedures to address water supply interruptions or breaks in water supply piping,
4. procedures and schedule for maintaining water treatment systems disinfectants, and

5. water treatment products, the procedures for their application and confirmation that the products comply with applicable regulations.

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 for the HVAC&R systems or other devices or systems in the building. The program documents shall include identification of the responsible persons for every step of each *Program* requirement.

i. System Maintenance. The *Program* documents shall include the following:

1. a schedule for inspections for general system cleanliness, drift eliminator condition, condition of fill material, and water distribution system operation,
2. requirements and the schedule for basin or remote sump cleaning and purging of stagnant or low flow zones, and
3. documentation requirements.

ii. Water Treatment. The *Program* documents shall include the water treatment requirements to control microbiological activity, scale and corrosion and shall also:

1. specify all equipment and chemicals used for the purpose of treating the open recirculating loop,
2. include the minimum required schedule for inspection, maintenance and monitoring and a corrective actions plan, and
3. identify the minimum requirements for documenting system water treatment.

iii. Shutdown and Startup - The *Program* documents shall include startup and shutdown requirements to manage hazardous conditions associated with operation of fans during untreated water conditions and procedures for the following:

1. shutdown that includes all chemical pretreatment steps, pump cycling protocols and procedures for system drainage for shutdown periods longer than the duration specified by the Program Team,
2. startup from a drained system, and
3. startup from an un-drained (stagnant) system that exceeds the number of idle days specified by the Program Team

iv. Disinfection of Cooling Towers and Evaporative Condensers - The *Program* documents shall include procedures and identify the responsible person for initiating the process for the following:

1. remedial disinfection while in operation, including the conditions that require its application, and
2. emergency disinfection, including the conditions that require its application.

v. Location of Cooling Tower Make-up Valve - The *Program* documents shall include requirements for the location of cooling tower make-up valve(s) and maintaining compliance with all applicable local, regional and national codes and regulations for air gaps and backflow preventers and the height of the discharge outlets and make-up valve over the rim of the overflow in the cooling tower or evaporative condenser basins. If no such codes and regulations exist for the location, then the Program shall include requirements for maintaining compliance with ASME/ANSI A112.1.2 for air gaps and for maintaining compliance with codes and regulations applicable to other locations, selected by the owner or designee, for backflow preventers and the height of the discharge outlets and make-up valve over the rim of the outflow in the cooling tower or evaporative condenser basins.

c. Pools and spas shall be operated and maintained in accordance with original equipment manufacturer (OEM) requirements.

d. Ornamental fountains and open water features:

i. Operation - The *Program* documents shall include a description of the procedures for:

1. draining, cleaning all components, disinfecting and refilling, if the water feature is not in operation for periods that exceed the number of idle days specified by the *Program Team,*
2. confirming submerged lights will not operate unless the circulating pump is running, and
3. confirming circulating pump(s) are running.

ii. Maintenance - The *Program* documents shall include procedures for regular cleaning and cleaning when the buildup of dirt, organic matter or other visible debris and maintaining pumps and filters, as recommended by the manufacturer.

iii. Water Treatment – The *Program* documents shall include procedures for

1. the weekly cleaning, disinfection of equipment and components, and replacement of water in systems with total water volume less than 5 gallons (20 liters) or the periodic use of a disinfectant, the products to be applied and a requirement to follow disinfectant manufacturer's directions,
2. the periodic use of a disinfectant, the products to be applied and a requirement to follow disinfectant manufacturer's directions, for systems equal to or greater than 5 gallons (20 liters), and
3. maintaining water temperature within the control limits in the Plan.

BSR/ASHRAE/SMACNA Standard 126-2008R

Public Review Draft

Method of Testing HVAC Air Ducts

Second Public Review (March 2015)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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

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

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Approved American National Standard
ANSI
www.ansi.org

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle NE, Atlanta, GA 30329 www.ashrae.org

Sheet Metal and Air Conditioning Contractors' National Association
4201 Lafayette Center Drive, Chantily, VA 20151 www.smacna.org

(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

First published in 2000, Standard 126 is a joint project of ASHRAE and SMACNA, the Sheet Metal and Air Conditioning Contractors' National Association. It was created to provide methods of testing to determine the strength and durability characteristics of HVAC ducts under various loading and environmental conditions. To the project committee's knowledge, no other publication covers all of the structural and durability tests as comprehensively as this standard, although individual tests are covered under other standards. The intent of this standard is to cover all duct shapes and materials.

A standardized set of comprehensive tests is used to ensure that products meet minimum structural requirements as well as to allow products to be compared to each other. Such tests should simulate structural stresses that the duct will experience in service and facilitate the application of safety factors. These tests include pressurizing the ductwork, applying superimposed loads, dropping weighted implements for impact or puncture, applying tension to the duct, bending flexible duct 180 degrees, subjecting the ductwork to temperature and humidity changes, and bursting or collapsing the ductwork under pressure. After an individual test or a series of tests, leakage tests may be conducted to determine the effect of a structural or durability test on a specimen. During a test or series of tests, the ductwork is observed to determine if there is degradation and permanent damage.

Pass/fail criteria are determined by the sponsoring agency, code officials, or other users of this standard. Recommended Acceptance Criteria are provided in Informative Annex C.

This is a review of Independent Substantive Changes that were made since the last public review. Areas where substantive changes have been made are highlighted in gray. In these areas, text that was removed from the previous public review is provided for reference but is shown in ~~double strikeout~~ and text that has been added is shown with double underlines. This notation allows changes between reviewed versions to be indicated while preserving the traditional meaning of italics and single strikeout to indicate changes to the standard.

Only the changes highlighted in gray are open to comment at this time. All other material in this standard is provided for context only and is not open for public review comment except as it relates to the proposed changes.

5. INSTRUMENTATION

5.1 Accuracy and Precision. ~~Measurements shall be made with an instrument or instrument system, including read-out devices, that meets the accuracy and precision requirements specified in Sections 5.2 through 5.5.*~~ Instruments shall be calibrated annually, in the range of use, employing test protocols and equipment traceable to the National Institute for Standards and Technology (NIST) or an equivalent agency. Instrument accuracy and precision shall be as follows:

a. Temperature measurements shall be made using devices with an accuracy equal to or better than 1°C and with a precision equal to or better than 0.5°C.

b. Pressure shall be measured with an accuracy equal to or better than 1.0 Pa and a precision equal to or better than 0.5 Pa.

c. Barometric pressure shall be measured with accuracy equal to or better than 25 Pa.

d. Flowmeters shall have an accuracy of 2% of reading.

5.2 Temperature ~~**Measurement**~~

5.2.1 Temperature instruments and measurements shall comply with ~~*ANSI/*~~*ASHRAE Standards 41.1*[2] and 41.6[3].

~~**5.2.2** Wet-bulb and dry-bulb thermometers, transducers, or sensors shall have an accuracy of ±0.5°C and a precision of ±0.25°C or better. Wet- and dry-bulb thermometers for psychrometers shall be matched.~~

~~* The systematic error in an instrument, which affects its accuracy, can be minimized by suitable calibration. Random error in an instrument, which affects its precision, may be reduced to some extent by choosing scale divisions to help in estimating values.~~

5.2.2. Calibration. Thermometers and temperature instruments shall be calibrated over the range of temperatures to be encountered during test. The calibration standard shall be a thermometer with a calibration that is traceable to NIST or an equivalent agency.

~~**5.2.3** Thermometers, transducers, and sensors shall be calibrated over the range of temperatures encountered during a test. This is done by using a reference thermometer having a calibration traceable to the National Institute of Standards and Technology (NIST).~~

5.2.3 Web-Bulb. The wet-bulb thermometer shall have a 3.5 to 10 m/s air velocity over the water-moistened wick-covered bulb or sensor. The dry-bulb thermometer shall be mounted upstream of the wet-bulb thermometer so its reading will not be depressed by the cooling effect of evaporated moisture.

~~**5.2.4** The wet-bulb thermometer shall be arranged to have a 3.5 to 10 m/s air velocity over the water-moistened wick-covered bulb or sensor. The dry-bulb thermometer shall be mounted~~

~~upstream of the wet-bulb thermometer so that its reading will not be depressed by the cooling effect of evaporated moisture.~~

5.3 Pressure ~~Measurement~~

~~**5.3.1** Pressure instruments and measurements shall comply with *ASHRAE Standard 41.3, Standard Method for Pressure Measurement*.[3]~~

5.3.1 Pressure indicating-instruments shall comply with *ASHRAE Standard 41.3*[4].

~~**5.3.2** Multicomponent pressure-measuring systems (for example, a system with a transducer, signal conditioner, and readout device) shall be calibrated at both ends of the scale and at least nine equally spaced intermediate points.~~

5.3.2 Calibration. Each pressure instrument shall be calibrated against a precision micromanometer or a water-filled hook gauge of the micrometer type at both ends of its scale and at least nine equally spaced intermediate points. The scale readability of the reference micromanometer or hook gauge shall be 0.25 Pa or better.

~~**5.3.3** Barometric pressure shall be measured by a mercury barometer with an accuracy of 25 Pa. If the barometer is to be used at a temperature different from that at which the barometer was calibrated, expansion of mercury and scale expansion corrections shall be made in compliance with Appendix B of ASHRAE Standard 41.3[3]. Local weather station and airport readings are acceptable in lieu of direct measurement.~~

~~**5.4 Flowmeters.** Flowmeters shall have an accuracy of 2% (of reading).~~

5.4 Barometers

5.4.1 Calibration. Barometers shall be calibrated against a barometer traceable to NIST or an equivalent agency.

5.5 Flowmeters. Flowmeter~~s~~ shall be an orifice or laminar flowmeter.

5.6 Dial Indicators. Dial indicators shall have jewel bearings, a suitable range, and 0.01 mm graduations.

ATIS-1000013.v2.2014

[Revision and Consolidation of ATIS-1000013.2007 and ATIS-1000013.a.2009]

American National Standard for Telecommunications

Lawfully Authorized Electronic Surveillance (LAES) for Internet Access and Services, Version 2

Alliance for Telecommunications Industry Solutions

Approved October 8, 2014

American National Standards Institute, Inc.

Abstract

Internet Access and Services can be obtained by establishing a subscription based arrangement. This standard provides capabilities to lawfully intercept communications of subscription-based Internet Access and Services arrangements.

NOTE - Annex A, *ASN.1 Definitions*, of this Standard has also been formatted as a separate plain text file and electronically packaged with this standard.

Annex A ASN.1 Definitions

(normative)

This annex provides the Abstract Syntax Notation One (ASN.1) [Ref 5] definitions for this Standard. CmII and CmC corresponding to ASN.1 definitions shall be encoded according to Basic Encoding Rules (BER) [Ref 16].

NOTE - This Annex has also been formatted as a separate plain text file and electronically packaged with this standard.

A.1 IAS CmII Abstract Syntax Module

```
IAS-LAES-CmII-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii(0) version-2015-(21)}

DEFINITIONS IMPLICIT TAGS ::=

BEGIN

IMPORTS

CaseIdentity, TimeStamp
FROM Laesp-j-std-025-b
{iso(1) member-body(2) us(840) tia(113737) laes(2) tr45(0) j-std-025(0) j-std-025-b(2) version-1(0)};

IAS-LAES-CmCC-Module-OID
FROM IAS-LAES-CmCC-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmcc(1) version-2 (1)};

iAS-LAES-CmII-Abstract-Syntax-Module-OID OBJECT IDENTIFIER ::=
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii(0) version-2015(21)}

IasProtocol ::= SEQUENCE {
    iAS-LAES-CmII-Abstract-Syntax-Module-OID         OBJECT IDENTIFIER,
    protocolIdentifier          IAS-LAES-CmII-Abstract-Syntax-Module-OID,
    iasMessage                                       IasMessage
}

IasMessage ::= CHOICE {
    access-Attempt                  [0] Access-Attempt,
    access-Accepted                 [1] Access-Accepted,
    access-Failed                   [2] Access-Failed,
    access-Session-End              [3] Access-Session-End,
    access-Rejected                 [4] Access-Rejected,
    access-Signaling-Message-Report [5] Access-Signaling-Message-Report,
    session-Start                   [6] Packet-Data-Session-Start,
    session-Failed                  [7] Packet-Data-Session-Failed,
    session-End                     [8] Packet-Data-Session-End,
    session-Already-Established     [9] Packet-Data-Session-Already-Established,
    data-Header-Report              [10] Packet-Data-Header-Report,
    data-Summary-Report             [11] Packet-Data-Summary-Report
}

-- Message Definitions

Access-Attempt ::= SEQUENCE {
    caseId                          [0] CaseIdentity,
    iAPSystemId                     [1] IAPSystemIdentity,
    timestamp                       [2] TimeStamp,
    subscriberIdentity              [3] SubscriberIdentity,
    accessMethod                    [4] AccessMethod                    OPTIONAL,
    networkAccessNodeIdentity       [5] NetworkAccessNodeIdentity       OPTIONAL,
    protocolSignal                  [6] ProtocolSignal                  OPTIONAL,
    ...
}

Access-Accepted ::= SEQUENCE {
    caseId                          [0] CaseIdentity,
    iAPSystemId                     [1] IAPSystemIdentity,
```

```
ContentIdentifier ::= OCTET STRING

HeaderSet ::= SEQUENCE {
    packetDataSessionID       [0] PacketDataSessionID,
    sourceIPaddress           [1] IpAddress,
    destinationIPaddress      [2] IpAddress,
    protocol                  [3] INTEGER,
    sourcePortNumber          [4] INTEGER                              OPTIONAL,
    destinationPortNumber     [5] INTEGER                              OPTIONAL,
    iPv6FlowLabel             [6] INTEGER                              OPTIONAL
    -- byteCount              [30] INTEGER                             OPTIONAL
               -- Reserved - This value is reserved for use by Annex G of this Standard.
}

InterceptedSignalingMessage ::= SEQUENCE {
    messageType               [0] MessageType,
    message                   [1] Value
}

IAPSystemIdentity ::= VisibleString

IAS-CCDeliveryFormat ::= CHOICE {
    ias-CmC-APDU              [1] IAS-LAES-CmCC-Module-OID
}

CmCAddress ::= SEQUENCE {
    leaIPAddress              [0] IpAddress,
    leaPortNumber             [1] INTEGER
}

IpAddress ::= CHOICE {
    ipV4                      [1] OCTET STRING(SIZE(4)),
    ipV6                      [2] OCTET STRING(SIZE(16))
}

LEA-CmC-Delivery ::= ContentIdentifier

Location ::= SET OF SEQUENCE {
    locationType              [0] UTF8String,
    location                  [1] UTF8String
}
MessageType ::= ENUMERATED {
    radius     (0),
    diameter   (1),
    xml        (2),
    asndot1    (3),
    other      (4)
}

NetworkAccessNodeIdentity ::= Value

PacketDataSessionID ::= Value

ProtocolSignal ::= SEQUENCE {
    protocol                  [0] Protocol,
    signal                    [1] SET OF Value
}

Protocol  ::=  CHOICE {
    radius                    [0] NULL,
    other                     [1] UTF8String
}

ReasonForTermination ::= Value

StreamSet ::= SET OF  SEQUENCE {
    packetDataSessionID       [0] PacketDataSessionID,
    sourceIPaddress           [1] IpAddress,
    destinationIPaddress      [2] IpAddress,
    packetCount               [3] INTEGER,
    protocol                  [4] INTEGER,
    sourcePortNumber          [5] INTEGER                              OPTIONAL,
    destinationPortNumber     [6] INTEGER                              OPTIONAL,
    iPv6FlowLabel             [7] INTEGER                              OPTIONAL,
    firstPacketTimestamp      [8] TimeSstamp,
    lastPacketTimestamp       [9] TimeSstamp
    -- byteCount              [30] INTEGER                             OPTIONAL
               -- Reserved - This value is reserved for use by Annex G of this Standard.
```

```
}

SubscriberIdentity ::= Value

Value ::= CHOICE {
    stringVS                [0] VisibleString,
    stringUTF8              [1] UTF8String,
    integer                 [2] INTEGER,
    octets                  [3] OCTET STRING,
    numeric                 [4] NumericString
}

END  -- of IAS-LAES-CmII-Abstract-Syntax-Module
```

A.2 IAS CmCC Abstract Syntax Module

```
IAS-LAES-CmCC-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmcc(1) version-2015(21)}

DEFINITIONS IMPLICIT TAGS ::=

BEGIN

IMPORTS

CaseIdentity, TimeStamp
FROM Laesp-j-std-025-b
{iso(1) member-body(2) us(840) tia(113737) laes(2) tr45(0) j-std-025(0) j-std-025-b(2) version-1(0)}

IAPSystemIdentity, ContentIdentifier
FROM IAS-LAES-CmII-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii(0) version-2015(21)};

iAS-LAES-CmCC-Module-OID OBJECT IDENTIFIER ::=
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmcc(1) version-2 (1)}

IAS-CC-APDU ::= SEQUENCE {
    cmcDeliveryHeader       [0] CMCDeliveryHeader,
    payload                 [1] OCTET STRING
}

CMCDeliveryHeader ::= SEQUENCE {
    correlationInfo         [0] SEQUENCE
                            {
                                caseId              [0] CaseIdentity,
                                iAPSystemId         [1] IAPSystemIdentity,
                                contentIdentifier   [2] ContentIdentifier
                            },
    timestamp               [1] TimeStamp,
    packetDirection         [2] PacketDirection                         OPTIONAL,
    sequenceNumber          [3] INTEGER                                 OPTIONAL
}

PacketDirection ::= ENUMERATED {
    fromSubject       (0),
    toSubject         (1)
}

END  -- of IAS-LAES-CmCC-Abstract-Syntax-Module
```

Table 20 – Information for Surveillance Change

Information Element	MOC	Conditions
Case Identity	M	
IAP System Identity	M	
Time Stamp	M	
Surveillance Status	M	

C.1.7 Surveillance Deactivation

The Surveillance Deactivation event occurs when the IASP deactivates a surveillance for an intercept subject for a particular LEA (i.e., the status of the surveillance has become *inactive*), based on the authorization submitted to the IASP by the LEA.

The Surveillance Deactivation event is considered to occur in the following case:

- The IASP deactivates surveillance for a particular intercept subject for a particular LEA.

Table 21 – Information for Surveillance Deactivation

Information Element	MOC	Conditions
Case Identity	M	
IAP System Identity	M	
Time Stamp	M	

C.2 IAS CmII Optional Messages Abstract Syntax Module

The same ASN.1 encoding as in Annex A is used.

```
IAS-LAES-CmII-Optional-Messages-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii-optional(2) version-2015(21)}

DEFINITIONS IMPLICIT TAGS ::=

BEGIN

IMPORTS

CaseIdentity, TimeStamp
FROM Laesp-j-std-025-b
{iso(1) member-body(2) us(840) tia(113737) laes(2) tr45(0) j-std-025(0) j-std-025-b(2) version-1(0)}

IAPSystemIdentity, IpAddressSet
FROM IAS-LAES-CmII-Abstract-Syntax-Module
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii(0) version-2015(21)};

iAS-LAES-CmII-Optional-Messages-Abstract-Syntax-Module-OID OBJECT IDENTIFIER ::=
{iso(1) member-body(2) us(840) tia(113737) laes(2) t1(1) t1-ias(1) cmii-optional(2) version-2015(21)}

IasOptionalProtocol ::= SEQUENCE {
    iAS-LAES-CmII-Optional-Messages-Abstract-Syntax-Module-OID      OBJECT IDENTIFIER,
    protocolIdentifier          IAS-LAES-CmII-Optional-Messages-Abstract-Syntax-Module-OID,
    iasOptionalMessage                                              IasOptionalMessage
}

IasOptionalMessage ::= CHOICE {
    serviceChange                   [0] ServiceChange,
    vpnSecurityEstablishment        [1] VPNSecurityEstablishment,
    vpnSecurityRelease              [2] VPNSecurityRelease,
    surveillanceActivation          [3] SurveillanceActivation,
```

```
    totalByteCount            [30] INTEGER                                  OPTIONAL
```

The following shows how the “totalByteCount” is inserted into the StreamSet parameter:.

```
StreamSet ::= SET OF SEQUENCE {
    packetDataSessionID       [0] PacketDataSessionID,
    sourceIPaddress           [1] IpAddress,
    destinationIPaddress      [2] IpAddress,
    packetCount               [3] INTEGER,
    protocol                  [4] INTEGER,
    sourcePortNumber          [5] INTEGER                                   OPTIONAL,
    destinationPortNumber     [6] INTEGER                                   OPTIONAL,
    iPv6FlowLabel             [7] INTEGER                                   OPTIONAL,
    firstPacketTimestamp      [8] TimesStamp,
    lastPacketTimestamp       [9] TimesStamp,
    totalByteCount            [30] INTEGER                                  OPTIONAL
}
```

Attachment 1
Substantive changes for recirculation – C670
Resolution of SCLB #31-14 Comments
1/20/15

The following technical or substantive revisions have been made to AWWA C670-09 in response to input received during the ballot for C670, SCLB #31-14, closing date of Sept. 24, 2014. The changes for consideration in this ballot are highlighted in yellow in the items below. The changes were proposed in response to 1 affirmative with comments and 1 negative with comments that were submitted with SCLB #31-14. (The tabulation of votes and the original ballots that were submitted are attached). Resolution took place during phone calls and emails with the commenters and the committee chair. Specific resolution of each comment submitted is shown in the attached Comments and Resolution matrix dated Oct. 27, 2014.

1. Add USEPA Method 334.0 to Sec. 3 References as follows:

USEPA Method 334.0 Determination of Residual Chlorine in Drinking Water Using and Online Chlorine Analyzer.

2. Add USEPA Method 334.0 as a sampling method in Sec. 4.6.5 as follows:

4.6.5 Sampling method. Chlorine residual analysis methods shall be followed for analysis in the field or laboratory. Refer to Standard Methods for the Examination of Water and Wastewater 4500-Cl for chlorine residual analysis procedures, ~~or to~~ Section IV of the USEPA Technical Notes on Drinking Water Methods (EPA/600/R-94/173) or USEPA Method 334.0.

3. Revise Sec. 5.1 to be consistent with USEPA Method 334.0 as follows:

Sec. 5.1 Instrument Verification

Instrument verification shall be performed weekly at a minimum (or more frequently if a reading is suspect) on online chlorine analyzers used in-plant. Instrument verification shall be performed monthly at a minimum (or more frequently if a reading is suspect) on online chlorine analyzers used in the distribution system. Online analyzers used for compliance shall verify calibration weekly (USEPA Method 334.0). Verification ensures that the online chlorine analyzer is operating properly by comparison of the online analyzer result to another analysis of comparable accuracy. The results of the analysis shall be within ±10 percent of the reference instrument. The verification requirements of the AHJ shall be

checked before establishing a schedule for routine instrument verification. Color comparators or other instrumentation based on visual color comparison are not accurate enough for calibration but may be acceptable for verification. Comparators shall not be used for verification if the monitor is being used to demonstrate regulatory compliance. Properly calibrated instrumentation that gives either digital or analog results and that is not subject to human interpretation of color is acceptable for either calibration or verification by comparison.

4. Replace "may" with "shall" in the last sentence of Sec. 4.8 to be consistent with the other sections as follows:

Sec. 4.8 Calibration Techniques

Analyzer calibration is used to set an appropriate measurement range and to adjust output to ensure that the analysis is both accurate and precise. Successful calibration indicates that the machine is in proper working order and able to track the chlorine concentration. Calibration of an online chlorine analyzer may be a one-point calibration (slope procedure only), a two-point calibration (zero and slope procedures), or an analog output signal calibration. In general, the following procedures shall ~~may~~ be used.

Background:

In the February 22, 2015 review of the comments issued during document D012A's ballot, one change was proposed and accepted by the assembled subcommittee that was considered substantive in nature, and thus, requires formal approval.

This ballot contains the following one changes issued for approval.

Ballot Content:

To the approved content of Draft Document D012A, to be formally identified as BICSI 006-2015, do the following:

Item 1)

Make the indicated change in Section 9.6.3.
Note: Addition indicated by underline, deletion indicated by ~~strikethrough~~

9 Management: Operations, Maintenance and Administration

9.6 DAS Security

9.6.3 DAS Pathways

~~Entrance to utility pathways used for DAS cables should be locked and monitored by security cameras.~~

~~Pull boxes, zone boxes, and junction boxes shall be located in controlled areas that are monitored by security cameras.~~

Pathways and pathway elements should be located to prevent tampering or vandalism. Monitoring and additional security measures may be required by the client or AHJ.

BSR/IAPMO Z1033-20yy

ANSI PUBLIC REVIEW DRAFT

Flexible PVC Hoses and Tubing for Pools, Hot Tubs, Spas, and Jetted Bathtubs

BSR/IAPMO Z1033-20yy
Flexible PVC Hoses and Tubing for Pools, Hot Tubs, Spas, and Jetted Bathtubs

1 Scope

1.1 Scope

1.1.1
This Standard covers flexible PVC hoses and tubing for use on pools, hot tubs, spas, and jetted bathtubs and specifies requirements for materials, physical characteristics, performance tests, and markings.

1.1.2
Flexible PVC hoses and tubing covered by this Standard are intended to be used on hot tub, spa, and jetted bathtub
(a) water circulation systems; and
(b) pneumatic systems.

1.2 Alternative Materials
The requirements of this Standard are not intended to prevent the use of alternative materials or methods of construction provided such alternatives meet the intent and requirements of this Standard.

1.3 Terminology
In this Standard,
(a) "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy to comply with the standard;
(b) "should" is used to express a recommendation, but not a requirement;
(c) "may" is used to express an option or something permissible within the scope of the standard; and
(d) "can" is used to express a possibility or a capability.

Notes accompanying sections of the Standard do not specify requirements or alternative requirements; their purpose is to separate explanatory or informative material from the text. Notes to tables and figures are considered part of the table or figure and can be written as requirements.

1.4 Units of Measurement
SI units are the primary units of record in global commerce. In this Standard, the inch/pound units are shown in parentheses. The values stated in each measurement system are equivalent in application, but each unit system is to be used independently. Combining values from the two measurement systems can result in non-conformance with this Standard.

4.1.4

Minimum dimensions for un-reinforced PVC tubing intended for pneumatic systems shall be as follows:

(a) wall thickness: 1.59 mm (0.0625 in);
(b) inside diameter: 4.76 mm (0.1875 in); and
(c) outside diameter: 7.94 mm (0.3125 in).

4.2 Materials

PVC compounds used for the manufacture of hoses and tubing shall

(a) comply with or exceed the properties of cell classification 3230600, 3240600, 4240600, 4250600, 4340600, or 4350600 as specified in ASTM D2287; and
Note: *Table 4 shows five of the physical properties specified in ASTM D2287 for PVC cell classifications and is included for information purposes only.*
(b) have a minimum elongation of 300% when determined in accordance with ASTM D638.

5 Testing Requirements

5.1 Burst Pressure Test

5.1.1 Test Procedure

The burst pressure test for flexible PVC hoses and tubing shall be conducted as follows:

(a) Select a 450 mm (18 in) test specimen.
(b) Gradually increase the pressure of the test specimen, within 60 to 70 s, to the corresponding burst pressure specified in Table 5, 6, or 7, as applicable.
(c) Maintain the pressure for 2 min.

5.1.2 Performance Requirement

The test specimen shall not leak or otherwise fail.

5.2 Burst Pressure Test for Tubing for Pneumatic Systems

5.2.1 Test Procedure

Flexible PVC tubing intended for pneumatic systems shall be tested in accordance with Section 5.1.1 at the hydrostatic burst pressures specified in Table 7 or five times the manufacturer's working pressures, whichever is greater.

5.2.2 Performance Requirement

The test specimen shall not leak or otherwise fail.

6 Markings

6.1

Flexible PVC hoses and tubing complying with this Standard shall be marked with the

(a) nominal size;
(b) manufacturer's name or trademark;
(c) recommended minimum bending radius;

Table 6
Pressure Requirements for Hoses with Fabric Reinforcement
(See Section 5.1.1)

Nominal Hose Size	Working pressures at 22 ºC (72ºF), kPa (psi)	Minimum Burst Pressures at	
		22 ºC (72ºF), kPa (psi)	60 ºC (140ºF), kPa (psi)
3/8	690 (100)	2,760 (400)	1,380 (200)
1/2	690 (100)	2,760 (400)	1,380 (200)
3/4	690 (100)	2,760 (400)	1,380 (200)
1	690 (100)	2,760 (400)	1,380 (200)
1-1/2	450 (65)	1,380 (200)	690 (100)

Note: *Temperatures are ±2 ºC (±4ºF).*

Table 7
Pressure Requirements for Un-Reinforced Tubing
(See Sections 5.1.1, and 5.2.1, and 5.3.1)

Nominal Tubing Size	Working pressures at 22 ºC (72ºF), kPa (psi)	Minimum Burst Pressures at	
		22 ºC (72ºF), kPa (psi)	60 ºC (140ºF), kPa (psi)
1/4	380 (55)	950 (138)	450760 (65110)
3/8	380 (55)	950 (138)	450760 (65110)
1/2	310 (45)	780 (113)	415620 (6090)
3/4	240 (35)	600 (87)	345480 (5070)
1	207 (30)	517 (75)	345415 (5060)

Notes:
(1) Temperatures are ±2 ºC (±4ºF).
(2) Non-reinforced tubing is not recommended for use downstream of the water heater.

NSF International

MEMORANDUM

TO: Joint Committee on Drinking Water Treatment Units

FROM: T. Duncan Ellison, Chairperson

DATE: February 27, 2015

SUBJECT: Proposed revision to NSF/ANSI 42 – *Drinking water treatment units – Aesthetic effects* (42i83r1), NSF/ANSI 44 – *Residential Cation Exchange Water Softeners* (44i38); NSF/ANSI 53 – *Drinking water treatment units – Health effects* (53i99); NSF/ANSI 55 – *Ultraviolet Microbiological Water Treatment System* (55i40); NSF/ANSI 58 – *Reverse Osmosis Drinking Water Treatment Systems* (58i68); and NSF/ANSI 62 – Drinking Water Distillation Systems (62i26)

Draft 1 of NSF/ANSI 42 issue 83, NSF/ANSI 44 issue 38, NSF/ANSI 53 issue 99, NSF/ANSI 55 issue 40, NSF/ANSI 58 issue 68, and NSF/ANSI 62 issue 26 are being forwarded to the Joint Committee for balloting. Please review the changes proposed to these standards and **submit your ballot by March 20, 2015** via the NSF Online Workspace.

When adding comments, please identify the section number/name for your comment and add all comments under one comment number where possible. If you need additional space, please upload a word or pdf version of your comments online via the browse function.

Purpose

The purpose of this ballot is to add clarification regarding the maximum number of samples exposed in the Materials section of NSF/ANSI 42, 44, 53, 55, 58 and 62.

Background

NSF has in the past tested components such as faucets with a maximum number of 8 test samples. The rationale is that the minimum draw volume on a DWTU could be reasonably considered one cup (or 250 mL). Since there is only one faucet on a DWTU, then the minimum exposure water drawn from each faucet was 250 mL. There has been a concern expressed, however, that this is not appropriate for small plumbing fittings since several could be used on a single DWTU.

Upon further investigation it was determined that in almost all cases where multiple fittings were used, it rarely exceeded two fittings for every pressure vessel in the DWTU. In most DWTUs that have the same fitting used more than twice, they were used on multiple pressure vessels that exceeded 250 ml in internal volume.

This provides the rationale that no more than 16 components be used to generate the 2L of exposure water (125 mL each). If the component can be identified as one that is used only once in a system (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each test sample.

P.O. Box 130140 Ann Arbor, MI 48113-0140 USA
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E-Mail: info@nsf.org Web:http://www.nsf.org

At the 2008 JC meeting, the committee unanimously voted in favor of balloting this issue, but it was never sent out for a vote. Please see the JC meeting summary excerpt and the original issue paper (DWTU-2008-10) under the referenced items for additional information.

If you have any questions about the technical content of the ballot, you may contact me in care of:

Chairperson, Joint Committee
c/o Monica Leslie
Joint Committee Secretariat
NSF International
Tel: (734) 827-5643
E-mail mleslie@nsf.org

[Note – the changes are seen below using strikeout for removal of old text and gray highlights to show the suggested text. ONLY the highlighted text is within the scope of this ballot.]

NSF/ANSI Standard
for Drinking Water Treatment Units –

Drinking water treatment units – Aesthetic effects

4 Materials

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4.2.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water-holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water-holding volume of the product is less than 2 L, sufficient samples shall be exposed to provide the required 2-L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

Reason: Revised* per *November 2008 JC Meeting discussion. For very small internal volume components such as plumbing fittings it is unreasonable to connect enough fittings to obtain 2L of internal volume. In most cases this means assembling over 500 fittings. This has no relevance to the actual end use of these fittings. In almost all cases you will not exceed two fittings for every pressure vessel in a system. Since 250 mL has been considered the minimum single use draw for sampling of DWTUs (one cup dispensed water), it is recommended that 125 mL (2 fittings for every 250 mL draw) be the minimum exposure volume.

NSF/ANSI Standard
for Drinking Water Treatment Units –

Residential cation exchange water softeners

4 Materials

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4.2.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water-holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water-holding volume of the product is less than 2 L, sufficient products shall be exposed to provide the required 2 L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

NSF/ANSI Standard
for Drinking Water Treatment Units –

Drinking water treatment units – Health Effects

4 Materials

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4.2.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water-holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water-holding volume of the product is less than 2 L, sufficient samples shall be exposed to provide the required 2-L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

NSF/ANSI Standard
for Drinking Water Treatment Units –

Ultraviolet microbiological water treatment units

4 Materials

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4.2.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water holding volume of the product is less than 2 L, sufficient products shall be exposed to provide the required 2-L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be

identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

NSF/ANSI Standard
for Drinking Water Treatment Units –

Reverse osmosis drinking water treatment systems

4 Materials

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4.4.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water-holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water-holding volume of the product is less than 2 L, sufficient samples shall be exposed to provide the required 2-L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

NSF/ANSI Standard
for Drinking Water Treatment Units –

Drinking water distillation systems

4 Materials

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4.2.3.3 A minimum sample volume of 2 L shall be collected at each sample point. If the water holding volume of the product is greater than 2 L, the entire volume shall be collected in a suitable collection vessel, and a 2-L subsample obtained from this volume. If the water holding volume of the product is less than 2 L, sufficient samples shall be exposed to provide the required 2-L volume of extractant water. The maximum number of samples exposed shall not exceed 16 with 125 mL of extractant water drawn from each sample. If the component has a water-holding volume that is less than 250 mL and is able to be identified as one that will only occur once in the flow path of dispensed treated water (such as diverters, faucets, RO shutoff valves, or specialty components) then a volume of 250 mL shall be drawn from each sample.

BSR/UL 67, Standard for Safety for Panelboards

1. *Revisions to Accessibility of Live Parts on Line Side of Service Disconnect for Paragraphs 5.4.2 and 5.4.5*

PROPOSAL

5.4.2 Panelboards ~~including~~ with provisions for only a single service disconnect shall be constructed such that, with the service disconnect in the off position, no ungrounded uninsulated live part is exposed to inadvertent contact by persons while servicing any field connected load terminal, including a neutral load terminal, a branch circuit equipment grounding terminal, or the neutral disconnect link. Exposure to inadvertent contact is determined by use of the probe illustrated in Figure 5.1.

5.4.5 Panelboards marked “Suitable for use as service equipment” and

a) Constructed in accordance with 5.7.4 and designed for use interchangeably either with main-terminal or a single service disconnect only, or

b) Provided with a single service disconnect,

shall be permitted to provide the protection from inadvertent contact in 5.4.2 in a field installable kit when marked in accordance with 32.12.12. See also 32.9.11.

BSR/UL 1004-7, Standard for Electronically Protected Motors

1. Remove requirement for abnormal switch requirements for electronically protected motors

PROPOSAL

~~3.2 ABNORMAL SWITCHING - Any aberration from the normal, intended signal being fed to the motor coils. This includes, but is not limited to, a change in pulse frequency, duty cycle, and timing (i.e., overlap, amplitude, and the like).~~

6.6 The electronic control evaluated by this Standard shall provide freedom from overheating of the motor caused by the following events:

a) Locked rotor;

b) Loss of phase (power supply phase, not motor phase); and

~~c) Abnormal switching; and~~

~~d)~~ c) Running heating (at manufacturer's option and declaration).

Table 6.1

Motor Control Correlation Table

UL 60730-1 Table 7.2DV item number	Information	Motor control requirement
6	Purpose of control	Protective control (temperature)
7	Type of load controlled	AC motor load
29	Type of disconnection or interruption	Any defined
39	Type 1 or Type 2 action	Type 2
40	Additional features	Must be declared as automatic or manual reset
49	Pollution degree	Pollution degree to be determined by reference to UL 1004-1, 18.9.
52	The minimum parameters of any heat dissipater (heat sink) not provided with an electronic control but essential to its correct operation	Must be specified
~~53~~	~~Output waveform if other than sinusoidal~~	~~Must be specified~~
58a	Required protection/immunity from mains borne perturbations, magnetic and electromagnetic disturbances	Required[a]
60	Surge immunity	IEC 61000-4-5 installation Class 3. Overvoltage category to be determined by reference to UL 1004-1, 18.9.
69	Software Class	~~Software Class B~~ Software Class A.

		Software specifically used to meet 6.6 (a), (b), or (c) shall meet Software Class B requirements.
74	External load and emission control measures to be used for test purposes	Intended motor

[a] For the purpose of the tests specified in Annex H, Section 26 of UL 60730-1, the products covered by this Standard should be considered as:

a) Installation Class 3 (See Annex R, UL 60730-1);

b) Overvoltage Category III for controls intended to be permanently wired;

c) Overvoltage Category II for controls intended to be cord connected; or

d) Test Level 3.

2. Addition of reference to UL 1004-2 in test method for over-temperature protection

PROPOSAL

7 ~~Application of UL 1004-3 to~~ Test Method on Controls used to Provide Overtemperature Protection for Motors

7.1 With reference to 1.2, motors with associated protection circuits shall be evaluated to the requirements of UL 1004-2 or UL 1004-3 in accordance with the operating functionality that is emulated by the control, i.e., that a circuit that operates in a manner similar to an automatically reset protector shall be tested and evaluated to the requirements contained in UL 1004-3 for automatically reset protection as an overtemperture protection means.