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CONTENTS

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Project Initiation Notification System (PINS)

Section 2.5.1 of the *ANSI Essential Requirements* (www.ansi.org/essentialrequirements) describes the Project Initiation Notification System (PINS) and includes requirements associated with a PINS Deliberation. Following is a list of PINS notices submitted for publication in this issue of ANSI Standards Action by ANSI-Accredited Standards Developers (ASDs). Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for information about American National Standards (ANS) maintained under the continuous maintenance option, as a PINS to initiate a revision of such standards is not required. Use the following Public Document Library url to access PDF & EXCEL reports of approved & proposed ANS: List of Approved and Proposed ANS. Directly and materially interested parties wishing to receive more information or to submit comments are to contact the sponsoring ANSI-Accredited Standards Developer directly **within 30 calendar days** of the publication of this PINS announcement.

AAMI (Association for the Advancement of Medical Instrumentation)

Jill Zajac <jzajac@aami.org> | 901 N. Glebe Road, Suite 300 | Arlington, VA 22203 www.aami.org

National Adoption

BSR/AAMI/ISO 8637-1-202x, Extracorporeal systems for blood purification - Part 1: Haemodialysers, haemodiafilters, haemofilters and haemoconcentrators (identical national adoption of ISO 8637-1:2024 and revision of ANSI/AAMI/ISO 8637-1-2017)
Stakeholders: Healthcare professionals, patients and medical device manufacturers

Project Need: ISO 8637-1:202x is deemed to be needed by the US National Committee to be proposed as an identical adoption for publication as an standard. This document is a revision of 8637-1:2017 and contains updates.

Interest Categories: Industry, User, General Interest, Regulatory/Government

This document specifies requirements and test methods for haemodialysers, haemodiafilters, haemofilters and haemoconcentrators, hereinafter collectively referred to as “the device”, for use in humans. This document does not apply to:
— extracorporeal blood circuits;
— plasmafilters;
— haemoperfusion devices;
— vascular access devices;
— blood pumps;
— systems to prepare, maintain or monitor dialysis fluid;
— systems or equipment intended to perform haemodialysis, haemodiafiltration, haemofiltration or haemoconcentration; and
— reprocessing procedures and equipment.

AAMI (Association for the Advancement of Medical Instrumentation)

Jill Zajac <jzajac@aami.org> | 901 N. Glebe Road, Suite 300 | Arlington, VA 22203 www.aami.org

National Adoption

BSR/AAMI/ISO 8637-2-202x, Extracorporeal systems for blood purification - Part 2: Extracorporeal blood and fluid circuits for haemodialysers, haemodiafilters, haemofilters and haemoconcentrators (identical national adoption of ISO 8637-2:2024 and revision of ANSI/AAMI/ISO 8637-2-2018)
Stakeholders: Healthcare professionals, patients and medical device manufacturers

Project Need: ISO 8637-2:202x is deemed to be needed by the US National Committee to be proposed as an identical adoption for publication as an standard. This document is a revision of 8637-2:2018 and contains updates.

Interest Categories: Industry, User, General Interest, Regulatory/Government

This document specifies requirements for disposable extracorporeal blood and fluid circuits and accessories used in combination with haemodialysis equipment intended for extracorporeal blood treatment therapies such as, but not limited to, haemodialysis, haemodiafiltration, haemofiltration.
This document does not apply to:
— haemodialysers, haemodiafilters or haemofilters;
— plasmafilters;
— haemoperfusion devices;
— vascular access devices.

AAMI (Association for the Advancement of Medical Instrumentation)

Jill Zajac <jzajac@aami.org> | 901 N. Glebe Road, Suite 300 | Arlington, VA 22203 www.aami.org

National Adoption

BSR/AAMI/ISO 8637-3-202x, Extracorporeal systems for blood purification - Part 3: Plasmafilters (identical national adoption of ISO 8637-3:2024 and revision of ANSI/AAMI/ISO 8637-3-2018)
Stakeholders: healthcare professionals, patients and medical device manufacturers

Project Need: ISO 8637-3:202x is deemed to be needed by the US National Committee to be proposed as an identical adoption for publication as an standard. This document is a revision of 8637-3:2018 and contains updates.

Interest Categories: Industry, User, General Interest, Regulatory/Government

This document specifies requirements and test methods for plasmafilters, a device intended for the separation of plasma from blood in therapeutic plasmapheresis therapy. It specifies the requirements for sterile, single-use plasmafilters, intended for use on humans, hereinafter collectively referred to as “the device”, for use in humans. This document does not apply to;
— extracorporeal blood circuits;
— haemodialysers, haemodiafilters, haemofilters, and haemoconcentrators;
— haemoperfusion devices;
— vascular access devices;
— blood pumps;
— systems or equipment intended to perform plasma separation.

ARESCA (American Renewable Energy Standards and Certification Association)

George Kelly <secretary@aresca.us> | 256 Farrell Farm Road | Norwich, VT 05055 www.aresca.us

National Adoption

BSR/ARESCA 61400-9-202x, Wind energy generation systems – Part 9: Probabilistic design measures for wind turbines (identical national adoption of IEC TS 61400-9:2024)
Stakeholders: U.S. wind developers and investors, Certified Verification Agents (CVAs), Bureau of Safety and Environmental Enforcement (BSEE), Bureau of Ocean Energy Management (BOEM), U.S. Department of the Interior (DOI)

Project Need: The ambitious plans for development of wind energy projects requires a consistent and comprehensive set of industry-based consensus standards. This IEC document is directly applicable as an ANS for such projects.

Interest Categories: End users, OEMs, Industry, General interest

Identical adoption of IEC TS 61400-9:2024.

ARESCA (American Renewable Energy Standards and Certification Association)

George Kelly <secretary@aresca.us> | 256 Farrell Farm Road | Norwich, VT 05055 www.aresca.us

National Adoption

BSR/ARESCA 61400-60-202x, Wind energy generation systems - Part 60: Validation of computational models (identical national adoption of IEC PAS 61400-60:2024)
Stakeholders: U.S. wind developers and investors, Certified Verification Agents (CVAs), Bureau of Safety and Environmental Enforcement (BSEE), Bureau of Ocean Energy Management (BOEM), U.S. Department of the Interior (DOI)

Project Need: The ambitious plans for development of wind energy projects requires a consistent and comprehensive set of industry-based consensus standards. This IEC document is directly applicable as an ANS for such projects.

Interest Categories: End users, OEMs, Industry, General interest

Identical adoption of IEC PAS 61400-60:2024

ARESCA (American Renewable Energy Standards and Certification Association)

George Kelly <secretary@aresca.us> | 256 Farrell Farm Road | Norwich, VT 05055 www.aresca.us

National Adoption

BSR/ARESCA 61400-11-2-202x, Wind energy generation systems - Part 11-2: Measurement of wind turbine noise characteristics in receptor position (identical national adoption of IEC TS 61400-11-2:2024)
Stakeholders: U.S. wind developers and investors, Certified Verification Agents (CVAs), Bureau of Safety and Environmental Enforcement (BSEE), Bureau of Ocean Energy Management (BOEM), U.S. Department of the Interior (DOI)

Project Need: The ambitious plans for development of wind energy projects requires a consistent and comprehensive set of industry-based consensus standards. This IEC document is directly applicable as an ANS for such projects.

Interest Categories: End users, OEMs, Industry, General interest

Identical adoption of IEC TS 61400-11-2:2024.

ARESCA (American Renewable Energy Standards and Certification Association)

George Kelly <secretary@aresca.us> | 256 Farrell Farm Road | Norwich, VT 05055 www.aresca.us

National Adoption

BSR/ARESCA 61400-24.1-202x, Amendment 1 - Wind energy generation systems - Part 24: Lightning protection (identical national adoption of IEC 61400-24 AMD1:2024)
Stakeholders: U.S. wind developers and investors, Certified Verification Agents (CVAs), Bureau of Safety and Environmental Enforcement (BSEE), Bureau of Ocean Energy Management (BOEM), U.S. Department of the Interior (DOI)

Project Need: The ambitious plans for development of wind energy projects requires a consistent and comprehensive set of industry-based consensus standards. This IEC document is directly applicable as an ANS for such projects.

Interest Categories: End users, OEMs, Industry, General interest

Identical adoption of IEC 61400-24 AMD1:2024.

AWPA (ASC O5) (American Wood Protection Association)

Nicole Butler <email@awpa.com> | 2430 US Highway 27 STE #330-223 | Clermont, FL 34714 www.awpa.com

Revision

BSR O5.2-202X, Structural Glued Laminated Timber for Utility Structures (revision of ANSI O5.2-2020)
Stakeholders: Electric and communications utilities and laminated wood product manufacturers

Project Need: General technical review and update of existing American National Standard,

Interest Categories: Producers, Consumers, General Interest

This standard covers requirements for manufacturing and quality control of structural glued laminated timber of Southern Pine (longleaf, slash, shortleaf, loblolly), Coast Douglas-fir, Hem-Fir, and other species of similar treatability for electric power and communication structures. The requirements are based on those in standard for Structural Glued Laminated Timber, ANSI A190.1. This standard is supplemental to ANSI A190.1 and provides descriptions of the special manufacturing and design requirements for glued laminated utility structures.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA B101-202x, Precoat Filter Media (revision of ANSI/AWWA B101-2022)
Stakeholders: Water treatment and supply industry. Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for precoat filtration media, including physical, chemical, packaging, shipping, and testing requirements.

Interest Categories: User, Producer, and General Interest

This standard describes diatomaceous earth (DE), perlite, and other disposable filter materials used to precoat filters for water supply service.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA B305-202x, Anhydrous Ammonia (revision of ANSI/AWWA B305-2023)
Stakeholders: Water treatment and supply industry. Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for anhydrous ammonia, including physical, chemical, sampling, testing, packaging, and shipping requirements.

Interest Categories: User, Producer, and General Interest

This standard describes the use of anhydrous ammonia in the treatment of potable water, wastewater, and reclaimed water. Anhydrous ammonia is expressed by the formula NH3. Anhydrous means free from water.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA B306-202x, Aqua Ammonia (Liquid Ammonium Hydroxide) (revision of ANSI/AWWA B306-2023)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for aqua ammonia, including physical, chemical, sampling, packaging, shipping, and testing requirements.

Interest Categories: User, Producer, and General Interest

This standard describes aqua ammonia (liquid ammonium hydroxide) for use in the treatment of potable water, wastewater, or reclaimed water.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA B404-202x, Liquid Sodium Silicate (revision of ANSI/AWWA B404-2023)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for liquid sodium silicate, including physical, chemical, sampling, testing, packaging, and shipping requirements.

Interest Categories: User, Producer, and General Interest

This standard describes liquid sodium silicate used in the preparation of activated silica, which is used as a coagulant aid for the treatment of potable water, wastewater, or reclaimed water and for (1) the control of corrosion and (2) stabilization of iron and manganese.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C208-202x, Dimensions for Fabricated Steel Water Pipe Fittings (revision of ANSI/AWWA C208-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide formulas for use in calculating the general minimum requirements for the dimensions of fabricated steel water pipe fittings.

Interest Categories: User, Producer, and General Interest

This standard provides formulas to calculate overall dimensions of fittings for steel water transmission and distribution facilities.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C216-202x, Heat-Shrinkable Cross-Linked Polyolefin Coatings for Steel Water Pipe and Fittings (revision of ANSI/AWWA C216-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for heat-shrinkable coatings, including material, application, inspection, testing, marking, and packaging.

Interest Categories: User, Producer, and General Interest

This standard describes the material, application, and field-procedure requirements for protective exterior coatings consisting of heat-shrinkable cross-linked polyolefin coatings. This standard also describes the application of protective exterior coatings to special sections, connections, and fittings to be used in underground and underwater steel water pipelines.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C227-202x, Bolted, Split-Sleeve Couplings (revision of ANSI/AWWA C227-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for bolted, split-sleeve couplings for pipe, including requirements for materials, design, testing and inspection, installation, marking, and shipping.

Interest Categories: User, Producer, and General Interest

This standard describes bolted, split-sleeve couplings (couplings) used to join pipe of similar outside diameter. Couplings may be manufactured from carbon steel or stainless steel and are intended for use in systems conveying potable water, wastewater, reclaimed water, or air used in water treatment.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C232-202x, Visco-Elastic Coatings for Steel Water Pipe and Fittings (revision of ANSI/AWWA C232-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide minimum performance requirements for viscoelastic coating systems for the exterior of steel water pipelines, including system components, application, inspection, testing, marking, and packaging requirements.

Interest Categories: User, Producer, and General Interest

This standard describes the materials and application of viscoelastic coating systems to the exterior of steel water pipe and fittings to be used for underground and underwater service. The coating system has a viscoelastic compound as a corrosion-prevention layer that shall be based on either polyisobutene (PIB) or amorphous polyalphaolefin (APAO).

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C522-202x, Rotary Cone Valves, 6 In. Through 60 In. (150 mm Through 1,500 mm) (revision of ANSI/AWWA C522-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for 6-in. through 60-in. (150-mm through 1,500-mm) rotary cone valves for water, wastewater, and reclaimed water supply service, including material, design, inspection, testing, marking, handling, and packaging for shipment.

Interest Categories: User, Producer, and General Interest

This standard covers gray-iron, ductile-iron, and cast or weld fabricated-steel or stainless steel flanged-end, low-leakage trunnion-mounted, full-port, two(2)- and four(4)-seated rotary cone valves for pressures up to 300 psi (2,100 kPa) in sizes from 6-in. through 60-in. (150-mm through 1,500-mm) diameter for use in water, wastewater, and reclaimed water systems having water with a pH greater than 6 and less than 12 and with temperatures greater than 32 degrees F (0 degrees C) and less than 125 degrees F (52 degrees C).

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C606-202x, Grooved and Shouldered Joints (revision of ANSI/AWWA C606-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for grooved and shouldered joints, including materials, dimensions, tolerances, inspection, proof of design procedures, markings, and production testing.

Interest Categories: User, Producer, and General Interest

This standard describes grooved and shouldered joints for ductile-iron pipe (DIP), metallic pressure pipe of iron pipe size (IPS), fittings, and other components for water, wastewater, reclaimed water, and other services. The standard describes 4-in. through 36-in. (100-mm through 900-mm) diameter grooved ductile-iron pipe; 3/4-in. through 24-in. (19-mm through 600-mm) diameter grooved steel, aluminum, brass, and other metallic pipe of IPS dimensions; and 4-in. through 64-in. (100-mm through 1,600-mm) nominal diameter shouldered ends for ductile-iron pipe and metallic pipe. Joint sizes other than those listed are outside the scope of this product standard.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C707-202x, Encoder-Type Remote-Registration Systems for Cold-Water Meters (revision of ANSI/AWWA C707-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for encoder-type remote-registration systems for cold-water meters, including fabrication and assembly.

Interest Categories: User, Producer, and General Interest

This standard covers encoder-type remote-registration systems for use on cold-water meters for water utility customer service, particularly the materials and workmanship employed in the fabrication and assembly of the on-meter registers.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C904-202x, Crosslinked Polyethylene (PEX) Pressure Tubing, 1/2 In. Through 3 In., for Water Service (revision of ANSI/AWWA C904-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the requirements for materials, design, testing and inspection, and shipping of PEX tubing for use as service lines in the construction of underground water distribution systems.

Interest Categories: User, Producer, and General Interest

This standard describes crosslinked polyethylene (PEX) pressure tubing made from material having a standard PEX material designation code of PEX 1306, or higher, according to ASTM F876 and intended for use as underground potable water, reclaimed water, and wastewater service lines in nominal sizes 1/2 in. through 3 in. that conform to a standard dimension ratio of SDR9. Tubing may incorporate an optional polymeric outer layer. Included in this standard are criteria for classifying PEX tubing materials and a system of nomenclature, requirements, and test methods for materials and tubing. Marking requirements are given. Design, installation, and application considerations are discussed in the Foreword and in Appendix A of this standard.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C104/A21.4-202x, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings (revision of ANSI/AWWA C104/A21.4-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide the minimum requirements for shop-applied cement–mortar linings for ductile-iron pipe and ductile-iron and gray-iron fittings for potable water, raw water, wastewater, and reclaimed water systems, including requirements for cement, sand, water, and mortar; surface of pipe and fittings for lining; method and thickness of lining; and curing.

Interest Categories: User, Producer, and General Interest

This standard describes shop-applied cement–mortar linings specified in the ANSI/AWWA C100/A21 series of standards for ductile-iron pipe and ductile-iron and gray-iron fittings for potable water, raw water, wastewater, and reclaimed water systems and is intended to be used as a supplement to those standards.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA C116/A21.16-202x, Protective Fusion-Bonded Coatings for the Interior and Exterior Surfaces of Ductile-Iron and Gray-Iron Fittings (revision of ANSI/AWWA C116/A21.16-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide purchasers, manufacturers, and applicators with the minimum requirements for fusion-bonded coatings and linings for the interior and exterior of fittings.

Interest Categories: User, Producer, and General Interest

This standard describes protective fusion-bonded coatings for the interior and exterior surfaces of ductile-iron and gray-iron fittings used for raw water, potable water, reclaimed water systems, and nonaggressive wastewaters. The standard describes the material, application, and performance requirements for these coatings.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA E110-202x, Solids Handling Pumps for Wastewater Applications (revision of ANSI/AWWA E110-2022)
Stakeholders: Water treatment and supply industry. Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide minimum requirements for wastewater pumps of the types identified.

Interest Categories: User, Producer, and General Interest

This standard provides minimum requirements for solids handling pumps for installation in wastewater treatment plants and wastewater collection systems. Pumps described in this standard are intended for pumping wastewater having a pH range between 5.5 and 10.0, a temperature range from 33 deg F to 125 deg F (1 deg C to 52 deg C), and a maximum chloride content of 250 PPM (250 mg/L). The solid content of the wastewater fluid is less than 2 percent by volume. Driver power range is 2–1,500 hp (1.5–1,119 kW). Rate of flow (at BEP) is 15–40,000 gpm (3.4–9,100 m3/h).

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA F110-202x, Ultraviolet Disinfection Systems for Drinking Water (revision of ANSI/AWWA F110-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide a minimum set of requirements for UV systems for drinking water treatment systems. This standard is intended to assist with the design, procurement, installation, and commissioning of UV disinfection systems.

Interest Categories: User, Producer, and General Interest

This standard sets the minimum requirements for closed-vessel ultraviolet (UV) disinfection systems and equipment elements used for drinking water disinfection of Cryptosporidium, Giardia, and viruses. It does not include wastewater, reclaimed water, reuse, or advanced oxidation treatment. Equipment and elements covered under this standard include UV reactors, related appurtenances, and reactor validation.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA F130-202x, Aeration Systems for Biological Wastewater Treatment (revision of ANSI/AWWA F130-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to provide a minimum set of requirements for aeration systems for biological wastewater treatment. This standard is intended to assist with the design, procurement, installation, and commissioning of aeration systems.

Interest Categories: User, Producer, and General Interest

This standard describes the minimum requirements for aeration systems and equipment used in biological wastewater treatment. This standard does not cover Aeration Systems in potable water applications, such as air strippers or degasifiers. This standard describes three specific categories of aeration systems: Diffused Air, Jet Aeration, and Mechanical Surface Aeration.

AWWA (American Water Works Association)

Paul Olson <polson@awwa.org> | 6666 W. Quincy Avenue | Denver, CO 80235 www.awwa.org

Revision

BSR/AWWA G440-202x, Emergency Preparedness Practices (revision of ANSI/AWWA G440-2022)
Stakeholders: Water treatment and supply industry; Water utilities, consulting engineers, water treatment equipment manufacturers, etc.

Project Need: The purpose of this standard is to define the minimum emergency preparedness requirements for water, wastewater, and reclaimed water utilities and associated assets; to respond to emergencies and restore normal operations; and to minimize disruption of critical lifeline services that are essential to public health, fire protection, sanitation, economic activity, and consumer confidence.

Interest Categories: Utility/User, Service Provider/Consulting Services, Management Interest

This standard covers the minimum requirements to establish and maintain an acceptable level of emergency preparedness based on the identified and perceived risks facing utilities within the water sector.

MHI (Material Handling Industry)

Patrick Davison <pdavison@mhi.org> | 8720 Red Oak Boulevard, Suite 201 | Charlotte, NC 28217 www.mhi.org

New Standard

BSR MH31.3-202X, Test Method for Topple Barrier Static Load and Creep (new standard)
Stakeholders: Manufacturers, distributors, and users of material handling and protective guarding equipment, and testing laboratories who evaluate protective guarding performance.

Project Need: Prior to the adaptation of this standard, no standardized test method had been established to assess the load performance of these devices. Over the years, many manufacturers and suppliers of these products have performed independent testing based on a wide range of non-standardized parameters. The findings from these personalized tests have been published in marketing literature or data sheets aimed at assisting consumers with the selection process prior to purchase. It is important to note that ratings achieved in accordance with this procedure are based strictly on the criteria outlined herein. Performance under conditions other than those specifically tested can vary significantly.

Interest Categories: Manufacturer, user, distributor/integrator, laboratory/academia, general interest.

This standard provides a test method for evaluating static load and creep performance characteristics for topple barriers. A topple barrier is a guard similar in appearance to a tall fence engineered to withstand the impact from unstable or falling stacked objects, while preventing them from tumbling into areas where personnel, other products, or machinery can be located. Topple barriers consist of vertical posts and horizontal rails and/or mesh capture sections. Posts are equipped with baseplates which are fastened to the floor with anchors. Topple barriers can be constructed from a variety of materials and can come in a variety of sizes.

NECA (National Electrical Contractors Association)

Jeff Noren <Jeff.Noren@NECAnet.org> | 1201 Pennsylvania Avenue, Suite 1200 | Washington, DC 20004 www.neca-neis.org

New Standard

BSR/NECA 121-202X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground Feeder and Branch-Circuit Cable (Type UF) (new standard)
Stakeholders: Electrical contractors and their customers, Inspectors, Specifiers, Electricians, and Engineers.

Project Need: National Electrical Installation Standards (developed by NECA in partnership with other industry organizations) are the first performance standards for electrical construction. They go beyond the basic safety requirements of the National Electrical Code to clearly define what is meant by installing products and systems in a "professional and skillful" manner.

Interest Categories: Construction, General Interest, Producer, and Government

1.1 Products and Applications Included: This standard describes installation procedures for nonmetallic-sheathed cable (Type NM-B) and underground feeder and branch-circuit cable (Type UF). This publication covers the following: (1) Nonmetallic-sheathed cable with insulation rated 90°C (194°F), listed as Type NM-B; (2) Underground feeder and branch-circuit cable, Type UF. 1.2 Products and Applications Excluded: This publication does not cover the following: (1) Nonmetallic-sheathed cable with insulation rated 60°C (140°F), listed as NM; (2) Corrosion-resistant nonmetallic-sheathed cable (Type NMC).

NEMA (ASC C12) (National Electrical Manufacturers Association)

Paul Orr <Pau_orr@nema.org> | 1300 North 17th Street, Suite 900 | Rosslyn, VA 22209 www.nema.org

New Standard

BSR C12.25-202x, Construction and Mounting of Enclosures for Network Lighting Controllers (NLCs) when Applied to Electricity Metering in Non-lighting applications (new standard)
Stakeholders: Electric Utilities, Meter Mounting and Testing Manufacturers, Meter manufacturers

Project Need: Need to develop to address an industry need.

Interest Categories: Users, Producers and General Interest

To develop a Standard for the construction and mounting of enclosures for Network Lighting Controllers (NLCs) when Applied to Metering of electricity in Non-lighting applications.

ULSE (UL Standards & Engagement)

Megan Monsen <megan.monsen@ul.org> | 1603 Orrington Ave, Suite 2000 | Evanston, IL 60201 https://ulse.org/

New Standard

BSR/UL 3202-202x, Standard for Safety for Mobile Electric Vehicle Charging Systems Integrated with Energy Storage Systems (new standard)
Stakeholders: This standard will apply to a large cross section of groups and individuals. These specific individuals would include: producers, supply chain, trade associations, commercial/industrial users, regulators, and government.

Project Need: ULSE is seeking ANSI approval on a new joint standard for the US and Canada, UL 3202. There are currently no consensus standards published in the US and Canada for Mobile Electric Vehicle Charging Systems Integrated with Energy Storage Systems. This proposed joint standard for the US and Canada, UL 3202, is needed to cover systems that are used for charging of electric vehicles.

Interest Categories: AHJ, Producer, Testing & Standards Organization, General, Supply Chain, and Government

This first issue of the Standard for Safety for Mobile Electric Vehicle Charging Systems Integrated with Energy Storage Systems, UL 3202, is intended to be a joint standard for the US and Canada. These requirements detail the specifications for electric vehicle (EV) charging systems that include conductive EV supply equipment, possibly integrated with energy storage systems, either housed separately or within the EV supply equipment itself. Such systems may receive inputs from various sources like generators, photovoltaic arrays, or grid power, but their output is dedicated exclusively to recharging electric vehicles. The guidelines ensure the safety and compatibility of integrated subsystems and stipulate that these systems, designed for outdoor use per the National Electrical Code (NFPA 70), can be movable or relocatable, potentially autonomous, and might not always be connected to a grid power source, with explicit prohibition against back feeding power into the grid. However, systems offering multiple outputs, including EV charging, fall outside these requirements' scope.

Call for Comment on Standards Proposals

American National Standards

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. e-mail: psa@ansi.org
* Standard for consumer products

Comment Deadline: June 23, 2024

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

180 Technology Parkway, Peachtree Corners, GA 20092 | knguyen@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum d to ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2022)
This proposed addendum to ANSI/ASHRAE Standard 15-2022 addresses changes of refrigerant to existing refrigeration systems, whether for changes within the same refrigerant safety group or to a different refrigerant safety group. The modifications apply to Sections 5.3, 7.7.3, 7.6.2, Informative Appendix A, and a new Informative Appendix H that provides guidelines for retrofit of certain types of refrigeration systems. This proposed change clarifies requirements for refrigeration systems retrofitted or recommissioned with a new refrigerant designation. When the new refrigerant is classified (by ASHRAE Standard 34) in a different safety group than the original refrigerant, the equipment must meet the requirements of this standard for a new installation, with some provisions to address the listing requirements. For example, changing from safety group A1 to safety group A2L, A2, or A3 will require modifications such as refrigerant leak detection and mitigation (where applicable), as specified in UL/CSA 60335-2-89 2nd edition (2021) or UL/CSA 60335-2-40 4th edition (2022). The change of refrigerant to a new safety group will be required to be evaluated by a National Recognized Testing Laboratory (NTRL) or be approved by the Authority Having Jurisdiction (AHJ).
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: June 23, 2024

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

180 Technology Parkway, Peachtree Corners, GA 20092 | knguyen@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum j to ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2022)
This proposed addendum removes the exception of Section 7.5.3 which allowed the use of an A3 or B3 refrigerant outdoors with no restriction other than the total charge limitation of Section 7.5.1.1. The proposal also removes the exception of Section 7.8 which allowed without restriction the outdoor use of an A2 refrigerant in high-probability systems for other than human-comfort. These exceptions were added under Addendum l for the 2019 edition of ASHRAE 15 and created an unintended loophole that permitted charge limits of up to 1100 lb (500 kg) if the refrigerating system is installed outdoors. Removal of the exception to Section 7.5.3 does not prohibit the installation of equipment outdoors using A3 or B3 refrigerants. Group A3 and B3 refrigerants may still be used outdoors if they are listed or not listed but approved by the AHJ. At this time, ASHRAE 15 does not address how all equipment must be installed outdoors when utilizing an A2, A3, or B3 refrigerant and there are safety concerns about how refrigerant may leak into spaces surrounding the refrigeration system. Additionally, the term “refrigeration system” replaced “systems” in Section 7.8.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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

180 Technology Parkway, Peachtree Corners, GA 20092 | knguyen@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum n to ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2022)
This proposed addendum n to ASHRAE Standard 15-2022 modifies portions of the document to improve readability of Section 9.3.1.1 to clarify the section may be satisfied by simply complying with a, or b, or c. Additionally, the addendum correctly incorporates language that had previously been an exception.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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

180 Technology Parkway, Peachtree Corners, GA 20092 | knguyen@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum r to ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (addenda to ANSI/ASHRAE Standard 15-2022)
ASHRAE RP-1807 investigated best practices for the handling, transportation, and storage of flammable refrigerants and the installation, servicing, and decommissioning of HVAC&R equipment containing flammable refrigerants.The investigators compared requirements in safety standards outside the US (e.g., Japan and Europe) with those in the US. Based on their research, the authors identified gaps in safety standards in the US and made recommendations to address these gaps. ASHRAE MTG.lowGWP tasked SSPC15 with reviewing the final report of RP□1807 and revising ASHRAE Standard 15 where appropriate. This addendum proposes changes to the standard based on RP-1807.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Online Comment Database at https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

Comment Deadline: June 23, 2024

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

180 Technology Parkway, Peachtree Corners, GA 30092 | tloxley@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE/ICC/IES/USGBC Addendum e to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020, Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/ICC/IES/USGBC Standard 189.1-2020)
The addendum expands the coverage of cool roof surfaces from 75% to 100%. This is consistent with Standard 90.1 provisions for cool roofs over conditioned space. A new exception is added for roofs shaded by adjacent structures similar to language used in Standard 90.1. However, the energy efficiency exception is deleted since this section addresses heat island mitigation, not energy efficiency. This addendum also changes the italicized "roof" as defined in Standard 90.1 to uninitialized "roof' because the common term is more applicable to heat island mitigation regardless of whether the space below the roof is conditioned or unconditioned. Stone-ballasted roofs remains as a viable roof system in climate zones 4A and 4B.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

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

180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE/IES Addendum u to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)
This independent substantive change to Addendum u explains the level at which minimum supply fan airflow is to be maintained for multiple-zone units.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 173-202x (i110r3), Dietary Supplements (revision of ANSI/NSF 173-2022)
This standard contains requirements for dietary supplements that contain one or more of the following dietary ingredients: a vitamin, a mineral, an herb or other botanical, an amino acid, a dietary substance for use by humans to supplement the diet by increasing the total dietary intake, or a concentrate, metabolite, constituent, extract, or combinations of these ingredients.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Rachel Brooker <rbrooker@nsf.org>

Comment Deadline: June 23, 2024

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 455-4-202x (i46r1), Good Manufacturing Practices for Over-the-Counter Drugs (revision of ANSI/NSF 455-4-2022)
This standard is intended to define a standardized approach for auditing to determine the level of compliance of over-the-counter (OTC) drug products to 21 CFR Part 210 and 21 CFR Part 211, International Council for Harmonisation of Technical Requirements for Pharmaceutical for Human Use (ICH) Quality Guidelines, 1, 7 and 10, as well as incorporating additional retailer requirements.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Rachel Brooker <rbrooker@nsf.org>

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

Revision

BSR/NSF 455-4-202x (i47r1), Good Manufacturing Practices for Over-the-Counter Drugs (revision of ANSI/NSF 455-4-2022)
This standard is intended to define a standardized approach for auditing to determine the level of compliance of over-the-counter (OTC) drug products to 21 CFR Part 210 and 21 CFR Part 211, International Council for Harmonisation of Technical Requirements for Pharmaceutical for Human Use (ICH) Quality Guidelines, 1, 7 and 10, as well as incorporating additional retailer requirements.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Rachel Brooker <rbrooker@nsf.org>

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

Revision

BSR/NSF/CAN 60-202x (i101r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)
This standard contains health effects requirements for drinking water treatment chemicals that are directly added to water and are intended to be present in the finished water. This standard also contains health effects requirements for other chemical products that are directly added to water but are not intended to be present in the finished water.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Amy Jump <ajump@nsf.org>

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

Revision

BSR/NSF/CAN 60-202x (i102r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)
This standard contains health effects requirements for drinking water treatment chemicals that are directly added to water and are intended to be present in the finished water. This standard also contains health effects requirements for other chemical products that are directly added to water but are not intended to be present in the finished water.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Amy Jump <ajump@nsf.org>

Comment Deadline: June 23, 2024

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

Revision

BSR/NSF/CAN 60-202x (i103r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)
This standard contains health effects requirements for drinking water treatment chemicals that are directly added to water and are intended to be present in the finished water. This standard also contains health effects requirements for other chemical products that are directly added to water but are not intended to be present in the finished water.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Amy Jump <ajump@nsf.org>

ULSE (UL Standards & Engagement)

1603 Orrington Avenue, Suite 2000, Evanston, IL 60201 | mitchell.gold@ul.org, https://ulse.org/

Revision

BSR/UL 486F-202x, Standard for Bare and Covered Ferrules (revision of ANSI/UL 486F-2021)
A recirculation of the following topics based on comments received: (1) The proposed third edition of the Standard for Bare and Covered Ferrules, UL 486F.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions at the following website to enter comments into the CSDS Work Area: https://csds.ul.com/ProposalAvailable

ULSE (UL Standards & Engagement)

47173 Benicia Street, Fremont, CA 94538 | Derrick.L.Martin@ul.org, https://ulse.org/

Revision

BSR/UL 746C-202x, Standard for Safety for Polymeric Materials - Use in Electrical Equipment Evaluations (revision of ANSI/UL 746C-2023)
This proposal involves the removal of Paragraph 57.2.4 from UL 746C.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Derrick Martin; Derrick.L.Martin@ul.org

ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC | akhira.watson@ul.org, https://ulse.org/

Revision

BSR/UL 1699-202x, Standard for Arc-Fault Circuit-Interrupters (revision of ANSI/UL 1699-2022)
A proposed revision to UL 1699, Standard for Arc-Fault Circuit-Interrupters, which includes the following: (1) Addition of requirements for a visual indication of arcing fault interruption.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Send comments (copy psa@ansi.org) to: Follow the instructions at the following website to enter comments into the CSDS Work Area: https://csds.ul.com/ProposalAvailable

Comment Deadline: June 23, 2024

ULSE (UL Standards & Engagement)

1603 Orrington Ave., Suite 2000, Evanston, IL 60201 | anna.roessing-zewe@ul.org, https://ulse.org/

Revision

BSR/UL 2079-202x, Standard for Tests for Fire Resistance of Building Joint Systems (revision of ANSI/UL 2079 -2020)
1.1 These tests are applicable to joint systems of various materials and construction that are intended for use in linear openings between adjacent fire resistive structures. 1.2 The fire endurance ratings for joint systems are intended to register performance during the period of fire exposure and are not intended to be interpreted as having determined the acceptability of the joint systems for use before or after fire exposure. The intent of these methods is to develop data to assist others in determining the suitability of the joint systems where fire resistance is required. 1.3 These requirements are intended to evaluate the length of time that the types of joint systems specified in 1.1 will contain a fire during a predetermined test exposure. The test evaluates the joint system's resistance to heat and, in some instances, to a hose stream, while carrying an applied load if the assembly is load bearing. The method of testing also includes optional air leakage tests to determine the rate of air leakage through joint systems resulting from a specified air pressure difference applied across the surface of the joint systems.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/ProposalAvailable

ULSE (UL Standards & Engagement)

1603 Orrington Ave, Suite 20000, Evanston, IL 60201 | Susan.P.Malohn@ul.org, https://ulse.org/

Revision

BSR/UL 6703-202x, Connectors for Use in Photovoltaic Systems (revision of ANSI/UL 6703-2021)
(1) Addition of assembly procedures for Field Assembled Connector Test samples; (2) Addition of a Cyclic Pull Test.
Click here to view these changes in full
Send comments (copy psa@ansi.org) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: https://csds.ul.com/ProposalAvailable

Comment Deadline: July 8, 2024

AAFS (American Academy of Forensic Sciences)

410 North 21st Street, Colorado Springs, CO 80904 | tambrosius@aafs.org, www.aafs.org

New Standard

BSR/ASB BPR 183-202x, Best Practice Recommendation for Limited Friction Ridge Examinations (new standard)
This document provides best practice recommendations for policies and procedures regarding how to conduct limited examinations of friction ridge impression evidence, and proper documentation for these examinations. Limited exams are partial analyses, comparisons, and/or processing that do not fully utilize the capabilities of a Forensic Service Provider (FSP).
Single copy price: Free
Obtain an electronic copy from: This is a public comment period for a recirculation. Updated document, redline version, and comments can be viewed on the AAFS Standards Board website at: www.aafs.org/academy-standards-board.
Send comments (copy psa@ansi.org) to: asb@aafs.org

Comment Deadline: July 8, 2024

AAFS (American Academy of Forensic Sciences)

410 North 21st Street, Colorado Springs, CO 80904 | tambrosius@aafs.org, www.aafs.org

New Standard

BSR/ASB Std 124-202x, Minimum Requirements and Recommendations for a Firearm and Toolmark Examiner Training Program (new standard)
This standard covers the minimum requirements and recommendations for firearm and toolmark examiner training programs. The requirements include the essential skills and knowledge needed to perform successfully in the discipline. Requirements and recommendations include training topics, documentation, casework exercises, and methods for testing competency of the examiner. This document also provides guidance regarding which training elements may be removed in cases where a trainee is being qualified in only one category of testing. This standard does not preclude agencies from adding additional mission-specific requirements.
Single copy price: Free
Obtain an electronic copy from: Document and comments template can be viewed on the AAFS Standards Board website at: www.aafs.org/academy-standards-board
Send comments (copy psa@ansi.org) to: asb@aafs.org

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

National Adoption

BSR/AAMI/ISO 23500-1-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 1: General requirements (identical national adoption of ISO 23500-1:2024 and revision of ANSI/AAMI/ISO 23500-1-2019)
This document specifies the general requirements for the preparation of fluids for haemodialysis and related therapies and substitution fluid for use in online therapies, such as haemodiafiltration and haemofiltration, for dialysis practitioners. It provides guidance on the user's responsibility for fluids used in haemodialysis and related therapies once the equipment used in its preparation has been delivered and installed. Because water used to prepare dialysis fluid can also be used to reprocess dialysers not marked intended for single use, this aspect of water use is also covered. This document is applicable to - the quality management of equipment used to treat and distribute water used for the preparation of dialysis fluid and substitution fluid, from the point at which municipal water enters the dialysis facility to the point at which the final dialysis fluid enters the dialyser or the point at which substitution fluid is infused, the quality management of the equipment used to prepare acid and bicarbonate concentrate from powdered or other highly concentrated media at a dialysis facility, and the preparation of the final dialysis fluid or substitution fluid from dialysis water and concentrates.
Single copy price: Free
Obtain an electronic copy from: jzajac@aami.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: July 8, 2024

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

National Adoption

BSR/AAMI/ISO 23500-2-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 2: Water treatment equipment for haemodialysis applications and related therapies (identical national adoption of ISO 23500-2:2024 and revision of ANSI/AAMI/ISO 23500-2-2019)
This doucment specifies requirements and recommendations for individual water treatment devices and water treatment systems assembled from one or more of such devices. This document is directed at the individual or company that specifies the complete water treatment system and, the supplier who assembles and installs the system. Since systems can be assembled from a number of individual water treatment
devices, the provisions of this document are also directed at the manufacturers of these devices, provided that the manufacturer indicates that the device is intended to be used to supply water for haemodialysis and related therapies.
Single copy price: Free
Obtain an electronic copy from: jzajac@aami.org
Send comments (copy psa@ansi.org) to: Same

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

National Adoption

BSR/AAMI/ISO 23500-3-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 3:Water for haemodialysis and related therapies (identical national adoption of ISO 23500 -3:2024 and revision of ANSI/AAMI/ISO 23500-3-2019)
This document specifies the minimum chemical and microbiological quality requirements, for water used for preparation of dialysis fluids, concentrates, and for the reprocessing of haemodialysers, together with the necessary steps to ensure conformity with the requirements. It provides guidance for the ongoing monitoring of the purity of such water in terms of chemical and microbiological quality. This document is applicable to - water used in the preparation of dialysis fluids for haemodialysis, haemodiafitraytion and haemofiltration and the reprocessing of haemodialysers - water used in the preparation of concentrates
Single copy price: Free
Obtain an electronic copy from: jzajac@aami.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: July 8, 2024

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

National Adoption

BSR/AAMI/ISO 23500-4-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 4: Concentrates for haemodialysis and related therapies (identical national adoption of ISO 23500-4:2024 and revision of ANSI/AAMI/ISO 23500-4-2019)
This document specifies chemical and microbiological requirements for concentrates used for haemodialysis and related therapies and applies to the manufacturer of such concentrates. This document is applicable to:
- concentrates in both liquid and powder forms;
- additives, also called spikes, which are chemicals that can be added to the concentrate to supplement or increase the concentration of one or more of the existing ions in the concentrate and thus in the final dialysis fluid;
- equipment used to mix acid and bicarbonate powders into concentrate at the user's facility.
Single copy price: Free
Obtain an electronic copy from: jzajac@aami.org
Send comments (copy psa@ansi.org) to: Same

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

National Adoption

BSR/AAMI/ISO 23500-5-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 5: Quality of dialysis fluid for haemodialysis and related therapies (identical national adoption of ISO 23500-5:2024 and revision of ANSI/AAMI/ISO 23500-5-2019)
This document specifies minimum chemical and microbiological quality requirements for dialysis fluids used in haemodialysis and related therapies. This document applies to:
- dialysis fluids used for haemodialysis and haemodiafiltration;
- substitution fluid produced online for haemodiafiltration and haemofiltration based on dialysis fluid.
Single copy price: Free
Obtain an electronic copy from: jzajac@aami.org
Send comments (copy psa@ansi.org) to: Same

ASC X9 (Accredited Standards Committee X9, Incorporated)

275 West Street, Suite 107, Annapolis, MD 21401 | Ambria.Calloway@X9.org, www.x9.org

National Adoption

BSR X9.97-1-202X, Financial services - Secure cryptographic devices (retail) - Part 1: Concepts, requirements and evaluation methods (identical national adoption of ISO 13491-1-2016)
X9.97 specifies the requirements for Secure Cryptographic Devices which incorporate the cryptographic processes defined in ISO 9564, ISO 16609 and ISO 11566. Has two primary purpose:
(1) to state the requirements concerning both the operational characteristics of SCDs and the management of such devices throughout all stages of their life cycle;
(2) to standardize the methodology for verifying compliance with those requirements.
Single copy price: $140.00
Obtain an electronic copy from: ambria.calloway@x9.org
Send comments (copy psa@ansi.org) to: Ambria Calloway <Ambria.Calloway@X9.org>

Comment Deadline: July 8, 2024

ASC X9 (Accredited Standards Committee X9, Incorporated)

275 West Street, Suite 107, Annapolis, MD 21401 | Ambria.Calloway@X9.org, www.x9.org

National Adoption

BSR X9.97-2-202X, Secure cryptographic devices (retail) - Part 2: Secure compliance checklists for devices used in financial transactions (identical national adoption of ISO 13491-2-2023)
This document specifies checklists to be used to evaluate secure cryptographic devices (SCDs) incorporating cryptographic processes as specified in ISO 9564 1, ISO 9564 2, ISO 16609, and ISO 11568 in the financial services environment. Integrated circuit (IC) payment cards are subject to the requirements identified in this document up until the time of issue, after which they are to be regarded as a “personal” device and outside of the scope of this document.
Single copy price: $140.00
Obtain an electronic copy from: ambria.calloway@x9.org
Send comments (copy psa@ansi.org) to: Ambria Calloway <Ambria.Calloway@X9.org>

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

180 Technology Parkway, Peachtree Corners, GA 30092 | cking@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum c to Standard 30-202x, Method of Testing Liquid Chillers (addenda to ANSI/ASHRAE Standard 30-2019)
Addendum c to Standard 30-2019 includes the following major revisions: (1) Adds a definition for heat exchanger allowing reference to capacity measurement in cooling or heating; (2) Redefines heat reclaim and combined heating and cooling metrics to allow capacity and total efficiency calculation including all heat exchangers; (3) Adds definitions for various operating modes such as any hybrid mode that makes use of simultaneous cooling and heating, and any hybrid mode that makes use of passive operation, provided that all system components are included as part of the liquid-chilling system to be tested. Such components may include air-to-liquid, refrigerant-to-liquid, refrigerant-to-air, or liquid-to-liquid heat exchangers.
Single copy price: $35.00
Obtain an electronic copy from: http://www.ashrae.org/standards-research--technology/public-review-drafts
Send comments (copy psa@ansi.org) to: http://www.ashrae.org/standards-research--technology/public-review-drafts

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

180 Technology Parkway, Peachtree Corners, GA 30092 | cking@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE Addendum l to Standard 209-202x, Energy Simulation Aided Design for Buildings except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE Standard 209-2018)
This addendum adds a new Informative Appendix L that seeks to provide guidance for evaluating the impact of climate change on building energy consumption and building system design. Changes are proposed to existing Appendix A to avoid overlap between Appendix A and the proposed Appendix L.
Single copy price: $35.00
Obtain an electronic copy from: http://www.ashrae.org/standards-research--technology/public-review-drafts
Send comments (copy psa@ansi.org) to: http://www.ashrae.org/standards-research--technology/public-review-drafts

Comment Deadline: July 8, 2024

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180 Technology Parkway, Peachtree Corners, GA 30092 | etoto@ashrae.org, www.ashrae.org

Addenda

BSR/ASHRAE/IES Addendum ad to ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2022)
This addendum provides one overarching term for those responsible for administering the standard: authority having jurisdiction. The new term includes code officials and building officials, which are no longer separately defined.
Single copy price: $35.00
Obtain an electronic copy from: standards.section@ashrae.org
Send comments (copy psa@ansi.org) to: https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Revision

BSR/ASME PASE-202x, Safety Standard for Portable Automotive Service Equipment (revision of ANSI/ASME PASE -2019)
The scope of this Standard is the standardization of safety and performance requirements for portable automotive service equipment (PASE). This Standard includes requirements for safety, health, design, production, construction, maintenance, performance, or operation of electrical, mechanical, hydraulic, or pneumatically powered equipment, and qualification of personnel.
Single copy price: Free
Obtain an electronic copy from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Nicole Gomez <gomezn@asme.org>

ASSP (Safety) (American Society of Safety Professionals)

520 N. Northwest Highway, Park Ridge, IL 60068 | rblanchette@assp.org, www.assp.org

Revision

BSR/ASSP Z244.1-202x, The Control of Hazardous Energy - Lockout, Tagout and Alternative Methods (revision of ANSI/ASSP Z244.1-2016 (R2020))
This standard covers machines, equipment, and processes in which the unexpected energization or start-up of the machines or equipment, release of stored energy or the actions of persons could result in harm. This standard establishes requirements for the control of hazardous energy associated with machines, equipment or processes that could cause harm to personnel. The standard specifies the use of lockout (primary method), tagout or alternative methods to control hazardous energy associated with machines, equipment or processes that could cause harm to personnel. This standard applies to activities such as erecting, installing, constructing, repairing, adjusting, inspecting, unjamming, set up, testing, troubleshooting, cleaning, dismantling, servicing and maintaining machines, equipment or processes.
Single copy price: $125.00
Obtain an electronic copy from: rblanchette@assp.org
Send comments (copy psa@ansi.org) to: Same

Comment Deadline: July 8, 2024

ASSP (Safety) (American Society of Safety Professionals)

520 N. Northwest Highway, Park Ridge, IL 60068 | rblanchette@assp.org, www.assp.org

Revision

BSR/ASSP Z490.1-202x, Criteria for Accepted Practices in Safety, Health and Environmental Training (revision and redesignation of ANSI/ASSE Z490.1-2016)
This standard establishes criteria for safety, health and environmental training programs, including program management, development, delivery, evaluation, and documentation. The purpose of this standard is to provide criteria for accepted practices for safety, health, and environmental training programs including development, delivery, evaluation, and program management.
Single copy price: $150.00
Obtain an electronic copy from: rblanchette@assp.org
Send comments (copy psa@ansi.org) to: Same

AWWA (American Water Works Association)

6666 W. Quincy Avenue, Denver, CO 80235 | mrohr@awwa.org, www.awwa.org

Revision

BSR/AWWA C502-202x, Dry-Barrel Fire Hydrants (revision of ANSI/AWWA C502-2018)
This standard describes post-type, dry-barrel fire hydrants with compression shutoff (opening against or with the pressure), or gate shutoff for use in fire protection service in all climates, including those where freezing occurs.
Single copy price: Free
Obtain an electronic copy from: ETSsupport@awwa.org
Send comments (copy psa@ansi.org) to: AWWA, Paul J. Olson (polson@awwa.org)

HI (Hydraulic Institute)

300 Interpace Parkway, Building A, 3rd Floor, #280, Parsippany, NJ 07054 | amoser@pumps.org, www.pumps.org

Revision

BSR/HI 14.3-202x, Rotodynamic Pumps for Design and Application (revision of ANSI/HI 14.3-2019)
The purpose of this standard is to provide guidance and recommendations for the general application and design of rotodynamic pumps. This standard provides accepted methods for the evaluation of the hydraulic performance and design of related and supporting equipment. It does not include detailed hydraulic design methods. This standard recognizes and identifies application requirements, principal features, performance considerations, and the necessary precautions for the proper use of rotodynamic pumps.
Single copy price: $260.00
Obtain an electronic copy from: amoser@pumps.org
Send comments (copy psa@ansi.org) to: Alexander Moser <amoser@pumps.org>

Comment Deadline: July 8, 2024

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

Revision

BSR/NSF/CAN 600-202x (i11r1), Health Effects Evaluation and Criteria for Chemicals in Drinking Water (revision of ANSI/NSF/CAN 600-2023)
The standard defines the toxicological review and evaluation procedures for the evaluation of substances imparted to drinking water through contact with drinking water system components (and drinking water additives). It is intended to establish the human health risk, if any, of the substances imparted to drinking water under the anticipated use conditions of the product. Table 4.1 of this Standard contains evaluation criteria that have been determined according to the requirements of this Standard.
Single copy price: Free
Obtain an electronic copy from: https://standards.nsf.org/higherlogic/ws/public/download/74999/600i11r1%20-%20Table%204.1%20HAs%20-%20JC%20memo%20%26%20ballot.pdf
Send comments (copy psa@ansi.org) to: Amy Jump <ajump@nsf.org>

PHTA (Pool and Hot Tub Alliance)

2111 Eisenhower Avenue, Suite 500, Alexandria, VA 22314 | standards@phta.org, www.PHTA.org

Revision

BSR/PHTA/ICC-4-202x, Standard for Aboveground/Onground Residential Swimming Pools (revision and redesignation of ANSI/APSP/ICC-4 2012 (R2022))
This standard describes certain criteria for the design, manufacturing, testing, care, and use of aboveground/onground residential (Type-O) non-diving swimming pools and their components. Aboveground/onground residential (Type-O) non-diving swimming pools are defined as pools with a shallow area water depth of 36 in. (914 mm) minimum at the wall and a water depth of 48 in. maximum (1219 mm) at the wall. This includes portable pools with flexible/non-rigid or rigid side walls which achieve their structural integrity by means of uniform shape, support frame or a combination thereof, and can be disassembled for storage or relocation.
Single copy price: Free
Obtain an electronic copy from: https://www.phta.org/standards-and-codes/phta-standards/submit-public-review-comment/
Send comments (copy psa@ansi.org) to: https://www.phta.org/standards-and-codes/phta-standards/submit-public-review-comment/

ULSE (UL Standards & Engagement)

47173 Benicia Street, Fremont, CA 94538 | Linda.L.Phinney@ul.org, https://ulse.org/

Reaffirmation

BSR/UL 2592-2015 (R202x), Standard for Safety for Low Voltage LED Wire (reaffirmation of ANSI/UL 2592 -2015)
Reaffirmation and continuance of the First Edition of the Standard for Standard for Low Voltage LED Wire, UL 2592, as an standard.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/ProposalAvailable
Send comments (copy psa@ansi.org) to: https://csds.ul.com/ProposalAvailable

Comment Deadline: July 8, 2024

ULSE (UL Standards & Engagement)

1603 Orrington Ave, Suite 2000, Evanston, IL 60201 | roger.pareja@ul.org, https://ulse.org/

Revision

BSR/UL 857-202x, Standard for Busways (revision of ANSI/UL 857-2021)
This purpose of this revision is to revise the 13th edition of UL 857 and propose the 14th edition as an standard.
Single copy price: Free
Obtain an electronic copy from: https://csds.ul.com/Home/ProposalsDefault.aspx
Send comments (copy psa@ansi.org) to: Roger Pareja <roger.pareja@ul.org>

Comment Deadline: July 23, 2024

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

Revision

BSR/ASME A112.19.2-202x/CSA B45.1, Ceramic Plumbing Fixtures (revision of ANSI/ASME A112.19.2/CSA B45.1-2018)
This Standard covers vitreous and non-vitreous china plumbing fixtures and specifies requirements for materials, construction, performance, testing, and markings. This Standard's performance requirements and test procedures apply to all types of water closets and urinals that discharge into gravity drainage systems in permanent buildings and structures, independent of occupancy.
Single copy price: Free
Order from: https://cstools.asme.org/csconnect/PublicReviewPage.cfm
Send comments (copy psa@ansi.org) to: Justin Cassamassino <cassasmassinoj@asme.org>

ULSE (UL Standards & Engagement)

1603 Orrington Ave, Suite 2000, Evanston, IL 60201 | megan.monsen@ul.org, https://ulse.org/

New Standard

BSR/UL 2278-202x, The Standard for Safety for Megawatt Charging Configured Electric Vehicle Couplers (new standard)
These requirements cover vehicle connectors and vehicle inlets designated as, and configured as, megawatt charging couplers. These devices are rated up to 1500 Vdc, 3000 A under conditions of continuous use. Vehicle connectors may be actively cooled, such as with liquid cooling, when operating. These devices are intended for use with conductive DC charging equipment for electric vehicles and intended to facilitate conductive connection from the charging equipment to the vehicle. These devices are for use in either indoor or outdoor, non-classified locations in accordance with National Electrical Code (NEC), NFPA 70, and the Canadian Electrical Code (CE Code), CSA C22.1. This standard does not apply to any device that is not intended for use as described in 1.1. This standard does not cover devices used for conductive connection to an electric vehicle and consisting of configurations other than megawatt charging systems configurations. Those devices are covered by the Standard for Plugs, Receptacles and Couplers for Electric Vehicles, UL 2251, or CSA C22.2 No. 282. This standard is intended to be used in conjunction with the Standard for Plugs, Receptacles and Couplers for Electric Vehicles, UL 2251, or CSA C22.2 No. 282 and will indicate where requirements are different.
Single copy price: Free
Order from: https://www.shopulstandards.com/
Send comments (copy psa@ansi.org) to: Follow the instructions at the following website to enter comments into the CSDS Work Area: https://csds.ul.com/ProposalAvailable

Technical Reports Registered with ANSI

Withdrawal of a Technical Report that is registered with ANSI is determined by the responsible ANSI-Accredited Standards Developer. The following Technical Reports are hereby withdrawn in accordance with the Developers own procedures.

ASA (ASC S12) (Acoustical Society of America)

1305 Walt Whitman Road, Suite 110, Melville, NY 11747 | standards@acousticalsociety.org, www.acousticalsociety.org

ASA TR S12.9-2019/Part 6, ASA Technical Report Rationale for Withdrawing ANSI/ASA S12.9-2008 (Part 6) (withdraw technical report)
This ASA Technical Report provides the rationale for the recommendation by Working Group S12/WG15 to withdraw the 2008 ANSI/ASA Standard "Quantities and Procedures for Description and Measurement of Environmental Sound — Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes."
Send comments (copy psa@ansi.org) to: Neil Stremmel, asastds@acousticalsociety.org

Project Withdrawn

In accordance with clause 4.2.1.3.3 Discontinuance of a standards project of the ANSI Essential Requirements, an accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

BSR/ASTM WK86477-202x, New Test Method for Womens Lacrosse Stick Pocket Performance (new standard)
Send comments (copy psa@ansi.org) to: Laura Klineburger <accreditation@astm.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.

AGMA (American Gear Manufacturers Association)

1001 N. Fairfax Street, Suite 500, Alexandria, VA 22314 | praneis@agma.org, www.agma.org

ANSI/AGMA 6015-A13 (R2024), Power Rating of Single and Double Helical Gearing for Rolling Mill Service (reaffirmation of ANSI/AGMA 6015-A13 (R2018)) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/AGMA 6032-B13 (R2024), Standard for Marine Gear Units: Rating and Application for Spur and Helical Gear Teeth (reaffirmation of ANSI/AGMA 6032-B13 (R2018)) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/AGMA 6115-A13 (R2024), Power Rating of Single and Double Helical Gearing for Rolling Mill Service (Metric Edition) (reaffirmation of ANSI/AGMA 6115-A13 (R2018)) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/AGMA 6132-B13 (R2024), Standard for Marine Gear Units: Rating and Application for Spur and Helical Gear Teeth (Metric Edition) (reaffirmation of ANSI/AGMA 6132-B13 (R2018)) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/AGMA 9001-C18 (R2024), Flexible Couplings - Lubrication (reaffirmation of ANSI/AGMA 9001-C18) Final Action Date: 5/20/2024 | *Reaffirmation*

ASC X9 (Accredited Standards Committee X9, Incorporated)

275 West Street, Suite 107, Annapolis, MD 21401 | Ambria.Calloway@X9.org, www.x9.org

ANSI X9.125-2024, Cloud Management and Security (new standard) Final Action Date: 5/16/2024 | *New Standard*

ASTM (ASTM International)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 | accreditation@astm.org, www.astm.org

ANSI/ASTM F2389-2024, Specification for Pressure-rated Polypropylene (PP) Piping Systems (revision of ANSI/ASTM F2389-2023) Final Action Date: 5/15/2024 | *Revision*

AWS (American Welding Society)

8669 NW 36th Street, Suite 130, Miami, FL 33166-6672 | kbulger@aws.org, www.aws.org

ANSI/AWS A5.13/A5.13M-2024, Specification for Surfacing Electrodes for Shielded Metal Arc Welding (revision of ANSI/AWS A5.13/A5.13M-2021) Final Action Date: 5/14/2024 | *Revision*

BICSI (Building Industry Consulting Service International)

8610 Hidden River Parkway, Tampa, FL 33637 | jsilveira@bicsi.org, www.bicsi.org

ANSI/BICSI 009-2024, Data Center Operations and Maintenance Best Practices (new standard) Final Action Date: 5/15/2024 | *New Standard*

BIFMA (Business and Institutional Furniture Manufacturers Association)

678 Front Avenue NW, Suite 150, Grand Rapids, MI 49504 | skooy@bifma.org, www.bifma.org

ANSI/BIFMA X10.1-2024, Ergonomics Requirements for Furniture Designed for Computer Use (new standard) Final Action Date: 5/13/2024 | *New Standard*

IES (Illuminating Engineering Society)

85 Broad Street, 17th Floor, New York, NY 10004 | pmcgillicuddy@ies.org, www.ies.org

ANSI/IES TM-40-24, Technical Memorandum: IES Method for Determining Correlated Color Temperature (CCT) and Distance from the Planckian Locus of Light Sources (new standard) Final Action Date: 5/20/2024 | *New Standard*

ISA (International Society of Automation)

3252 S. Miami Blvd, Suite 102, Durham, NC 27703 | crobinson@isa.org, www.isa.org

ANSI/ISA 96.02.01-2024, Guidelines for the Specification of Electric Valve Actuators (revision of ANSI/ISA 96.02.01 -2016) Final Action Date: 5/15/2024 | *Revision*

NEMA (ASC C50) (National Electrical Manufacturers Association)

1300 North 17th Street, Suite 900, Rosslyn, VA 22209 | David.Richmond@nema.org, www.nema.org

ANSI NEMA 61800-1-2024, Adjustable Speed Drives Electrical Power Drive Systems - Part 1: General Requirements - Rating Specifications for Low Voltage Adjustable Speed DC Power Drive Systems (identical national adoption of IEC 61800-1:2021) Final Action Date: 5/14/2024 | *National Adoption*

NEMA (ASC C8) (National Electrical Manufacturers Association)

1300 North 17th Street, Suite 900, Arlington, VA 22209 | Khaled.Masri@nema.org, www.nema.org

ANSI/ICEA P-54-440-2009/NEMA WC-51-2009 (R2024), Ampacities of Cables Installed in Trays (reaffirmation of ANSI/ICEA P-54-440-2009/NEMA WC-51-2009 (R2019)) Final Action Date: 5/20/2024 | *Reaffirmation*

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

ANSI/NSF 455-2-2024 (i63r1), Good Manufacturing Practices for Dietary Supplements (revision of ANSI/NSF 455-2 -2022) Final Action Date: 5/16/2024 | *Revision*

PLASTICS (Plastics Industry Association)

1425 K Street, NW, Suite 500, Washington, DC 20005 | jlinder@plasticsindustry.org, www.plasticsindustry.org

ANSI/PLASTICS B151.32-2024, Safety Requirements for Flat Cast Film and Cast Embossed Film Extrusion Machines (new standard) Final Action Date: 5/20/2024 | *New Standard*

SCTE (Society of Cable Telecommunications Engineers)

140 Philips Road, Exton, PA 19341-1318 | naden@scte.org, www.scte.org

ANSI/SCTE 16-2018 (R2024), Test Procedure for Hum Modulation (reaffirmation of ANSI/SCTE 16-2018) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/SCTE 29-2018 (R2024), Torque Requirements for Bond Wire Penetration of Bonding Set Screw (reaffirmation of ANSI/SCTE 29-2018) Final Action Date: 5/20/2024 | *Reaffirmation*

ANSI/SCTE 191-2018 (R2024), Test Method for Axial Pull Force, Female F Port (reaffirmation of ANSI/SCTE 191-2018) Final Action Date: 5/20/2024 | *Reaffirmation*

TIA (Telecommunications Industry Association)

1320 North Courthouse Road, Suite 200, Arlington, VA 22201-2598 | tjenkins@tiaonline.org, www.tiaonline.org

ANSI/TIA 492AAAF-A-2024, Detail Specification for Class 1a Graded-Index Multimode Optical Fibers; Modification of IEC 60793-2-10, Optical Fibres - Part 2-10: Product Specifications - Sectional Specification for Category A1 Multimode Fibres (national adoption of IEC 60793-2-10 Edition 7.1 with modifications and revision of ANSI/TIA 492AAAF-2020) Final Action Date: 5/14/2024 | *National Adoption*

ANSI/TIA 570-E-2024, Residential Telecommunications Infrastructure Standard (revision and redesignation of ANSI/TIA 570-D-2018) Final Action Date: 5/14/2024 | *Revision*

ANSI/TIA 607-E-2024, Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises (revision and redesignation of ANSI/TIA 607-D-2019, ANSI/TIA 607-D-1-2021) Final Action Date: 5/14/2024 | *Revision*

ULSE (UL Standards & Engagement)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 | haley.callahan@ul.org, https://ulse.org/

ANSI/UL 3300-2024, Standard for Safety for Service, Communication, Information, Education and Entertainment Robots - SCIEE Robots (new standard) Final Action Date: 5/14/2024 | *New Standard*

ANSI/UL 60745-2-20-2009 (R2024), Hand-Held Motor-Operated Electric Tools - Safety - Part 2-20: Particular Requirements for Band Saws (reaffirmation of ANSI/UL 60745-2-20-2009) Final Action Date: 5/17/2024 | *Reaffirmation*

ANSI/UL 1993-2024, Standard for Safety for Self-Ballasted Lamps and Lamp Adapters (revision of ANSI/UL 1993-2021) Final Action Date: 5/17/2024 | *Revision*

ANSI/UL 8752-2024, Standard for Safety for Organic Light Emitting Diode (OLED) Panels (revision of ANSI/UL 8752 -2012 (R2018)) Final Action Date: 5/16/2024 | *Revision*

ANSI/UL 8753-2024, Standard for Safety for Field-Replaceable Light Emitting Diode (LED) Light Engines (revision of ANSI/UL 8753-2013 (R2018)) Final Action Date: 5/16/2024 | *Revision*

ANSI/UL 8754-2024, Standard for Safety for Holders, Bases, and Connectors for Solid-State (LED) Light Engines and Arrays (revision of ANSI/UL 8754-2014 (R2018)) Final Action Date: 5/16/2024 | *Revision*

Call for Members (ANS Consensus Bodies)

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

ANSI Accredited Standards Developer

INCITS Executive Board – ANSI Accredited SDO and US TAG to ISO/IEC JTC 1, Information Technology

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

The INCITS Executive Board serves as the consensus body with oversight of its 40+ Technical Committees. Additionally, the INCITS Executive Board has the international leadership role as the US Technical Advisory Group (TAG) to ISO/IEC JTC 1, Information Technology.

Membership in the INCITS Executive Board is open to all directly and materially interested parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at jgarner@itic.org or visit http://www.incits.org/participation/membership-info for more information.
Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following underrepresented categories:

- Producer-Software
- Producer-Hardware
- Distributor
- Service Provider
- Users
- Consultants
- Government
- SDO and Consortia Groups
- Academia
- General Interest

ANSI Accredited Standards Developer

SCTE (Society of Cable Telecommunications Engineers)

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.

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 8637-1-202x, Extracorporeal systems for blood purification - Part 1: Haemodialysers, haemodiafilters, haemofilters and haemoconcentrators (identical national adoption of ISO 8637-1:2024 and revision of ANSI/AAMI/ISO 8637-1-2017)
Interest Categories: AAMI RD, Renal Disease and Detoxification Committee is seeking user, and general interest/regulator members to participate in adoption of the ISO 8637-1:2024,8637-2:2024 and 8637-3:2024; Contact: Jill Zajac JZajac@aami.org

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 8637-2-202x, Extracorporeal systems for blood purification - Part 2: Extracorporeal blood and fluid circuits for haemodialysers, haemodiafilters, haemofilters and haemoconcentrators (identical national adoption of ISO 8637-2:2024 and revision of ANSI/AAMI/ISO 8637-2-2018)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 8637-3-202x, Extracorporeal systems for blood purification - Part 3: Plasmafilters (identical national adoption of ISO 8637-3:2024 and revision of ANSI/AAMI/ISO 8637-3-2018)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 23500-1-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 1: General requirements (identical national adoption of ISO 23500-1:2024 and revision of ANSI/AAMI/ISO 23500-1-2019)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 23500-2-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 2: Water treatment equipment for haemodialysis applications and related therapies (identical national adoption of ISO 23500-2:2024 and revision of ANSI/AAMI/ISO 23500-2-2019)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 23500-3-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 3:Water for haemodialysis and related therapies (identical national adoption of ISO 23500-3:2024 and revision of ANSI/AAMI/ISO 23500-3-2019)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 23500-4-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 4: Concentrates for haemodialysis and related therapies (identical national adoption of ISO 23500 -4:2024 and revision of ANSI/AAMI/ISO 23500-4-2019)

AAMI (Association for the Advancement of Medical Instrumentation)

901 N. Glebe Road, Suite 300, Arlington, VA 22203 | jzajac@aami.org, www.aami.org

BSR/AAMI/ISO 23500-5-202x, Preparation and quality management of fluids for haemodialysis and related therapies - Part 5: Quality of dialysis fluid for haemodialysis and related therapies (identical national adoption of ISO 23500-5:2024 and revision of ANSI/AAMI/ISO 23500-5-2019)

ARESCA (American Renewable Energy Standards and Certification Association)

256 Farrell Farm Road, Norwich, VT 05055 | secretary@aresca.us, www.aresca.us

BSR/ARESCA 61400-9-202x, Wind energy generation systems - Part 9: Probabilistic design measures for wind turbines (identical national adoption of IEC TS 61400-9:2024)

ARESCA (American Renewable Energy Standards and Certification Association)

256 Farrell Farm Road, Norwich, VT 05055 | secretary@aresca.us, www.aresca.us

BSR/ARESCA 61400-60-202x, Wind energy generation systems - Part 60: Validation of computational models (identical national adoption of IEC PAS 61400-60:2024)

ARESCA (American Renewable Energy Standards and Certification Association)

256 Farrell Farm Road, Norwich, VT 05055 | secretary@aresca.us, www.aresca.us

BSR/ARESCA 61400-11-2-202x, Wind energy generation systems - Part 11-2: Measurement of wind turbine noise characteristics in receptor position (identical national adoption of IEC TS 61400-11-2:2024)

ARESCA (American Renewable Energy Standards and Certification Association)

256 Farrell Farm Road, Norwich, VT 05055 | secretary@aresca.us, www.aresca.us

BSR/ARESCA 61400-24.1-202x, Amendment 1 - Wind energy generation systems - Part 24: Lightning protection (identical national adoption of IEC 61400-24 AMD1:2024)

ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 | ansibox@asme.org, www.asme.org

BSR/ASME PASE-202x, Safety Standard for Portable Automotive Service Equipment (revision of ANSI/ASME PASE -2019)

AWPA (ASC O5) (American Wood Protection Association)

2430 US Highway 27 STE #330-223, Clermont, FL 34714 | email@awpa.com, www.awpa.com

BSR O5.2-202X, Structural Glued Laminated Timber for Utility Structures (revision of ANSI O5.2-2020)

HI (Hydraulic Institute)

300 Interpace Parkway, Building A, 3rd Floor, #280, Parsippany, NJ 07054 | amoser@pumps.org, www.pumps.org

BSR/HI 14.3-202x, Rotodynamic Pumps for Design and Application (revision of ANSI/HI 14.3-2019)

MHI (Material Handling Industry)

8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 | pdavison@mhi.org, www.mhi.org

BSR MH31.3-202X, Test Method for Topple Barrier Static Load and Creep (new standard)

NECA (National Electrical Contractors Association)

1201 Pennsylvania Avenue, Suite 1200, Washington, DC 20004 | Jeff.Noren@NECAnet.org, www.neca-neis.org

BSR/NECA 121-202X, Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground Feeder and Branch-Circuit Cable (Type UF) (new standard)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 173-202x (i110r3), Dietary Supplements (revision of ANSI/NSF 173-2022)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 455-4-202x (i46r1), Good Manufacturing Practices for Over-the-Counter Drugs (revision of ANSI/NSF 455 -4-2022)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | rbrooker@nsf.org, www.nsf.org

BSR/NSF 455-4-202x (i47r1), Good Manufacturing Practices for Over-the-Counter Drugs (revision of ANSI/NSF 455 -4-2022)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

BSR/NSF/CAN 60-202x (i101r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

BSR/NSF/CAN 60-202x (i102r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

BSR/NSF/CAN 60-202x (i103r1), Drinking Water Treatment Chemicals - Health Effects (revision of ANSI/NSF/CAN 60-2021)

NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 | ajump@nsf.org, www.nsf.org

BSR/NSF/CAN 600-202x (i11r1), Health Effects Evaluation and Criteria for Chemicals in Drinking Water (revision of ANSI/NSF/CAN 600-2023)

ULSE (UL Standards & Engagement)

1603 Orrington Ave, Suite 2000, Evanston, IL 60201 | megan.monsen@ul.org, https://ulse.org/

BSR/UL 2278-202x, The Standard for Safety for Megawatt Charging Configured Electric Vehicle Couplers (new standard)

ULSE (UL Standards & Engagement)

1603 Orrington Ave, Suite 2000, Evanston, IL 60201 | megan.monsen@ul.org, https://ulse.org/

BSR/UL 3202-202x, Standard for Safety for Mobile Electric Vehicle Charging Systems Integrated with Energy Storage Systems (new standard)

American National Standards (ANS) Announcements

Corrections

AAFS - American Academy of Forensic Sciences

BSR/ASB Std 040-202x

The 5/17/2024, PINS notice mistakenly referenced incorrect information. This public review notice should have been described as:
BSR/ASB Std 040-202x, Standard for Forensic DNA Interpretations and Comparison Protocols
(revision of ANSI/ASB Std 040-2019)
Please direct inquiries to: Teresa Ambrosius <tambrosius@aafs.org>

Corrections

ULSE - UL Standards & Engagement

UL 3030

The final action for UL 3030, Standard for Unmanned Aircraft Systems (reaffirmation of ANSI/UL 3030-2018) which was published in the 4/26/24 issue of Standards Action has been rescinded at the request of the developer. This will be submitted at a later date for approval.

Please direct inquiries to: Patricia Sena <Patricia.A.Sena@ul.org

American National Standards (ANS) Process

Please visit ANSI's website (www.ansi.org) for resources that will help you to understand, administer and participate in the American National Standards (ANS) process. Documents posted at these links are updated periodically as new documents and guidance are developed, whenever ANS-related procedures are revised, and routinely with respect to lists of proposed and approved ANS. The main ANS-related linkis www.ansi.org/asd and here are some direct links as well as highlights of information that is available:

Where to find Procedures, Guidance, Interpretations and More…

Please visit ANSI's website (www.ansi.org)

• ANSI Essential Requirements: Due process requirements for American National Standards (always current edition):

www.ansi.org/essentialrequirements

• ANSI Standards Action (weekly public review announcements of proposed ANS and standards developer accreditation applications, listing of recently approved ANS, and proposed revisions to ANS-related procedures):

www.ansi.org/standardsaction

• Accreditation information – for potential developers of American National Standards (ANS):

www.ansi.org/sdoaccreditation

• ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form):

www.ansi.org/asd

• Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS:

www.ansi.org/asd

• American National Standards Key Steps:

www.ansi.org/anskeysteps

• American National Standards Value:

www.ansi.org/ansvalue

• ANS Web Forms for ANSI-Accredited Standards Developers:

https://www.ansi.org/portal/psawebforms/

• Information about standards Incorporated by Reference (IBR):

https://ibr.ansi.org/

• ANSI - Education and Training:

www.standardslearn.org

American National Standards Under Continuous Maintenance

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

The standard shall be maintained by an accredited standards developer. A documented program for periodic publication of revisions shall be established by the standards developer. Processing of these revisions shall be in accordance with these procedures. The published standard shall include a clear statement of the intent to consider requests for change and information on the submittal of such requests. Procedures shall be established for timely, documented consensus action on each request for change and no portion of the standard shall be excluded from the revision process. In the event that no revisions are issued for a period of four years, action to reaffirm or withdraw the standard shall be taken in accordance with the procedures contained in the ANSI Essential Requirements. The Executive Standards Council (ExSC) has determined that for standards maintained under the Continuous Maintenance option, separate PINS announcements are not required. The following ANSI Accredited Standards Developers have formally registered standards under the Continuous Maintenance option.

AAMI (Association for the Advancement of Medical Instrumentation)

AARST (American Association of Radon Scientists and Technologists)

AGA (American Gas Association)

AGSC (Auto Glass Safety Council)

ASC X9 (Accredited Standards Committee X9, Incorporated)

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

ASME (American Society of Mechanical Engineers)

ASTM (ASTM International)

GBI (Green Building Initiative)

HL7 (Health Level Seven)

Home Innovation (Home Innovation Research Labs)

IES (Illuminating Engineering Society)

ITI (InterNational Committee for Information Technology Standards)

MHI (Material Handling Industry)

NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)

NCPDP (National Council for Prescription Drug Programs)

NEMA (National Electrical Manufacturers Association)

NFRC (National Fenestration Rating Council)

NISO (National Information Standards Organization)

NSF (NSF International)

PRCA (Professional Ropes Course Association)

RESNET (Residential Energy Services Network, Inc.)

SAE (SAE International)

TCNA (Tile Council of North America)

TIA (Telecommunications Industry Association)

TMA (The Monitoring Association)

ULSE (UL Standards & Engagement)

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 “American National Standards Maintained Under Continuous Maintenance.” Questions? psa@ansi.org.

ANSI-Accredited Standards Developers (ASD) Contacts

The addresses listed in this section are to be used in conjunction with standards listed in PINS, Call for Comment, Call for Members 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 the PSA Department at psa@ansi.org.

AAFS
American Academy of Forensic Sciences
410 North 21st Street
Colorado Springs, CO 80904
www.aafs.org

Teresa Ambrosius
tambrosius@aafs.org

AAMI
Association for the Advancement of Medical Instrumentation
901 N. Glebe Road, Suite 300
Arlington, VA 22203
www.aami.org

Jill Zajac
jzajac@aami.org

AGMA
American Gear Manufacturers Association
1001 N. Fairfax Street, Suite 500
Alexandria, VA 22314
www.agma.org

Todd Praneis
praneis@agma.org

ARESCA
American Renewable Energy Standards and Certification Association
256 Farrell Farm Road
Norwich, VT 05055
www.aresca.us

George Kelly
secretary@aresca.us

ASC X9
Accredited Standards Committee X9, Incorporated
275 West Street, Suite 107
Annapolis, MD 21401
www.x9.org

Ambria Calloway
Ambria.Calloway@X9.org

ASHRAE
American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
180 Technology Parkway
Peachtree Corners, GA 30092
www.ashrae.org

Carmen King
cking@ashrae.org

Emily Toto
etoto@ashrae.org

Kai Nguyen
knguyen@ashrae.org

Thomas Loxley
tloxley@ashrae.org

ASME
American Society of Mechanical Engineers
Two Park Avenue, M/S 6-2B
New York, NY 10016
www.asme.org

Terrell Henry
ansibox@asme.org

ASSP (Safety)
American Society of Safety Professionals
520 N. Northwest Highway
Park Ridge, IL 60068
www.assp.org

Rick Blanchette
rblanchette@assp.org

ASTM
ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428
www.astm.org

Laura Klineburger
accreditation@astm.org

AWPA (ASC O5)
American Wood Protection Association
2430 US Highway 27 STE #330-223
Clermont, FL 34714
www.awpa.com

Nicole Butler
email@awpa.com

AWS
American Welding Society
8669 NW 36th Street, Suite 130
Miami, FL 33166
www.aws.org

Kevin Bulger
kbulger@aws.org

AWWA
American Water Works Association
6666 W. Quincy Avenue
Denver, CO 80235
www.awwa.org

Madeline Rohr
mrohr@awwa.org

Paul Olson
polson@awwa.org

BICSI
Building Industry Consulting Service International
8610 Hidden River Parkway
Tampa, FL 33637
www.bicsi.org

Jeff Silveira
jsilveira@bicsi.org

BIFMA
Business and Institutional Furniture Manufacturers Association
678 Front Avenue NW, Suite 150
Grand Rapids, MI 49504
www.bifma.org

Steven Kooy
skooy@bifma.org

HI
Hydraulic Institute
300 Interpace Parkway, Building A, 3rd Floor, #280
Parsippany, NJ 07054
www.pumps.org

Alexander Moser
amoser@pumps.org

IES
Illuminating Engineering Society
85 Broad Street, 17th Floor
New York, NY 10004
www.ies.org

Patricia McGillicuddy
pmcgillicuddy@ies.org

ISA (Organization)
International Society of Automation
3252 S. Miami Blvd, Suite 102
Durham, NC 27703
www.isa.org

Charley Robinson
crobinson@isa.org

MHI
Material Handling Industry
8720 Red Oak Boulevard, Suite 201
Charlotte, NC 28217
www.mhi.org

Patrick Davison
pdavison@mhi.org

NECA
National Electrical Contractors Association
1201 Pennsylvania Avenue, Suite 1200
Washington, DC 20004
www.neca-neis.org

Jeff Noren
Jeff.Noren@NECAnet.org

NEMA (ASC C12)
National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, VA 22209
www.nema.org

Paul Orr
Pau_orr@nema.org

NEMA (ASC C50)
National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Rosslyn, VA 22209
www.nema.org

David Richmond
David.Richmond@nema.org

NEMA (ASC C8)
National Electrical Manufacturers Association
1300 North 17th Street, Suite 900
Arlington, VA 22209
www.nema.org

Khaled Masri
Khaled.Masri@nema.org

NSF
NSF International
789 N. Dixboro Road
Ann Arbor, MI 48105
www.nsf.org

Amy Jump
ajump@nsf.org

Rachel Brooker
rbrooker@nsf.org

PHTA
Pool and Hot Tub Alliance
2111 Eisenhower Avenue, Suite 500
Alexandria, VA 22314
www.PHTA.org

Genevieve Lynn
standards@phta.org

PLASTICS
Plastics Industry Association
1425 K Street, NW, Suite 500
Washington, DC 20005
www.plasticsindustry.org

Jeff Linder
jlinder@plasticsindustry.org

SCTE
Society of Cable Telecommunications Engineers
140 Philips Road
Exton, PA 19341
www.scte.org

Natasha Aden
naden@scte.org

TIA
Telecommunications Industry Association
1320 North Courthouse Road, Suite 200
Arlington, VA 22201
www.tiaonline.org

Teesha Jenkins
tjenkins@tiaonline.org

ULSE
UL Standards & Engagement
100 Queen Street, Suite 1040
Ottawa, Canada, ON https://ulse.org/

Jacob Stewart
Jacob.Stewart@ul.org

ULSE
UL Standards & Engagement
12 Laboratory Drive
Research Triangle Park, NC 27709
https://ulse.org/

Anne Marie Jacobs
annemarie.jacobs@ul.org

Haley Callahan
haley.callahan@ul.org

Julio Morales
Julio.Morales@UL.org

ULSE
UL Standards & Engagement
12 Laboratory Drive
Research Triangle Park, NC https://ulse.org/

Akhira Watson
akhira.watson@ul.org

ULSE
UL Standards & Engagement
1603 Orrington Ave, Suite 2000
Evanston, IL 60201
https://ulse.org/

Megan Monsen
megan.monsen@ul.org

Roger Pareja
roger.pareja@ul.org

ULSE
UL Standards & Engagement
1603 Orrington Ave, Suite 20000
Evanston, IL 60201
https://ulse.org/

Susan Malohn
Susan.P.Malohn@ul.org

ULSE
UL Standards & Engagement
1603 Orrington Ave., Suite 2000
Evanston, IL 60201
https://ulse.org/

Anna Roessing-Zewe
anna.roessing-zewe@ul.org

ULSE
UL Standards & Engagement
1603 Orrington Avenue, Suite 2000
Evanston, IL 60201
https://ulse.org/

Mitchell Gold
mitchell.gold@ul.org

ULSE
UL Standards & Engagement
47173 Benicia Street
Fremont, CA 94538
https://ulse.org/

Derrick Martin
Derrick.L.Martin@ul.org

Linda Phinney
Linda.L.Phinney@ul.org

ISO & IEC Draft International Standards

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

COMMENTS

Comments regarding ISO documents should be sent to ANSI's ISO Team (isot@ansi.org); comments on ISO documents must be submitted electronically in the approved ISO template and as a Word document as other formats will not be accepted.

Those regarding IEC documents should be sent to Tony Zertuche, General Secretary, USNC/IEC, at ANSI's New York offices (tzertuche@ansi.org). The final date for offering comments is listed after each draft.

ORDERING INSTRUCTIONS

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

ISO Standards

Agricultural food products (TC 34)

ISO/DIS 19599, Operating procedures of chicken slaughtering - 8/2/2024, $40.00

Aircraft and space vehicles (TC 20)

ISO/DIS 5461, Space systems - Failure reporting, analysis, and corrective action (FRACA) process requirements - 8/2/2024, $77.00

Anaesthetic and respiratory equipment (TC 121)

IEC/DIS 80601-2-23,, $102.00

Fire safety (TC 92)

ISO/DIS 3957, Reaction to fire tests - Parallel panel test method for wall systems - Measurement of heat release and smoke production - 8/1/2024, $102.00

Geographic information/Geomatics (TC 211)

ISO/DIS 19178-1, Geographic information - Training data markup language for artificial intelligence - Part 1: Conceptual model standard - 8/3/2024, $112.00

Geotechnics (TC 182)

ISO/DIS 16383-1, Geotechnical investigation and testing - Laboratory testing of rock - Part 1: Determination of water content - 8/2/2024, $46.00

Health Informatics (TC 215)

ISO/DIS 27269, Health informatics - International patient summary - 8/8/2024, $134.00

Implants for surgery (TC 150)

ISO/DIS 23317, Implants for surgery - Materials - Simulated body fluid (SBF) preparation procedure and test method to detect apatite formation in SBF for initial screening of bone-contacting implant materials - 8/1/2024, $67.00

IEC/DIS 80601-2-31,, $119.00

Information and documentation (TC 46)

ISO/DIS 16687, Impact assessment for museums - 8/4/2024, $107.00

Mining (TC 82)

ISO/DIS 22932-7, Mining - Vocabulary - Part 7: Ventilation - 8/3/2024, $98.00

Non-destructive testing (TC 135)

ISO/DIS 6366, Non-destructive testing - Leak testing - Radioactive tracer methods for pressured vessels and underground pipelines - 8/5/2024, $67.00

Nuclear energy (TC 85)

ISO/DIS 18518, Magnetic fusion facilities - Requirements for the safety systems raised by the application of the superconducting technology - 8/2/2024, $67.00

Other

ISO/DIS 25089, Leather - Tests for colour fastness - Colour fastness to sea water - 8/2/2024, $40.00

Personal safety - Protective clothing and equipment (TC 94)

ISO 16900-6:2021/DAmd 1, - Amendment 1: Respiratory protective devices - Methods of test and test equipment - Part 6: Mechanical resistance/strength of components and connections - Amendment 1 - 8/8/2024, $29.00

Petroleum products and lubricants (TC 28)

ISO/DIS 9038, Determination of sustained combustibility of liquids - 8/2/2024, $58.00

ISO/DIS 13357-2, Petroleum products - Determination of the filterability of lubricating oils - Part 2: Procedure for dry oils - 8/8/2024, $67.00

Plastics pipes, fittings and valves for the transport of fluids (TC 138)

ISO/DIS 4076, Polyphenylsulphone (PPSU) - Effect of time and temperature on expected strength - 8/1/2024, $53.00

Powder metallurgy (TC 119)

ISO/DIS 28079, Hardmetals - Palmqvist toughness test - 8/1/2024, $53.00

Pulleys and belts (including veebelts) (TC 41)

ISO/DIS 251, Conveyor belts with textile carcass - Widths and lengths - 8/2/2024, $33.00

Road vehicles (TC 22)

ISO/DIS 13400-2, Road vehicles - Diagnostic communication over Internet Protocol (DoIP) - Part 2: Transport protocol and network layer services - 8/2/2024, $146.00

Small tools (TC 29)

ISO/DIS 11901-2, Tools for pressing - Gas springs - Part 2: Specification of accessories - 8/3/2024, $62.00

Soil quality (TC 190)

ISO/DIS 16965, Environmental solid matrices - Determination of elements using inductively coupled plasma mass spectrometry (ICP-MS) - 8/2/2024, $77.00

Solid mineral fuels (TC 27)

ISO/DIS 23873, Hard coal - Method for the measurement of the swelling properties using a dilatometer - 8/2/2024, $62.00

Surface chemical analysis (TC 201)

ISO/DIS 20289, Surface chemical analysis - Total reflection X-ray fluorescence analysis of water - 8/8/2024, $71.00

Welding and allied processes (TC 44)

ISO/DIS 13916, Welding - Measurement of preheating temperature, interpass temperature and preheat maintenance temperature - 8/5/2024, $33.00

ISO/IEC JTC 1, Information Technology

ISO/IEC DIS 9234, Information technology - Information modelling for VR/AR/MR based learning, education and training systems - 8/8/2024, $102.00

ISO/IEC DIS 18026, Information technology - Spatial Reference Model (SRM) - 8/1/2024, $301.00

ISO/IEC DIS 29187-1, Information technology - Identification of privacy protection requirements pertaining to learning, education and training (LET) - Part 1: Framework and reference model - 8/2/2024, $175.00

IEC Standards

Alarm systems (TC 79)

79/708(F)/FDIS, IEC 62676-6 ED1: Video surveillance systems for use in security applications - Part 6: Performance testing and grading of real-time intelligent video content analysis devices and systems for use in video surveillance applications, 05/31/2024

All-or-nothing electrical relays (TC 94)

94/1011/CDV, IEC 63522-27 ED1: Electrical relays - Testing and Measurement - Part 27: Electrical contact noise, 08/09/2024

94/1012/CDV, IEC 63522-28 ED1: Electrical relays - Tests and Measurement - Part 28: Thermoelectric electromotive force (e. m.f.), 08/09/2024

94/1013/CDV, IEC 63522-38 ED1: Electrical relays - Testing and Measurement - Part 38: Mechanical interlock, 08/09/2024

94/1014/CDV, IEC 63522-46 ED1: Electrical relays - Tests and Measurements - Part 46: Impulse voltage test, 08/09/2024

Audio, video and multimedia systems and equipment (TC 100)

100/4146/CD, IEC 61937-17 ED1: Digital audio - Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 - Part 17: Non-linear PCM bitstreams according to the AVS3-P3 format, 07/12/2024

Documentation and graphical symbols (TC 3)

3/1664/CDV, ISO 82079-2 ED1: Preparation of information for use (instructions for use) of products - Part 2: Additional guidance for instructions for assembly of self-assembly products, 08/09/2024

Electric road vehicles and electric industrial trucks (TC 69)

69/959/CD, IEC 61851-21-1 ED2: Electric vehicle conductive charging system - Part 21-1 Electric vehicle on-board charger EMC requirements for conductive connection to AC/DC supply, 08/09/2024

69/955/CDV, IEC 62840-2 ED2: Electric vehicle battery swap system - Part 2: Safety requirements, 08/09/2024

69/962/NP, PNW 69-962 ED1: Protocol for management of electric vehicles charging and discharging infrastructures - Part 2: Technical protocol specifications and requirements, 08/09/2024

Electrical apparatus for explosive atmospheres (TC 31)

31J/366(F)/FDIS, IEC 60079-14 ED6: Explosive atmospheres - Part 14: Electrical installation design, selection and installation of equipment, including initial inspection, 05/31/2024

31G/396/CDV, IEC 60079-25/AMD1 ED3: Amendment 1 - Explosive atmospheres - Part 25: Intrinsically safe electrical systems, 08/09/2024

31/1768/CDV, IEC/IEEE 60079-30-1 ED2: Explosive atmospheres - Part 30-1: Electrical resistance trace heating - General and testing requirements, 08/09/2024

31/1769/CDV, IEC/IEEE 60079-30-2 ED2: Explosive atmospheres - Part 30-2: Electrical resistance trace heating - Application guide for design, installation and maintenance, 08/09/2024

Electromechanical components and mechanical structures for electronic equipments (TC 48)

48B/3109/FDIS, IEC 60512-28-100 ED3: Connectors for electrical and electronic equipment - Tests and measurements - Part 28-100: Signal integrity tests up to 2 000 MHz - Tests 28a to 28g, 06/28/2024

Fibre optics (TC 86)

86B/4926/CD, IEC 61300-3-52 ED2: Fibre optic interconnecting devices and passive components - Basic test and measurement procedures - Part 3-52: Examinations and measurements - Guide hole and alignment pin deformation constant for angled physically contacting rectangular ferrules, 07/12/2024

86B/4905/CDV, IEC 61753-022-13 ED1: Fibre optic interconnecting devices and passive components - Performance standard - Part 022-13: Multimode fibre optic connectors terminated as pigtails and patchcords for category OP+HD- Extended outdoor protected environment with additional heat dissipation, 08/09/2024

86C/1928/NP, PNW 86C-1928 ED1: Fibre optic sensors - Part 8 -1: Pressure measurement - Pressure sensors based on fibre Bragg gratings, 08/09/2024

Flat Panel Display Devices (TC 110)

110/1637/CDV, IEC 62629-62-12 ED1: 3D displays - Part 62-12: Measurement methods for virtual-image type - Image Quality, 08/09/2024

110/1647/DTR, IEC TR 62715-5-61 ED1: Flexible display devices - Part 5-61: Stretchable displays - Overview of measurement and application scenarios, 07/12/2024

Insulation co-ordination for low-voltage equipment (TC 109)

109/229(F)/CDV, IEC 60664-1/AMD1 ED3: Amendment 1 - Insulation coordination for equipment within low-voltage supply systems - Part 1: Principles, requirements and tests, 08/02/2024

Nanotechnology standardization for electrical and electronic products and systems (TC 113)

113/834/CD, IEC TS 62876-3-2 ED1: Nanomanufacturing - Reliability and durability assessment - Part 3-2: Graphene - Ellipsometry measurement of Graphene, 08/09/2024

113/835/CD, IEC TS 62876-3-4 ED1: Nanomanufacturing - Reliability assessment - Part 3-4: Linearity of output characteristics for metal contacted 2D semiconductor devices, 08/09/2024

Performance of household electrical appliances (TC 59)

59L/263/CD, IEC 62947/AMD1 ED1: Amendment 1 - Electrically operated spray seat for household and similar use - Methods for measuring the performance - General test methods of spray seats, 09/06/2024

Safety of hand-held motor-operated electric tools (TC 116)

116/787/FDIS, IEC 63241-2-3 ED1: Electric motor-operated tools - Dust measurement procedure - Part 2-3: Particular requirements for hand-held concrete grinders and disc-type sanders, 06/28/2024

Safety of household and similar electrical appliances (TC 61)

61/7253/FDIS, IEC 60335-2-6 ED7: Household and similar electrical appliances - Safety - Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances, 06/28/2024

Small power transformers and reactors and special transformers and reactors (TC 96)

96/599/FDIS, IEC 61558-2-5 ED3: Safety of transformers, reactors, power supply units and combinations thereof - Part 2 -5: Particular requirements and test for transformer for shavers, power supply units for shavers and shaver supply units, 06/28/2024

Standard voltages, current ratings and frequencies (TC 8)

8A/159/NP, PNW TS 8A-159 ED1: Grid compliance test for photovoltaic power plants, 08/09/2024

Switchgear and controlgear (TC 17)

17/1159/CD, IEC 62271-3 ED3: High-voltage switchgear and controlgear - Part 3: Digital interfaces based on IEC 61850, 08/09/2024

17A/1404/DTS, IEC TS 62271-319 ED1: Alternating current circuit-breakers intended for controlled switching, 07/12/2024

Wind turbine generator systems (TC 88)

88/1020/CDV, IEC 61400-5/AMD1 ED1: Amendment 1 - Wind energy generation systems - Part 5: Wind turbine blades, 08/09/2024

ISO/IEC JTC 1, Information Technology

(TC)

JTC1-SC25/3243/NP, PNW JTC1-SC25-3243 ED1: Information technology - Home Electronic System (HES) architecture - Part-4 -303 Application protocol for electric vehicle supply equipment (EVSE) chargers and controllers, 08/09/2024

JTC1-SC25/3244/NP, PNW JTC1-SC25-3244 ED1: Information technology - Home Electronic System (HES) architecture - Part-4 -304 Application protocol for electric vehicle supply equipment (EVSE) charger and dischargers and controllers, 08/09/2024

Newly Published ISO & IEC Standards

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

ISO Standards

Acoustics (TC 43)

ISO 21388-2:2024, Acoustics - Hearing aid fitting management - Part 2: Tele-services as part of hearing aid fitting management (tHAFM), $81.00

Additive manufacturing (TC 261)

ISO/ASTM 52928:2024, Additive manufacturing of metals-Feedstock materials - Powder life cycle management, $166.00

Corrosion of metals and alloys (TC 156)

ISO 11782-2:1998/Amd 1:2024, - Amendment 1: Corrosion of metals and alloys - Corrosion fatigue testing - Part 2: Crack propagation testing using precracked specimens - Amendment 1, $23.00

Ergonomics (TC 159)

ISO 17097:2024, 3-D human body scan data - Methods for the processing of human body scan data, $124.00

Furniture (TC 136)

ISO 16502-1:2024, Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 1: Ignition source: smouldering cigarette, $81.00

ISO 16502-2:2024, Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 2: Ignition source: match flame equivalent, $81.00

Graphical symbols (TC 145)

ISO 20712-3:2024, Water safety signs and beach safety flags - Part 3: Guidance for use, $166.00

Health Informatics (TC 215)

ISO 22287:2024, Health informatics - Workforce roles and capabilities for terminology and terminology services in healthcare (term workforce), $194.00

Healthcare organization management (TC 304)

ISO 6763:2024, Healthcare organization management - Pandemic response - Guidance on social distancing and source control, $81.00

Information and documentation (TC 46)

ISO 24138:2024, Information and documentation - International Standard Content Code (ISCC), $194.00

Materials, equipment and offshore structures for petroleum and natural gas industries (TC 67)

ISO 13680:2024, Oil and gas industries including lower carbon energy - Corrosion-resistant alloy seamless products for use as casing, tubing, coupling stock and accessory material - Technical delivery conditions, $278.00

Nuclear energy (TC 85)

ISO 12749-3:2024, Nuclear energy, nuclear technologies, and radiological protection - Vocabulary - Part 3: Nuclear installations, processes and technologies, $166.00

Optics and optical instruments (TC 172)

ISO 19012-4:2024, Microscopes - Designation of microscope objectives - Part 4: Polarization characteristics, $54.00

Other

ISO 21135:2024, Chemicals for the leather tanning industry - Determination of the total content of certain bisphenols, $124.00

Paper, board and pulps (TC 6)

ISO 15360-3:2024, Recycled pulps - Estimation of stickies and plastics - Part 3: Determination and identification by applying near-infrared measurement, $81.00

Petroleum products and lubricants (TC 28)

ISO 23581:2024, Petroleum products and related products - Determination of kinematic viscosity - Method by Stabinger type viscometer, $124.00

Plastics (TC 61)

ISO 6775:2024, Plastics - Plastics identification using Raman spectrometric methods, $166.00

Refrigeration (TC 86)

ISO/PAS 24499:2024, Method of test for burning velocity measurement of A2L flammable gases, $166.00

Road vehicles (TC 22)

ISO 22760-3:2024, Road vehicles - Dimethyl Ether (DME) fuel system components - Part 3: 85% stop valve, $54.00

ISO 22760-4:2024, Road vehicles - Dimethyl Ether (DME) fuel system components - Part 4: Level indicator, $54.00

ISO 22760-6:2024, Road vehicles - Dimethyl Ether (DME) fuel system components - Part 6: Pressure relief valve (PRV), $54.00

ISO 22760-9:2024, Road vehicles - Dimethyl Ether (DME) fuel system components - Part 9: Pressure relief device (PRD), $81.00

Rubber and rubber products (TC 45)

ISO 37:2024, Rubber, vulcanized or thermoplastic - Determination of tensile stress-strain properties, $194.00

ISO 2004:2024, Natural rubber latex concentrate - Centrifuged or creamed, ammonia-preserved types - Specifications, $54.00

Soil quality (TC 190)

ISO 18187:2024, Soil quality - Contact test for solid samples using the dehydrogenase activity of Arthrobacter globiformis, $194.00

Solid Recovered Fuels (TC 300)

ISO 4349:2024, Solid recovered fuels - Determination of the recycling index for co-processing, $166.00

(TC 337)

ISO 53800:2024, Guidelines for the promotion and implementation of gender equality and women's empowerment, $250.00

ISO Technical Reports

Laboratory glassware and related apparatus (TC 48)

ISO/TR 6037:2024, Automated liquid handling systems - Uncertainty of the measurement procedures, $223.00

Railway applications (TC 269)

ISO/TR 8941:2024, Railway infrastructure - Rail mounted construction, maintenance and inspection machines - Explanation of machine type, $223.00

ISO Technical Specifications

Clinical laboratory testing and in vitro diagnostic test systems (TC 212)

ISO/TS 5441:2024, Competence requirements for biorisk management advisors, $250.00

Graphic technology (TC 130)

ISO/TS 18621-22:2024, Graphic technology - Image quality evaluation methods for printed matter - Part 22: Evaluation of colour graininess, $81.00

Road vehicles (TC 22)

ISO/TS 18571:2024, Road vehicles - Objective rating metric for non-ambiguous signals, $278.00

ISO/IEC JTC 1, Information Technology

ISO/IEC 4879:2024, Information technology - Quantum computing - Vocabulary, $124.00

ISO/IEC 16022:2024, Information technology - Automatic identification and data capture techniques - Data Matrix bar code symbology specification, $278.00

ISO/IEC 10918-4:2024, Information technology - Digital compression and coding of continuous-tone still images - Part 4: APPn markers, $54.00

ISO/IEC 24773-2:2024, Software and systems engineering - Certification of software and systems engineering professionals - Part 2: Guidance regarding description of knowledge, skills, and competencies contained in schemes, $166.00

ISO/IEC 11179-34:2024, Information technology - Metadata registries (MDR) - Part 34: Metamodel for computable data registration, $223.00

ISO/IEC 29110-1-1:2024, Systems and software engineering - Lifecycle profiles for very small entities (VSEs) - Part 1-1: Overview, $124.00

ISO/IEC 29110-1-2:2024, Systems and software engineering - Lifecycle profiles for Very Small Entities (VSEs) - Part 1-2: Vocabulary, $124.00

ISO/IEC TS 20000-15:2024, Information technology - Service management - Part 15: Guidance on the application of Agile and DevOps principles in a service management system, $194.00

IEC Standards

Safety of hand-held motor-operated electric tools (TC 116)

IEC 62841-2-7 Ed. 1.0 en:2024 EXV, Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-7: Particular requirements for hand-held spray guns, $932.00

International Organization for Standardization (ISO)

Accreditation Announcements (US TAGs to ISO)

Transfer of TAG Administrator (US TAG to ISO TC 260)

Comment Deadline: June 23, 2024

The U.S. Technical Advisory Group to ISO **TC 260, *Human resource management*** has voted to approve the transfer of TAG Administrator responsibilities from the American National Standards Institute to the HR Certification Institute (HRCI). The TAG will continue to operate under its currently accredited operating procedures.

For additional information or to submit comments, please contact: Michaela Miller, Sr. Program Manager, Standards Facilitation, American National Standards Institute, 25 W 43rd Street, 4th Floor, New York, NY 10036; ph. 212.642.8934; email: mmiller@ansi.org (please copy jthompso@ansi.org). If no comments are received by June 23, 2024, this action will be formally approved, effective that date.

Call for U.S. TAG Administrator

ISO/TC 137 – Footwear sizing designations and marking systems

Comment Deadline: May 31, 2024

There is currently no ANSI-accredited U.S. TAG Administrator for ISO/TC 137 – *Footwear sizing designations and marking systems* and therefore ANSI is not a member of this committee. The Secretariat for the committee is held by South Africa (SABS).

ISO/TC 137 operates under the following scope:

Standardization of footwear sizing systems based on the measurement of the foot, and the designation and marking of such sizes; standardization of sizing ranges (unit and intervals); standardization of a system of calibrating the last or equivalent equipment; including the use of digital data, and terminology.

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

International Organization for Standardization (ISO)

Call for U.S. TAG Administrator

ISO/TC 190 – Soil quality

Comment Deadline: May 31, 2024

There is currently no ANSI-accredited U.S. TAG Administrator for ISO/TC 190 – *Soil quality*, or any of the active Subcommittees, and therefore ANSI is not a member of these committees. The Secretariats for the committees are held by:
ISO/TC 190 – *Soil quality*: Germany (DIN)
ISO/TC 190/SC 3 – *Chemical and physical characterization*: Germany (DIN)
ISO/TC 190/SC 4 – *Biological characterization*: France (AFNOR)
ISO/TC 190/SC 7 – *Impact assessment*: Germany (DIN)

ISO/TC 190 operates under the following scope:

Standardization in the field of soil quality
· *Soils in situ;*
· *Soil materials intended for reuse in or on soils, including dredged sub-aquatic soil materials (= excavated sediments).*

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

Call for U.S. TAG Administrator

ISO/TC 264 – Fireworks

Comment Deadline: May 31, 2024

There is currently no ANSI-accredited U.S. TAG Administrator for ISO/TC 264 – *Fireworks* and therefore ANSI is not a member of this committee. The Secretariat for the committee is held by China (SAC).

ISO/TC 264 operates under the following scope:

Standardization in the field of Fireworks, including quality control, definitions, terminology, classification, categorization, labelling, test methods and basic safety requirements.

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

Call for U.S. TAG Administrator

ISO/TC 54 – Essential oils

Comment Deadline: May 31, 2024

There is currently no ANSI-accredited U.S. TAG Administrator for ISO/TC 54 – *Essential oils* and therefore ANSI is not a member of this committee. The Secretariat for the committee is held by Spain (UNE).

ISO/TC 54 operates under the following scope:

Standardization of methods of analysis and specifications for essential oils.

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI's ISO Team (isot@ansi.org).

Meeting Notices (International)

American Society of Safety Professionals

U.S. TAG to ISO/TC 283 – Occupational health and safety management

Meeting Date: June 19, 2024 2:30 PM - 4:30 PM Central Time

The ANSI Accredited U.S. Technical Advisory Group (U.S. TAG) to ISO/TC 283 "Occupational health and safety management" has announced a virtual meeting on June 19, 2024 from 2:30 PM to 4:30 PM Central time. For more information or to participate, please contact the U.S. TAG Administrator, Mr. Tim Fischer (TFisher@assp.org).

Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.
When organization names are submitted to ANSI for registration, they will be listed here alphanumerically. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

Public Review

NOTE: Challenged alphanumeric names are underlined. The Procedures for Registration provide for a challenge process, which follows in brief. For complete details, see Section 6.4 of the Procedures.

A challenge is initiated when a letter from an interested entity is received by the Registration Coordinator. The letter shall identify the alphanumeric organization name being challenged and state the rationale supporting the challenge. A challenge fee shall accompany the letter. After receipt of the challenge, the alphanumeric organization name shall be marked as challenged in the Public Review list. The Registration Coordinator shall take no further action to register the challenged name until the challenge is resolved among the disputing parties.

Proposed Foreign Government Regulations

Call for Comment

U.S. manufacturers, exporters, trade associations, U.S domiciled standards development organizations and conformity assessment bodies, consumers, or U.S. government agencies may be interested in proposed foreign technical regulations notified by Member countries of the World Trade Organization (WTO). In accordance with the WTO Agreement on Technical Barriers to Trade (TBT Agreement), Members are required to notify to the WTO Secretariat in Geneva, Switzerland proposed technical regulations that may significantly affect trade. In turn, the Secretariat circulates the notifications along with the full texts. The purpose of the notification requirement is to provide global trading partners with an opportunity to review and comment on the regulations before they become final. The USA Enquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Enquiry Point relies on the WTO's ePing SPS&TBT platform to distribute the notified proposed foreign technical regulations (notifications) and their full texts available to U.S. stakeholders. Interested U.S. parties can register with ePing to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them. The USA WTO TBT Enquiry Point is the official channel for distributing U.S. comments to the network of WTO TBT Enquiry Points around the world. U.S. business contacts interested in commenting on the notifications are asked to review the comment guidance prior to submitting comments. For non-notified foreign technical barriers to trade for non-agricultural products, stakeholders are encouraged to reach out as early as possible to the Office of Trade Agreements Negotiations and Compliance (TANC) in the International Trade Administration (ITA) at the Department of Commerce (DOC), which specializes in working with U.S. stakeholders to remove unfair foreign government-imposed trade barriers. The U.S. Department of Agriculture's Foreign Agricultural Service actively represents the interests of U.S. agriculture in the WTO committees on Agriculture, Sanitary and Phytosanitary (SPS) measures and Technical Barriers to Trade (TBT). FAS alerts exporters to expected changes in foreign regulations concerning food and beverage and nutrition labeling requirements, food packaging requirements, and various other agriculture and food related trade matters. Working with other Federal agencies and the private sector, FAS coordinates the development and finalization of comments on measures proposed by foreign governments to influence their development and minimize the impact on U.S. agriculture exports. FAS also contributes to the negotiation and enforcement of free trade agreements and provides information about tracking regulatory changes by WTO Members. The Office of the United States Trade Representative (USTR) WTO & Multilateral Affairs (WAMA) office has responsibility for trade discussions and negotiations, as well as policy coordination, on issues related technical barriers to trade and standards-related activities.

Online Resources:
WTO's ePing SPS&TBT platform: https://epingalert.org/
Register for ePing: https://epingalert.org/en/Account/Registration
WTO committee on Agriculture, Sanitary and Phytosanitary (SPS) measures:
https://www.wto.org/english/tratop_e/sps_e/sps_e.htm
WTO Committee on Technical Barriers to Trade (TBT): https://www.wto.org/english/tratop_e/tbt_e/tbt_e.htm
USA TBT Enquiry Point: https://www.nist.gov/standardsgov/usa-wto-tbt-enquiry-point
Comment guidance:
https://www.nist.gov/standardsgov/guidance-us-stakeholders-commenting-notifications-made-wto-members-tbt-committee
NIST: https://www.nist.gov/
TANC: https://www.trade.gov/office-trade-agreements-negotiation-and-compliance-tanc
Examples of TBTs: https://tcc.export.gov/report_a_barrier/trade_barrier_examples/index.asp.
Report Trade Barriers: https://tcc.export.gov/Report_a_Barrier/index.asp.
USDA FAS: https://www.fas.usda.gov/about-fas
FAS contribution to free trade agreements: https://www.fas.usda.gov/topics/trade-policy/trade-agreements
Tracking regulatory changes: https://www.fas.usda.gov/tracking-regulatory-changes-wto-members
USTR WAMA: https://ustr.gov/trade-agreements/wto-multilateral-affairs/wto-issues/technical-barriers-trade
Contact the USA TBT Enquiry Point at (301) 975-2918; E usatbtep@nist.gov or notifyus@nist.gov.

BSR/ASHRAE Addendum d
to ANSI/ASHRAE Standard 15-2022

First Public Review Draft

Proposed Addendum d to Standard 15-2022, Safety Standard for Refrigeration Systems

First Public Review (May 2024)
(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.

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ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

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

FOREWORD

This proposed addendum to ANSI/ASHRAE Standard 15-2022 addresses changes of refrigerant to existing refrigeration systems, whether for changes within the same refrigerant safety group or to a different refrigerant safety group. The modifications apply to Sections 5.3, 7.7.3, 7.6.2, Informative Appendix A, and a new Informative Appendix H that provides guidelines for retrofit of certain types of refrigeration systems.

This proposed change clarifies requirements for refrigeration systems retrofitted or recommissioned with a new refrigerant designation. When the new refrigerant is classified (by ASHRAE Standard 34) in a different safety group than the original refrigerant, the equipment must meet the requirements of this standard for a new installation, with some provisions to address the listing requirements. For example, changing from safety group A1 to safety group A2L, A2, or A3 will require modifications such as refrigerant leak detection and mitigation (where applicable), as specified in UL/CSA 60335-2-89 2nd edition (2021) or UL/CSA 60335-2-40 4th edition (2022). The change of refrigerant to a new safety group will be required to be evaluated by a National Recognized Testing Laboratory (NTRL) or be approved by the Authority Having Jurisdiction (AHJ).

Note: 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 d to Standard 15-2022

Modify Section 5 as follows. The remainder of Section 5 remains unchanged.

5. REFRIGERATING SYSTEM CLASSIFICATION

[…]

5.3 Changing Refrigerant. […]

[…]

5.3.3* Where the replacement *refrigerant* is classified into the same safety group, requirements that were applicable to the existing system *shall* continue to apply.

5.3.4* Where the replacement *refrigerant* is classified into a different safety group, existing listing mark(s) *shall* be removed and the retrofitted *refrigeration system shall* comply with the requirements of this standard for a new installation, and written instructions provided by one of the following:
a. The original equipment *manufacturer*.
b. A registered design professional.
c. A *nationally recognized testing laboratory*.

~~the~~ The change of *refrigerant shall* require a field evaluation by a *nationally recognized testing laboratory* or AHJ approval.

Modify Section 7 as follows. The remainder of Section 7 remains unchanged.

7. RESTRICTIONS ON REFRIGERANT USE

[…]

7.6 Group A2L Refrigerants for Human Comfort.

{**Note to reviewers:** see published ***Addendum e*** to Standard 15-2022 for changes to Section 7.6. The section title changes to "High-Probability Air Conditioners, Heat Pumps, and Dehumidifiers Using Group A2L Refrigerants".}

[…]

7.6.2 Listing and Installation Requirements. Refrigeration systems *shall* be *listed* in accordance with UL 484 [11] or UL 60335-2-40 [5]/CSA C22.2 No. 60335-2-40 [6]. The *refrigeration system shall* be installed in accordance with Sections 7.6.2.1 through 7.6.2.5, the listing, the *manufacturer*'s instructions, and any markings on the equipment restricting the installation.

Exceptions to 7.6.2:

1. These requirements do not apply to *industrial occupancies*.
2. Where changing *refrigerant* in accordance with Section 5.3, the existing *refrigeration system shall not* be required, after the change of *refrigerant*, to be *listed* in accordance with UL 484 [11] or UL 60335-2-40 [5]/CSA C22.2 No. 60335-2-40 [6].

[…]

7.7 Group A2L Refrigerants for Refrigeration Systems Other Than Human Comfort.

{**Note to reviewers:** see published ***Addendum e*** to Standard 15-2022 for changes to Section 7.7. The section title changes to "High-Probability Commercial Refrigeration Systems using Group A2L Refrigerants".}

[…]

7.7.3 Listing and Installation Requirements. Refrigeration systems *shall* be *listed* to UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] and *shall* be installed in accordance with the listing and the *manufacturer*'s instructions.

Exceptions to 7.7.3:

1. These requirements do not apply to *industrial occupancies*.
2. Where changing *refrigerant* in accordance with Section 5.3, the existing *refrigeration system shall not* be required, after the change of *refrigerant*, to be *listed* in accordance with UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8].

[…]

Modify Informative Appendix A as follows. The remainder of Appendix A remains unchanged.

INFORMATIVE APPENDIX A

EXPLANATORY MATERIAL

Sections of the standard with associated explanatory information in this appendix are marked with an asterisk "*" after the section number.

Section 5.3.3

Informative Appendix H contains guidelines for conducting a change of refrigerant within the same safety group as part of a retrofit. Section H1 contains guidelines to field retrofit commercial refrigeration equipment. Guidelines for other equipment may be added in a future edition.

Section 5.3.4

Informative Appendix H1 contains guidelines for conducting a change of refrigerant within the same safety group as part of a retrofit. Sections H2 and H3 contains guidelines to field retrofit commercial refrigeration equipment. Guidelines for other equipment may be added in a future edition.

Add Informative Appendix H as follows.

INFORMATIVE APPENDIX H
CHANGE OF REFRIGERANT

H1. Guidelines to Field Retrofit Commercial Refrigeration Equipment within the Same Refrigerant Safety Group. Per Sections 5.3.2 and 5.3.3, where changing the *refrigerant* within the same safety group either the OEM, registered design professional, or *NRTL* may develop technical instructions for the field retrofit of the commercial refrigeration equipment or the *refrigeration system*.

H2. Guidelines to Field Retrofit Commercial Refrigeration Equipment from Refrigerant Safety Group A1 to Refrigerant Safety Group A2L. Per Sections 5.3.2 and 5.3.4, where changing the *refrigerant* to a different safety group, either the OEM or a registered design professional will collaborate with the *NRTL* to develop the written technical instructions for the field retrofit of the commercial refrigeration equipment or the *refrigeration system*. Examples of typical requirements for a field retrofit of commercial refrigeration equipment from an A1 to an A2L *refrigerant* include:

a. As applicable, demonstration of compliance to Annex CC of UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] with the same or a similar equipment model.

b. Evaluate the pressure requirements of the field retrofit *refrigerant relative* to the original *refrigerant*.

c. Evaluate the oil requirements for the field retrofit *refrigerant relative* to the original *refrigerant*.

d. Evaluate the sensor and *refrigerant detection system* requirements of the applicable product safety standard.

e. Evaluate the mitigation requirements of the applicable product safety standard.

f. Safety shut-off valves triggered by a leak detection system are installed and functional.

g. The maximum releasable charge from any independent *refrigerant* circuit is less than 9.2× *LFL* (lb) where *LFL* is in pounds per 1000 ft³ (260 × *LFL* [kg] where *LFL* is in kilograms per m³).

h. All electrical components inside of the display cases and walk-in coolers/freezers (WICFs) are acceptable for use with safety group A2L *refrigerants* or have been replaced with new ones that are in accordance with the applicable product safety standard.

i. The *manufacturer*(s) of the display cases have lab testing that show where the optimal leak sensor location is for each different type of merchandiser (i.e., a glass-door reach-in freezer may be different than an open multi-deck dairy case).

j. The releasable charge for any isolated portion of the commercial refrigeration system *shall* comply with the limits established in UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8], as applicable. Testing can be conducted on similar products (with test data).

k. If an existing compressor is reused, determine whether the compressor's OEM has evaluated suitability for the new safety group A2L *refrigerant*.

l. Evaluate components for compatibility to the field retrofit *refrigerant*, oils, additives, and replace the components with OEM recommended components for the field retrofit *refrigerant* (e.g. replacing seals and filters).

m. New marking instructions. Marking the ANSI/ASHRAE Standard 34 *refrigerant* designation (e.g., R-454C) and safety group (e.g., A2L) on all partial units (e.g., compressor rack, condenser, display case, walk- in unit cooler).

n. Marking the total *refrigerant* charge for the *refrigeration system* on the partial unit containing the compressor or compressors.

H3. Guidelines to Field Retrofit Commercial Refrigeration Equipment from Refrigerant Safety Group A1 to Refrigerant Safety Group A2 or A3.

Per Sections 5.3.2 and 5.3.4, where changing the *refrigerant* to a different safety group, either the OEM or a registered design professional will collaborate with the *NRTL* to develop the written technical instructions for the field retrofit of the commercial refrigeration equipment or the *refrigeration system*. Examples of typical requirements for a field retrofit of commercial refrigeration equipment from an A1 to an A2 or A3 *refrigerant* include:

a. The field retrofit must comply with the applicable product safety standard(s), i.e., UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8], including refrigerant charge limits and equipment location restrictions.

b. As applicable, demonstration of compliance to Annex CC of UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] with the same or a similar equipment model.

c. Evaluate the pressure requirements of the field retrofit *refrigerant relative* to the original *refrigerant*.

d. Evaluate the oil requirements for the field retrofit *refrigerant relative* to the original *refrigerant*.

e. Evaluate the sensor and *refrigerant detection system* requirements of the applicable product safety standard.

f. Evaluate the mitigation requirements of the applicable product safety standard.

g. The maximum releasable charge from any independent *refrigerant* circuit is less than 0.141× *LFL* (lb) where *LFL* is in pounds per 1000 ft³ (4.0 × *LFL* [kg] where *LFL* is in kilograms per m³).

h. All electrical components inside of the display cases and walk-in coolers/freezers (WICFs) are acceptable for use with safety group A2 or A3 *refrigerants* or have been replaced with new ones that are in accordance with the applicable product safety standard.
i. The *manufacturer*(s) of the display cases have lab testing that show where the optimal leak sensor location is for each different type of merchandiser (i.e., a glass-door reach-in freezer may be different than an open multi-deck diary case).
j. If an existing compressor is reused, determine whether the compressor's OEM has evaluated suitability for the new safety group A2 or A3 *refrigerant*.
k. Evaluate components for compatibility to the field retrofit *refrigerant*, oils, additives, and replace the components with OEM recommended components for the field retrofit *refrigerant* (e.g. replacing seals and filters).
l. New marking instructions. Marking the ANSI/ASHRAE Standard 34 *refrigerant* designation (e.g., R-290) and safety group (e.g., A3) on all partial units (e.g., compressor rack, condenser, display case, walk- in unit cooler).
m. Marking the total *refrigerant* charge for the *refrigeration system* on the partial unit containing the compressor or compressors.

BSR/ASHRAE Addendum j
to ANSI/ASHRAE Standard 15-2022

First Public Review Draft

Proposed Addendum j to Standard 15-2022, Safety Standard for Refrigeration Systems

First Public Review (Month 2024)
(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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ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

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FOREWORD

This proposed addendum removes the exception of Section 7.5.3 which allowed the use of an A3 or B3 refrigerant outdoors with no restriction other than the total charge limitation of Section 7.5.1.1. The proposal also removes the exception of Section 7.8 which allowed without restriction the outdoor use of an A2 refrigerant in high-probability systems for other than human-comfort. These exceptions were added under Addendum l for the 2019 edition of ASHRAE 15 and created an unintended loophole that permitted charge limits of up to 1100 lb (500 kg) if the refrigerating system is installed outdoors. Removal of the exception to Section 7.5.3 does not prohibit the installation of equipment outdoors using A3 or B3 refrigerants. Group A3 and B3 refrigerants may still be used outdoors if they are listed or not listed but approved by the AHJ. At this time, ASHRAE 15 does not address how all equipment must be installed outdoors when utilizing an A2, A3 or B3 refrigerant and there are safety concerns about how refrigerant may leak into spaces surrounding the refrigeration system. Additionally, the term "refrigeration system" replaced "systems" in Section 7.8.

Note: 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 j to Standard 15-2022

Modify Section 7 as follows. The remainder of Section 7 remains unchanged.

7. RESTRICTIONS ON REFRIGERANT USE

[…]

7.5 Additional Restrictions

[…]

7.5.3 Class 3 ~~Higher Flammability~~ Refrigerants for refrigeration systems. Refrigeration systems containing Group A3 and B3 *refrigerants* ~~*shall not*~~ *shall* only be used ~~except~~ where ~~*approved* by the AHJ.~~ at least one of the following is met:

~~**Exceptions to 7.5.3:**~~

~~1. This restriction does not apply to laboratories~~ a. The refrigeration system is installed in a laboratory with more than 100 ft² (9.3 m²) of space per person.

~~2. This restriction does not apply to *industrial occupancies*~~ b. The refrigeration system is installed in an *industrial occupancy*.

~~3. This restriction does not apply to *listed self-contained systems* containing~~ c. The refrigeration system is a *self-contained system*, is within *listed* equipment, contains no more than 0.331 lb (150 g) of Group A3 *refrigerant*, ~~provided that~~ and the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

~~4. This restriction does not apply to equipment *listed* to UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] containing no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft³ (13 × *LFL* [kg], where *LFL* is in kg/m³) of Group A3 *refrigerant*, provided that the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions. Refrigeration systems containing more than 0.141 × *LFL* (lb) (4 × *LFL* [kg]) in an *independent circuit shall not* be installed within 20 ft (6 m) of an open flame.~~

d. The refrigeration system is within equipment *listed* to UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] and all of the following provisions are met:

1. The refrigeration system contains no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft³ (13 × *LFL* [kg], where *LFL* is in kg/m³) of Group A3 refrigerant.
2. A refrigeration system containing more than 0.141 × *LFL* (lb) (4 × *LFL* [kg]) in any *independent circuit* is installed not less than 20 ft (6 m) from an open flame.
3. The equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

~~5. This restriction does not apply to~~ e. The refrigeration system is within equipment *listed* to UL 60335-2-40 [5]/CSA C22.2 No. 60335-2-40 [6] and ~~containing~~ contains no more than 0.106 × *LFL* (lb) (3 × *LFL* [kg]) of Group A3 *refrigerant*, ~~provided that~~ and the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

~~6. This restriction does not apply to refrigeration systems located in *machinery rooms* or outdoors.~~ f. The refrigeration system installation is *approved* by the AHJ and located in a *machinery room* in accordance with Sections 8.9 and 8.10.

[…]

*{Note to reviewers: published **Addendum e** also revises Section 7.8}*

7.8 Group A2 Refrigerants for Refrigeration Systems Other than Human Comfort. *High-probability systems* using Group A2 *refrigerants* for other than human comfort applications *shall* comply with this section. *Refrigeration systems* using Group A2 *refrigerants shall* be limited to *listed self-contained systems* containing no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft³ (13 × *LFL* [kg], where *LFL* is in kg/m³), provided that the system is installed in accordance with the listing and the *manufacturer*'s installation instructions. Refrigeration systems containing more than 0.141 × *LFL* (lb), (4 × *LFL* [kg]) in an *independent circuit shall not* be installed within 20 ft (6 m) of an open flame.

Exceptions to 7.8:

1. This restriction does not apply to laboratories with more than 100 ft² (9.3 m²) of space per person.
2. This restriction does not apply *industrial occupancies*.
3. This restriction does not apply to refrigeration systems located in *machinery rooms* ~~or outdoors~~.

*{Note to reviewers: below is a clean version showing the above proposed changes of **Addendum j** when combined with published **Addendum e**, only the proposed changes of Addendum j shown above are open for public comment}*

7.8* High-Probability Commercial Refrigeration Systems using Group A2 Refrigerants. *High-probability systems* using Group A2 *refrigerants* for commercial refrigeration applications within the scope of UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] *shall* comply with this section. *Refrigeration systems* using Group A2 *refrigerants shall* be limited to *listed self-contained systems* containing no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft³ (13 × *LFL* [kg], where *LFL* is in kg/m³), provided that the system is installed in accordance with the listing and the *manufacturer*'s installation instructions. Refrigeration systems containing more than 0.141 × *LFL* (lb), (4 × *LFL* [kg]) in an *independent circuit shall not* be installed within 20 ft (6 m) of an open flame.

Exceptions to 7.8:

1. This restriction does not apply to laboratories with more than 100 ft² (9.3 m²) of space per person.
2. This restriction does not apply *industrial occupancies*.
3. This restriction does not apply to refrigeration systems located in *machinery rooms*.

7.8.1 Listing and Installation Requirements. *Refrigeration systems shall* be *listed* to UL 60335-2-89 [7]/ CSA C22.2 No. 60335-2-89 [8] and *shall* be installed in accordance with the listing and the *manufacturer*'s instructions.

Exception to 7.8.1: These requirements do not apply to *industrial occupancies*.

BSR/ASHRAE Addendum n to ANSI/ASHRAE Standard 15-2022

First Public Review Draft

Proposed Addendum n to Standard 15-2022, Safety Standard for Refrigeration Systems

First Publication Public Review (February 2024)
(Draft shows Proposed Changes to Current Standard)

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First Public Review Draft

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FOREWORD

This proposed addendum n to ASHRAE Standard 15-2022 modifies portions of the document to improve readability of section 9.3.1.1 to clarify the section may be satisfied by simply complying with a, or b, or c. Additionally, the addendum correctly incorporates language that had previously been an exception.

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Addendum n to Standard 15-2022

Modify Section 9.3.1 as follows.

9.3 Refrigerant-Containing Pressure Vessels

9.3.1 Inside Dimensions 6 in. (152 mm) or Less. These vessels have an inside diameter, width, height, or cross-sectional diagonal not exceeding 6 in. (152 mm), with no limitation on length of vessel.

9.3.1.1 *Pressure vessels* having *inside dimensions* of 6 in. (152 mm) or less and with an internal or external design pressure greater than 15 psig (103.4 kPa gage) *shall* be one of the following:

a. *listed* either individually or as part of an assembly by a *nationally recognized testing laboratory*~~;~~

b. marked directly on the vessel or on a nameplate attached to the vessel with a "U" or "UM" symbol signifying compliance with *ASME Boiler and Pressure Vessel Code* [15], Section VIII~~; or~~

c. when requested by the authority having jurisdiction (AHJ), the *manufacturer shall* provide documentation to confirm that the vessel meets the design, fabrication, and testing requirements of *ASME Boiler and Pressure Vessel Code*, Section VIII.

Pressure vessels having *inside dimensions* of 6 in. (152 mm) or less *shall* be protected by either a *pressure relief device* or a *fusible plug*.

~~**Exception to 9.3.1.1:** Vessels having an internal or external *design pressure* of 15 psig (103.4 kPa gage) or less.~~

BSR/ASHRAE Addendum r
to ANSI/ASHRAE Standard 15-2022

First Public Review Draft

Proposed Addendum r to Standard 15-2022, Safety Standard for Refrigeration Systems

First Public Review (April 2024)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

ASHRAE RP–1807 investigated best practices for the handling, transportation, and storage of flammable refrigerants and the installation, servicing, and decommissioning of HVAC&R equipment containing flammable refrigerants. The investigators compared requirements in safety standards outside the US (e.g., Japan and Europe) with those in the US. Based on their research, the authors identified gaps in safety standards in the US and made recommendations to address these gaps. ASHRAE MTG.lowGWP tasked SSPC15 with reviewing the final report of RP–1807 and revising ASHRAE Standard 15 where appropriate. This addendum proposes changes to the standard based on RP–1807.

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Addendum r to Standard 15-2022

Modify Section 3 as follows. The remainder of Section 3 remains unchanged.

3. DEFINITIONS

3.1 Defined Terms

[…]

container (refrigerant): a cylinder or drum used for the transportation or storage of *refrigerant*.

[…]

internal gross volume: the volume as determined from internal dimensions of the *container* or *pressure vessel* with no allowance for the volume of internal parts.

[…]

Modify Section 10 as follows. The remainder of Section 10 remains unchanged.

10. GENERAL REQUIREMENTS

10.1 Signs and Identification.

[…]

10.1.3 Each entrance to a refrigerating machinery room shall be provided with a legible permanent sign, securely attached and easily accessible, reading “Machinery Room—Authorized Personnel Only.” The sign shall further communicate that entry is forbidden except by those personnel trained in the emergency procedures required by Section ~~10.6~~ 10.5 when the refrigerant alarm, required by Section 8.9.5, has been activated.

[…]

10.2 Charging, Withdrawal, and Disposition of Refrigerants. No service *containers shall* be left connected to a system except while charging or withdrawing *refrigerant*. *Refrigerants* withdrawn from *refrigerating systems shall* be transferred to *approved containers* only. Except for discharge of *pressure relief devices* and *fusible plugs*, incidental releases due to leaks, purging of noncondensables, draining oil, and other routine operating or maintenance procedures, no *refrigerant shall* be discharged to the atmosphere or to locations such as a sewer, river, stream, or lake.

Exception to 10.2: Service *containers* in accordance with Section 9.7 *shall* be permitted to be permanently connected to the *refrigeration system* with *piping* in accordance with Section 9.12.

[…]

~~**10.3 Containers**. *Containers* used for *refrigerants* withdrawn from a *refrigerating system shall* be as prescribed in the pertinent regulations of the U.S. Department of Transportation and *shall* be carefully weighed each time they are used for this purpose, and *containers shall not* be filled in excess of the permissible filling weight.~~

*~~10.4~~ 10.3 **Storing Refrigerant**.

[…]

~~10.5~~ 10.4 **Maintenance**.

~~10.5.1~~ 10.4.1 **Stop Valves**.

[…]

~~10.5.2~~ 10.4.2 **Calibration of Pressure Measuring Equipment**.

[…]

~~10.5.3~~ 10.4.3 **Periodic Tests**.

[…]

~~10.6~~ 10.5 **Responsibility for Operation and Emergency Shutdown**.

[…]

Modify Informative Appendix A as follows. The remainder of Informative Appendix A remains unchanged.

[…]

Section 10.2

Containers used for transportation of *refrigerants* withdrawn from a *refrigerating system* during servicing should be as prescribed in the pertinent national regulations, or regulations of the U.S. Department of Transportation where no other such national regulations exist[68]. *Containers* should be weighed each time they are used for this purpose and should not be filled in excess of the permissible filling weight.

Section 10.3

Storage *containers* should be designed, fabricated, tested, and marked with the specifications of manufacture and maintained in accordance with either the *ASME Boiler and Pressure Vessel Code*[15], Section VIII, or other pertinent national regulations. For example, in the United States, refer to US DOT regulations at 49 CFR Parts 100–185[68].

[…]

Modify Informative Appendix B as follows. The remainder of Informative Appendix B remains unchanged.

[…]

68. GPO. 2022. 49 CFR 100–185, *Pipeline and Hazardous Materials Safety Administration, Department of Transportation.* Washington, DC: U.S. Government Publishing Office.

[…]

Public Review Draft

Proposed Addendum e to Standard 189.1-2023

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

First Public Review (May, 2024)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

The intent of this addendum is to clean up and remove redundant language. Applicable climate zones remain unchanged.

The addendum expands the coverage of cool roof surfaces from 75% to 100%. This is consistent with Standard 90.1 provisions for cool roofs over conditioned space. This section already includes exceptions for roof areas covered by renewable energy systems, roof decks, and walkways. HVAC systems and skylights are added to the exceptions.

A new exception is added for roofs shaded by adjacent structures similar to language used in Standard 90.1. However, the energy efficiency exception is deleted since this section addresses heat island mitigation, not energy efficiency.

This addendum also changes the italicized "*roof*" as defined in Standard 90.1 to uninitialized "roof" because the common term is more applicable to heat island mitigation regardless of whether the space below the roof is conditioned or unconditioned. Stone ballasted roofs remains as a viable roof system in climate zones 4A and 4B.

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

Addendum e to 189.1-2023

Modify Section 5.3.5.3 as follows:

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

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

b. have a minimum three-year-aged *SRI* of 25 in accordance with Section 5.3.5.4 for *roofs* with a slope 2:12 or greater.

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

~~a. *Roof* penetrations and associated equipment.~~

~~b. *On-site renewable energy systems*, including photovoltaics, solar thermal energy collectors, and required access around the panels or collectors.~~

~~c. Portions of the *roof* used to capture heat for building energy technologies.~~

~~d. *Roof* decks and rooftop walkways.~~

~~e. Vegetated terrace and roofing systems complying with Section 5.3.5.5.~~

Exceptions to 5.3.5.3:

1. Roofs where not less than 75% of the roof surface is shaded during the peak sun angle on the summer solstice (June 21 in the northern hemisphere) by permanent components or features of the *building,* including adjacent buildings or structures.

~~1. *Building projects* where an annual energy analysis simulation demonstrates that the total annual building energy cost and total annual *CO2e*, as calculated in accordance with Section 7.6.2, are both a minimum of 2% less for the proposed *roof* than for a *roof* material complying with the *SRI* requirements of Section 5.3.5.3.~~

2. Existing buildings in Climate Zones 4A and 4B undergoing ~~alteration, repair, relocation, or a change in occupancy~~ roof replacement.

3. ~~*Roofs*~~ Roofs with exposed concrete used as a parking deck, ~~used to shade or cover parking, and *roofs* over *semiheated spaces*,~~ provided that they have a minimum initial *SRI* of 29. A default *SRI* value of 35 for new concrete without added color pigment is allowed to be used instead of measurements.

4. Stone ballasted *roofs* in Climate Zones 4A and 4B ~~having a stone ballast of not less than 17 lb/ft^2 (83 kg/m^2) or a paver ballast of not less than 23 lb/ft^2 (112 kg/m^2)~~.

5. Portions of the roof covered by permanently installed objects such as HVAC systems, solar energy systems, decks, and walkways.

6. Vegetated terrace and roofing systems complying with Section 5.3.5.5.

BSR/ASHRAE/IES Addendum u
to ANSI/ASHRAE/IES Standard 90.1-2022

Public Review Draft

Proposed Addendum u to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

Second Public Review (April 2024)
(Draft Shows Proposed Independent Substantive Changes to Previous Public Review Draft)

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FOREWORD

This addendum is a second public review ISC to make some changes are a result of the first public review. Only the changes are open for comment.

The following is the original foreword from the first public review.

This addendum addresses issues that have been reported with the minimum 50% turndown airflow defined in section 6.5.3.2 b, which states the following;

> 6.5.3.2 b. All other units, including DX cooling units and chilled-water units that control the space temperature by modulating the airflow to space, shall have modulating fan control. Minimum speed shall not exceed 50% of full speed. At minimum speed, the fan system shall draw no more than 30% of the power at full fan speed. Low or minimum speed shall be used during periods of low cooling load and ventilation-only operation.

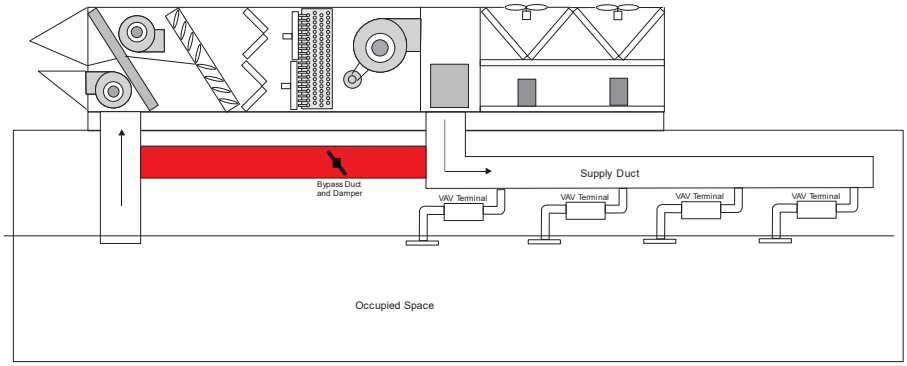
With the addition of occupied standby control as defined in 6.5.3.9, there have been issues with multi-zone VAV systems that control space temperature by modulating airflow to the space. Section 6.5.3.2 only requires turning down the fan speed to 50%. 50% speed is much higher than the minimum design ventilation rates for typical multi-zone VAV buildings. With occupied standby, the ventilation rates are even lower when operating in the ventilation-only mode. The following table shows minimum design ventilation rates for typical multi-zone VAV building applications.

Minimum ASHRAE 62.1 Design Ventilations Rates

Building Type	Average Design Ventilation Rate
Small Office	11.7%
Medium Office	19.2%
Large Office	19.9%
Outpatient	24.8%
Hospital	23.2%
Primary School	50.7%
Secondary School	54.4%

* Values based on ASHRAE 90.1 reference building models

These systems with only a minimum 50% airflow turndown rate can result in equipment cycling, poor control of the building VAV system, and, in some cases, tripping the unit's safety devices. To solve this problem, some applications have been forced to add a bypass duct, as shown in the figure, to allow air to recirculate and keep the unit from tripping on safety devices. However, this increases annualized fan power and product installation costs.



Multi-zone VAV systems today are equipped with inverter fan speed control and are capable of much lower speeds and turndown than the 50%. This addendum proposes to reduce the minimum airflow for Multi-zone VAV systems where the space temperature is controlled by modulating airflow from 50% to 15%. Also, the current power reduction requirement of 30% at 50% airflow is much higher than what is achieved by variable-speed inverter driver fan systems. Based on this, the fan system power requirements will be changed from 30% at 50% airflow to 16% at 15% airflow.

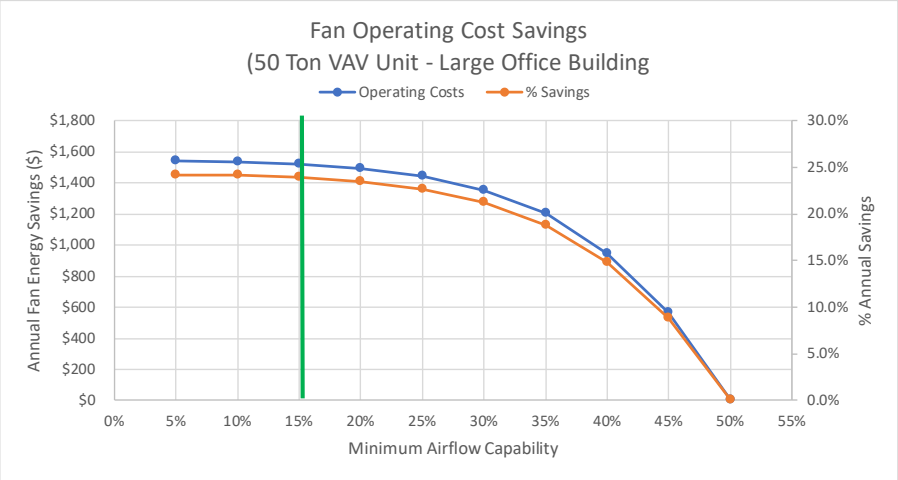
Note that this change only applies to multi-zone VAVs and does not apply to single-zone VAVs that control the capacity of mechanical cooling directly based on space temperature.

We checked the capabilities of variable speed drives and ECM motors and confirmed that the 15% minimum turndown is not a problem and can be done. Some qualifications for minimum airflow sensors and ensuring compressor capacity control will function may be required. It should be noted that this condition occurs at lower loads and ambient, and often, the unit is operating in integrated or economizer-only operation or just ventilation. Compressor cycling will likely occur, but units should be checked for operation without tripping. Also, the units should use supply air temperature reset control per section 6.5.3.5 and VAV setpoint reset per 6.5.3.2.3, which can help with building turndown requirements.

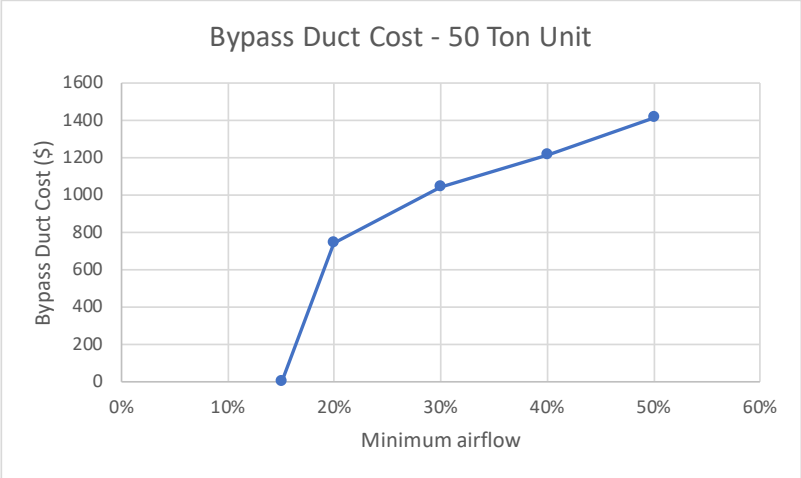
Note: This ISC incorporates a new definition, "design minimum outdoor air rate," that was approved in addendum p and will likely be published before this draft ISC is published for public comment. To make it easier for reviewers, the definition and another related definition are shown below:

> **Outdoor air rate, required minimum**: the larger of the minimum *outdoor air* rate required for *ventilation*; the required minimum exhaust air rate; or the *outdoor air* rate required to meet pressurization requirements as defined by one or more of the following as applicable to the *HVAC zone* or *HVAC system*:
>
> - ASHRAE Standard 62.1 using the Ventilation Rate Procedure for all *spaces* and *systems* and the Simplified Procedure for multiple zone recirculating *HVAC systems*
> - ASHRAE Standard 62.2
> - ASHRAE Standard 170
> - Other codes or accreditation standards approved by the *authority having jurisdiction*
>
> **Outdoor air rate, design minimum**: the lowest quantity of *outdoor air* an *HVAC system* is designed to supply to the *space*(s) it serves when these *space*(s) are occupied at design occupancy levels.

Cost justification: Most multi-zone VAV units sold today can have much lower turndown rates. Lower turndown rates will result in significant fan savings vs a unit that uses a bypass duct to meet the required minimum building airflow deliver rates. The following curve shows the annual fan energy savings relative to a unit that only turns down to 50% airflow for a typical 50-ton multi-zone VAV unit applied to the large office building. The curve is the average of a detailed study of all 19 climate zones. As you can see the fan energy is reduced 24% relative to the current required minimum turndown of 50%



It is likely that there will not be any cost impact on a properly designed true multi-zone VAV system. However, some designers are using single-zone VAV equipment and trying to use full VAV using hot gas bypass and limited airflow modulation that a true multizone VAV system requires and are forced in the field to use bypass ducts. Considering the cost of increases for use of the bypass duct, there is actually a cost reduction at the system level by elimination of a bypass duct to allow for proper system operation. The following curve shows an estimate of the cost for the bypass duct and controls for a 50-ton unit as a function of the minimum turndown.



Also, for limited VAV turn down there is significant energy savings for fans systems that can turn down below the current 50% requirement.

Some added costs may be needed for units with very limited capacity control that meet the minimum requirements of table 6.5.1.3. Still, the significant fan energy savings and elimination of the bypass duct will easily cover this.

Considering the significant energy savings and the potential elimination of the bypass duct, this change essentially has first-cost savings and, therefore, less than a zero-payback period. Even if some units have to add some cost for fan turndown, that proposed change is easily cost-justified.

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

Addendum u to 90.1-2022

Make the following changes to 6.5.3.2.1 Supply Fan Airflow Control for both IP and SI

6.5.3.2 Fan Control

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 supply fan airflow as a function of load and shall comply with the following requirements:

a. Single-zone *VAV* DX and chilled-water cooling units that *control* the capacity of the *mechanical cooling* directly based on *space* temperature shall have a minimum of two stages of fan control. Low or minimum airflow shall not exceed 66% of design airflow. At low or minimum airflow, the fan *system* shall draw no more than 40% of the fan power at design airflow. Low or minimum airflow shall be used during periods of low cooling load and *ventilation*-only operation.

b. All other units, including multiple-zone *VAV* DX cooling units and chilled-water units that *control* the *space* temperature by modulating the airflow to the *space*, shall have modulating fan control. Minimum supply fan airflow shall not exceed the greater of 15% of design airflow or the *design minimum outdoor air rate*. Low or minimum airflow shall be used during periods of low cooling load and *ventilation*-only operation. *Mechanical cooling,* economizer, and ventilation shall ~~operate at not less than 15%~~ not limit the unit from operating at minimum supply fan ~~design~~ airflow.

c. Units that include an air economizer to meet the requirements of Section 6.5.1 shall have a minimum of two speeds of fan control during economizer operation.

Exceptions to 6.5.3.2.1:

1. Modulating fan control is not required for chilled-water and evaporative cooling units with <1 hp (0.75 kW) fan motors if the units are not used to provide ventilation air and if the indoor fan cycles with the load.

2. If the volume of *outdoor air* required to meet the *ventilation* requirements of Standard 62.1 at low airflow exceeds the air that would be delivered at the airflow defined in Section 6.5.3.2.1(a) or 6.5.3.2.1(b) then the minimum airflow shall be selected to provide the required *ventilation* air.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for Health Sciences –

Dietary Supplements

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4 Labeling and Literature Requirements

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4.2 Probiotics

For products and ingredients containing probiotics, the following information ~~must~~ shall be present on the label:

— minimum CFU count, viable cell count (expressed according to the method used), or a combination of both, of each strain of live microorganism at the time of the product or ingredient's expiration, or at time of production if no expiration date is applied; or

— minimum total CFU count, viable cell count (expressed according to the method used), or a combination of both, for a blend of live microorganisms at the time of the product or ingredient's expiration, or at time of production if no expiration date is applied; and

— strength values depicted on a probiotic-containing ingredient or product are consistent with the test(s) used by the company in establishing their specifications; and

— storage directions that guarantee the minimum CFU count(s), viable cell count(s), or a combination of both, at the time of expiration, or at time of production if no expiration date is applied; and

— identification of the probiotic including genus, species, and strain based on widely accepted nomenclature. If a trademarked name is used to identify the bacteria, the genus, species, and strain should also be included on the label; and

— finished products offered for sale in the USA must first list the quantity of a strain or blend of strains in terms of weight (e.g. milligrams); the labeling regulations of other jurisdictions outside of the USA shall take precedence over those offered herein.

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for GMP for Over-the-Counter Drugs –

Good Manufacturing Practices for Over-the-Counter Drugs

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4 Audit requirements

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4.5 Operation

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4.5.4 Receiving, sampling, testing, release procedures have been established. If conducted, procedures shall be in place for retesting of materials. [21 CFR § 211.80, 21 CFR § 211.82, 21 CFR § 211.84 & 21 CFR § ~~211.84~~ 211.87]

4.5.5 Components are sampled, tested, and released prior to use in production. [21 C.F.R. § 211.80, 21 C.F.R. § 211.82, 21 C.F.R. § 211.84, 21 C.F.R. § 211.86 & 21 C.F.R. § 211.87 ~~21 C.F.R. § 211.84~~]

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI Standard
for GMP for Over-the-Counter Drugs –

Good Manufacturing Practices for Over-the-Counter Drugs

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4 Audit requirements

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4.5 Operation

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4.5.1 Manufacturing processes ~~have been~~ are validated to produce a product that consistently meets specifications. [21 C.F.R. § 211.100, 21 C.F.R. § 211.110, 21 C.F.R. § 211.111, 21 C.F.R. § 211.113 & U.S. FDA Process Validation Guidelines]

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4.5.10 Procedures have been established for the cleaning and sanitization of all utensils and equipment. Cleaning validation studies have been completed for product contact parts and equipment. [21 C.F.R. § 211.42 & 21 C.F.R. § 211.67]

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4.5.58 Procedures designed to prevent microbiological contamination of drug products shall be established and followed. 211.113

4.5.59 Environmental Monitoring Program shall include controls to mitigate the presence of microorganisms and particulate in processing areas. 211.42, 211.113

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI/CAN Standard
for Drinking Water Additives –

Drinking Water Treatment Chemicals – Health Effects

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1.3 Normative references

The following documents contain requirements, which by reference in this text, constitute requirements of this standard. At the time this standard was balloted, the editions listed below were valid. All documents are subject to revision, and parties are encouraged to investigate the possibility of applying the recent editions of the documents indicated below. The most recent published edition of the document shall be used for undated references.

~~21 CFR Part 58, *Good Laboratory Practice for Non-Clinical Laboratory Studies*[1]~~

~~40 CFR Part 160, *Good Laboratory Practice Standards*[1]~~

~~40 CFR Part 798, *Health Effects Testing Guidelines*[1]~~

40 CFR Part 141, *National Primary Drinking Water Regulations*[4]

APHA/AWWA/WEF, *Standard Methods for the Examination of Water and Wastewater*, twenty-fourth ~~twenty-second~~ edition[5]

AWWA B300-18, *Hypochlorites*[6]

ASTM E29-02, *Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications*[67]

~~ASTM G22-76 (1996), *Standard Practice for Determining Resistance of Plastics to Bacteria*~~ **~~Error! Bookmark not defined.~~**

[4] National Archives and Records Administration, Office of the Federal Register. 7 G Street NW, Suite A-734, Washington, DC 20401. <www.ecfr.gov>
[5] American Public Health Association, American Water Works Association, and Water Environment Federation. <www.standardmethods.org>
[6] American Water Works Association. 6666 W Quincy Avenue, Denver, CO 80235. <www.awwa.org>
[67] ASTM International. 100 Barr Harbor Drive, West Conshohocken, PA 19428-2859. <www.astm.org>

~~CGA, G-6.2-1994, *Commodity Specification for Carbon Dioxide*[7]~~

NSF/ANSI/CAN 600, *Health Effects Evaluation and Criteria for Chemicals in Drinking Water*

~~OECD, *Guidelines for the Testing of Chemicals*, May 1996.[2]~~

~~U.S. EPA-600/4-79-020, *Methods for the Chemical Analysis of Water and Wastes*, March 1983[3]~~

U.S. EPA-600/4-80-032, *Prescribed Procedures for Measurement of Radioactivity in Drinking Water*[38]

~~U.S. FDA, *Toxicological Principles for the Safety Assessment of Direct Food Additives and Color Additives in Food*.[4]~~

Rationale: Removes normative references that are not mentioned within the body of the standard. Adds normative references that were not previously listed.

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1.5 Significant figures and rounding

When determining conformance with the specifications in this standard, the Absolute Method in ASTM E29 *Standard Practice for Using Significant Digits in Test Data to Determine Conformance With Specifications* shall be used. When rounding data, the Rounding Procedure in Section 7.4 ~~6.4~~ of ASTM E29 shall be used.

Rationale: Updates were made to ASTM E29, which altered the section numbers within the text. The proposed change updates the reference to the appropriate section for ASTM E29.

~~[7] Compressed Gas Association. 1725 Jefferson Davis Highway, Suite 1004, Arlington, VA 22202-4102. <www.cganet.com>~~

~~[8] Organization for Economic Cooperation and Development. 2 Rue Andre-Pascal, 75775 Paris Cedex 16, France. <www.oecd.org>~~

[98] US Environmental Protection Agency. 1200 Pennsylvania Avenue NW, Washington, DC 20004. <www.epa.gov>

~~[10] US Department of Health and Human Services, Public Health Service, Food and Drug Administration. 10903 New Hampshire Ave, Silver Spring, MD 20993. <www.fda.gov>~~

Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI/CAN Standard
for Drinking Water Additives –

Drinking Water Treatment Chemicals – Health Effects

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6 Disinfection and oxidation chemicals

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6.3 General requirements

6.3.1 General information about the products covered in this section is summarized in Table 6.2.

6.3.2 Hypochlorite treatment chemicals

Bromate is a known contaminant of the hypochlorite chemical production process. Based on the limited number of sources of bromate in drinking water (ozonation is another known source), the SPAC for bromate has been determined to be 0.0033 mg/L, 33% ~~30%~~ of the U.S. EPA maximum contaminant level (MCL) of 0.010 mg/L. All hypochlorite treatment chemicals shall meet the bromate SPAC of 0.0033 mg/L.

~~**6.3.2.1** Bromate is a known impurity of the hypochlorite chemical production process. Because of the potential cancer risk associated with human exposure to bromate, it is recommended that production or introduction of bromate into drinking water be limited. The two major sources of bromate in drinking water are ozonation of water containing bromide and use of hypochlorite treatment chemicals containing bromate (sodium and calcium hypochlorites). All hypochlorite treatment chemicals shall meet the bromate SPAC of 0.0033 mg/L.~~

Although the MUL may be less than 10 mg/L of Cl_2, it shall not be less than 2 mg/L of Cl_2.

Rationale: Removes duplicate language in Section 6.3.2.1 and corrects a calculation error.

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Normative Annex 1

(previously Annex B)

Sampling, preparation, and analysis of samples

N-1.4 Analysis methods

N-1.4.1 General

~~This section is divided into three parts: inorganics (metals and others), organics, and radionuclides.~~

N-1.4.2 Inorganics and Organics

~~N-1.4.2.1 Metals~~

Analyses for ~~metals,~~ inorganics (metals and others) and organics shall be performed in accordance with currently accepted U.S. EPA Methods (see 40 CFR Part 141), except as otherwise provided for herein. When no U.S. EPA method is provided, analyses shall be performed in accordance with *Standard Methods for the Examination of Water and Wastewater* (most current edition).

If neither of these references includes the required method, a method from another recognized source shall be allowed, and the method cited and validated. If no recognized method is available, a method shall be developed, provided the method is fully documented and validated, including all appropriate quality assurance procedures. The method used to determine the contaminant level shall have an analytical concentration range, such that the report limit is no greater than 50% of the lowest contaminant concentration being sought. Quality control standards shall be run at concentrations of 0.5, 1.0, 2.0, 5.0, and 10.0× the target limit.

~~N-1.4.2.2 Nonmetallic inorganics~~

~~Analyses for inorganics (other than metals) shall be performed in accordance with currently accepted U.S. EPA Methods (see 40 CFR Part 141), except as otherwise provided for herein. When no U.S. EPA method is provided, analyses shall be performed in accordance with *Standard Methods for the Examination of Water and Wastewater* (most current edition).~~

~~If neither of these references includes the required method, a method from another recognized source shall be allowed, and the method cited and validated. If no recognized method is available, a method shall be developed, provided the method is fully documented and validated, including all appropriate quality assurance procedures. The method used to determine the contaminant level shall have an analytical concentration range, such that the report limit is no greater than 50% of the lowest contaminant concentration being sought. Quality control standards shall be run at concentrations of 0.5, 1.0, 2.0, 5.0, and 10.0× the target limit.~~

N-1.4.2.2.1 Oxyhalides in hypochlorite

The analysis of bromate, chlorate and perchlorate shall be performed in accordance with Section N-1.4.2~~.2.~~ Selection of the method shall take into consideration the type of quenching agent used in order to minimize interference.

Spiked samples shall be processed with each analytical batch or every 10 samples, whichever is the greater number. A spiked sample shall be prepared for each hypochlorite type. The percent recovery of spiked

samples shall be within 80% to 120%. Matrix spikes shall be performed in duplicate. The matrix spike, matrix spike duplicate shall have a calculated relative percent difference of ≤ 20%.

If the analytical methodology performed employs an internal standard or surrogate, the percent recovery criteria for either quality control compound shall be within 70% to 130%, or if outside that range, a sample spike performed and demonstrated a percent recovery of 80% to 120% obtained. For analytical methodologies not employing an internal standard or surrogate, spiked samples shall be processed with each analytical batch or every five samples, whichever is the greater number.

Blank samples shall be prepared using the same reagents and quantities used in the sample preparation, placed in vessels of the same type, and processed with the samples.

N-1.4.2.2.2 Bromide in sodium chloride

The analysis of bromide in sodium chloride shall be performed in accordance with Section N-1.4.2~~.2.~~

Spiked samples shall be processed with each analytical batch or every 10 samples, whichever is the greater number. A spiked sample shall be prepared for each batch. The percent recovery of spiked samples shall be within 80% to 120%. Matrix spikes shall be performed in duplicate. The matrix spike, matrix spike duplicate shall have a calculated relative percent difference of < 20%.

If the analytical methodology performed employs an internal standard or surrogate, the percent recovery criteria for either quality control compound shall be within 70% to 130%, or if outside that range, a sample spike performed and demonstrated a percent recovery of 80% to 120% obtained. Blank (control) samples shall be prepared using the same reagents and quantities used in the sample preparation, placed in vessels of the same type, and processed with the samples.

~~**N-1.4.3 Organics**~~

~~Analyses for organics shall be performed in accordance with currently accepted U.S. EPA Methods (see 40 CFR Part 141), except as otherwise provided for herein. When no U.S. EPA Method is provided, analyses shall be performed in accordance with *Standard Methods for the Examination of Water and Wastewater* (most current edition).~~

~~If neither of these references includes the required method, a method from another recognized source shall be allowed, and the method cited and validated. If no recognized method is available, a method shall be developed, provided the method is fully documented and validated, including all appropriate quality assurance procedures. The method used to determine the contaminant level shall have an analytical concentration range, such that the report limit is no greater than 50% of the lowest contaminant concentration being sought. Quality control standards shall be run at concentrations of 0.5, 1.0, 2.0, 5.0, and 10.0× the target limit.~~

Rationale: Combines inorganics and organics in Section 1.4 to minimize redundancy.

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N-1.4.3.1.4.1 Preparation of solutions

The following standards and solutions shall be prepared.

a) Prepare a stock solution of each compound of interest by weighing approximately 0.1 g of the neat material into a 10 mL volumetric flask, and dilute to volume with methylene chloride.

b) Prepare an internal standard stock solution by weighing 0.1 g 1,3-dichloroacetone into a 10 mL volumetric flask, and dilute to volume with methylene chloride.

c) Prepare a dilution standard at 1,000 µg/mL by adding the appropriate volumes of each stock standard to a 10 mL volumetric flask containing methylene chloride / isopropanol (1:1). ~~Add an appropriate volume of the internal standard stock solution to give a 1,3-dichloroacetone concentration of 100 µg/mL and~~ dilute to mark.

d) Prepare an extracting solution by weighing 0.0500 g of 1,3-dichloroacetone into a 500 mL volumetric flask and add 250 mL methylene chloride to dissolve. Dilute to mark with isopropanol. The resulting solution shall be used to prepare calibration standards and as the extracting solution for the polymer products.

e) Prepare five calibration standards at concentrations of 5.0, 10, 25, 50, and 200 µg/mL by serial dilution of the 1,000 µg/mL dilution standard using the extracting solution.

Rationale: Removes language that mistakenly calls for two different dilutions.

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N-1.4.~~3~~4 Radionuclides

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[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale Statements are in *italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI/CAN Standard
for Drinking Water Additives –

Drinking Water Treatment Chemicals – Health Effects

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Normative Annex 1
(previously Annex B)

Sampling, preparation, and analysis of samples

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N-1.4 Analysis methods

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N-1.4.3.2.1.1 Apparatus

The following apparatus shall be used in this analysis:

— vacuum apparatus or Sonicator to degas mobile phase;

— HPLC pump;

— HPLC-UV spectrophotometric detector;

— YMC ODS-AL column, 4.6 × 150 mm, (AL12S05-1546WT); Guard Housing (XPEF43WTI); and YMC ODS-AL S-5 Guard Column (AL12S05 G 304WTA);
— Bio-Rad HPLC Fast Acid Analysis Column Cat. No. 125-0100 and Micro-Guard Refill Cartridges Cat. No. 125-0129;

— autosampler 100 µL capabilities;

— analytical data acquisition system;

— millipore 0.1 VV µm filter disc or equivalent and 0.22 µm GS filter paper;

— volumetric pipettes;

- analytical balance accurate to 0.0001 g;
- multi-plate stirrer and 1 in stirring bars;
- vacuum filtration flasks;
- 100 mL volumetric flasks;
- 400 mL beakers;
- vacuum manifold for 0.1 µm Millex-VC filters or equivalent; and
- for latex: cage stirrer, Jiffy mixer, Model LM, or equivalent and cone-driven stirring motor.

N-1.4.3.2.1.2 Reagents

The following reagents shall be used in this analysis:

- concentrated sulfuric acid (H_2SO_4) reagent grade;
- acrylamide of 99%+; and
- ~~Milli-Q~~ Type I water in accordance with ASTM D1193 water.

N-1.4.3.2.1.3 Procedure

N-1.4.3.2.1.3.1 Preparation of mobile phase

The mobile phase shall be prepared in the following manner:

a) Add 1.0 mL of concentrated sulfuric acid to a 2 L volumetric flask, ~~QS~~ dilute to volume with DI water and mix well. This yields a solution of sulfuric acid at approximately 0.01 M.

b) Filter through 0.22 µm GS Millipore filter paper or equivalent.

c) Vacuum or ultrasonicate to degas.

N-1.4.3.2.1.3.2 Sample preparation

- dry polymer preparation:

a) Weigh 199.5 ± 0.1 g DI water into a 400 mL tall form beaker. Record the weight as W_{wt}.

b) Clamp beaker under the mixer with the impeller centered about 1 cm above the bottom of the beaker.

c) Set mixer speed to 800 ± 20 rpm.

d) Place 0.5 g (to the nearest 0.1 mg) of dry polymer into the beaker. Record the weight as DP_{wt}.

e) Mix at 800 rpm for 30 min.

— chromatography sample preparation for dry polymer:

a) Weigh 1.0 g (to the nearest 0.1 mg) of the solution prepared in Section N-1..4.3.2.1.3.2.e into a glass jar. Record the weight as DP_S.

b) Add 10 mL of mobile phase weighed to the nearest (0.1 mg) into the same jar. Record the total weight as DP_T.

c) Add a stir bar and stir for 30 min at a medium speed.

d) After 30 min, filter through a 0.1 µm Millex-VC or equivalent using a vacuum manifold.

e) The sample is now ready for injection.

— chromatography sample preparation for latex polymer:

a) Weigh 0.1 g (to the nearest 0.1 mg) of latex polymer into a 100 mL volumetric flask. Record the weight as LP_{wt}.

b) ~~QS~~ Dilute to volume the flask with mobile phase.

c) Add a stir bar and stir for 30 min at a medium speed.

d) After 30 min, filter through a 0.1 µm Millex-VV filter unit or equivalent.

e) The sample is now ready for injection.

Rationale: Adds "or equivalent" to allow for the use of generic options rather than trademarked products. Replaces "QS" with "dilute to volume" to eliminate confusion.

BSR/UL 486F, Standard for Safety for Bare and Covered Ferrules

1. The Proposed Third Edition of the Standard for Bare and Covered Ferrules, UL 486F

PROPOSAL

1.3 When intended for use with one conductor, these ferrules are suitable for use with 777 kcmil – 26 AWG, 380 – 0.14 mm², stranded copper conductors. For conductor sizes 8 AWG, 10 mm² or larger, these ferrules are suitable for use with stranded copper conductors that are more finely stranded than Class B or C conductors.

Note: Examples of stranding classes more finely stranded than class B or C are classes G, H, I, K, M, ~~DLO,~~ 5, and 6. In addition, Type DLO cable is more finely stranded than Class B or C.

10.2 Installation Instructions

~~10.2.1 These ferrules are intended for installation using only crimping tools as specified by the ferrule's manufacturer.~~

~~10.2.2~~ 10.2.1 Ferrules rated for 2/0 AWG or larger conductor shall have the ~~The~~ following information ~~shall be~~ provided in or on ~~the form of instructions included in~~ the smallest unit package:

a) These ferrules are intended for use with dome and conical shaped screws that apply direct pressure to the conductor being terminated; and

~~b) Manufacturer's name and catalog number of the installation tools that are used to assemble the ferrules.~~

b) These ferrules may be used with equipment having short circuit ratings of:

1) 85,000 A maximum, or

2) 100,000 A maximum if supplied by an overcurrent protective device, and the equipment short-circuit current rating divided by the number of conductors per phase, results in a current of 50,000 A or less per conductor.

10.2.2 The following information shall be provided in or on the smallest nit package; manufacturer's name and catalog number of the installation tools that are used to assemble the ferrules.

TABLES

**Note from Project Manager. For consistency, all decimal commas will be change to decimal periods.*

Table 8
Tensile force

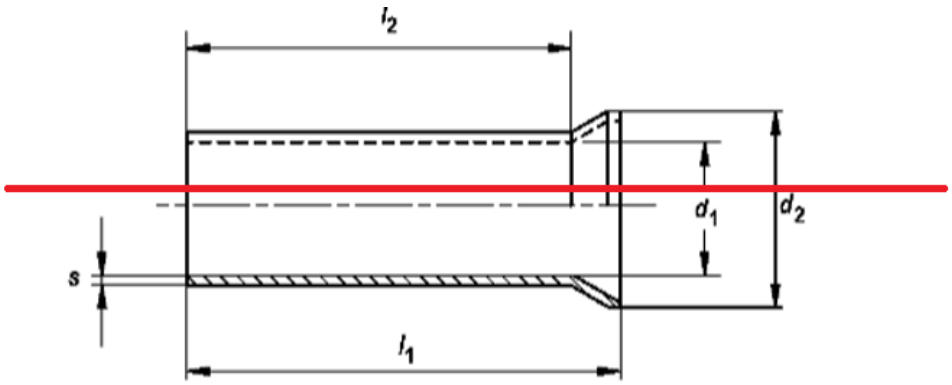
Conductor cross section		Force[a]
AWG	mm²	N(lbf)
26	0,14	7(1,6)
24	0,25	10(2,2)
22	0,34	15(3,4)
20	0,5	20(4,5)
18	0.75	30(6,7)

Conductor cross section		Force[a]
AWG	mm²	N(lbf)
	1	35(7,9)
16	1,5	40(9)
14	2,5	50(11,2)
12	4	60(13,5)
10	6	80(18)
8	10	90(20,2)
6	16	100(22,5)
4	25	135(30,3)
2 – 1/0	35 – 50	190(42,7)
2/0	70	285(64)
3/0	95	351(79)
4/0 - 300	120 - 150	427(96)
350 - 400	185	503(113)
500 - 777	240 - 380	578(130)

[a] Values of force for conductor sizes not provided in the table shall be determined by interpolation of adjacent conductors based on the conductors size.

Figure 1

Tubular ferrules without plastic sleeve, Form A



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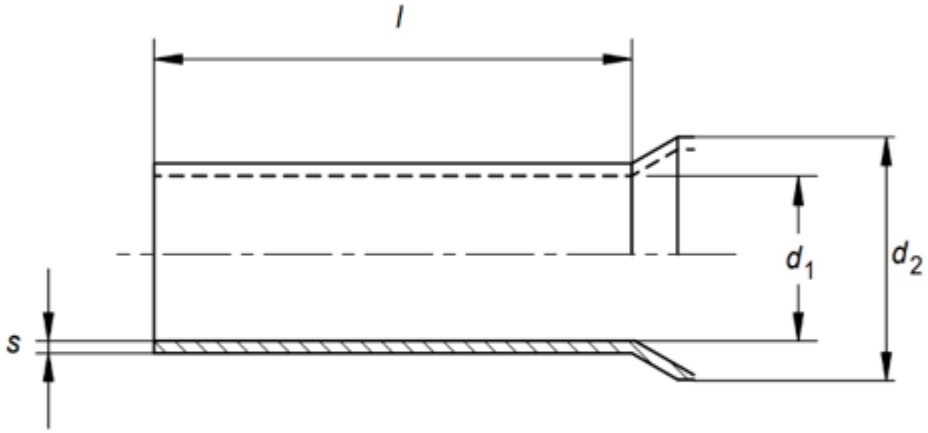


su0878c

BSR/UL 746C, Standard for Safety for Polymeric Materials - Use in Electrical Equipment Evaluations

1. Removal of Paragraph 57.2.4

PROPOSAL

Note from the TC Project Manager – This proposal does not include a revision of Paragraph 57.2.3. The inclusion of Paragraph 57.2.3 in this proposal is only for informational purposes.

57.2.3 Tensile or flexural strength and flammability tests are to be conducted on specimens no thicker than the corresponding application. The results of Tensile, Izod or Charpy Impact testing of standard specimens in the nominal 3 mm/4 mm (0.12 inch/0.16 inch) thickness can be considered representative of the testing of a reduced thickness provided the non-impact testing of the reduced thickness complies with the requirements of Table 25.1.

57.2.4 ~~Tensile or flexural strength tests are to be conducted on specimens no thicker than the corresponding application. The results of Tensile, Charpy or Izod Impact testing of standard specimens in the nominal 4 mm thickness can be considered representative of the testing of reduced thickness provided the non-impact testing of the reduced thickness complies with the requirements of Table 25.1.~~ *Deleted.*

UL 1699, Standard for Safety for Arc-Fault Circuit-Interrupters

PROPOSAL

15A Visual Indication

15A.1 A device that has tripped in accordance with the provisions of arcing fault interruption shall provide a visual indication that the trip was due to the arcing fault function. The visual indication for arcing fault interruption shall be different than visual indication for other causes of interruption.

BSR/UL 2079, Standard for Tests for Fire Resistance of Building Joint Systems

3. Head of Wall Joint Systems

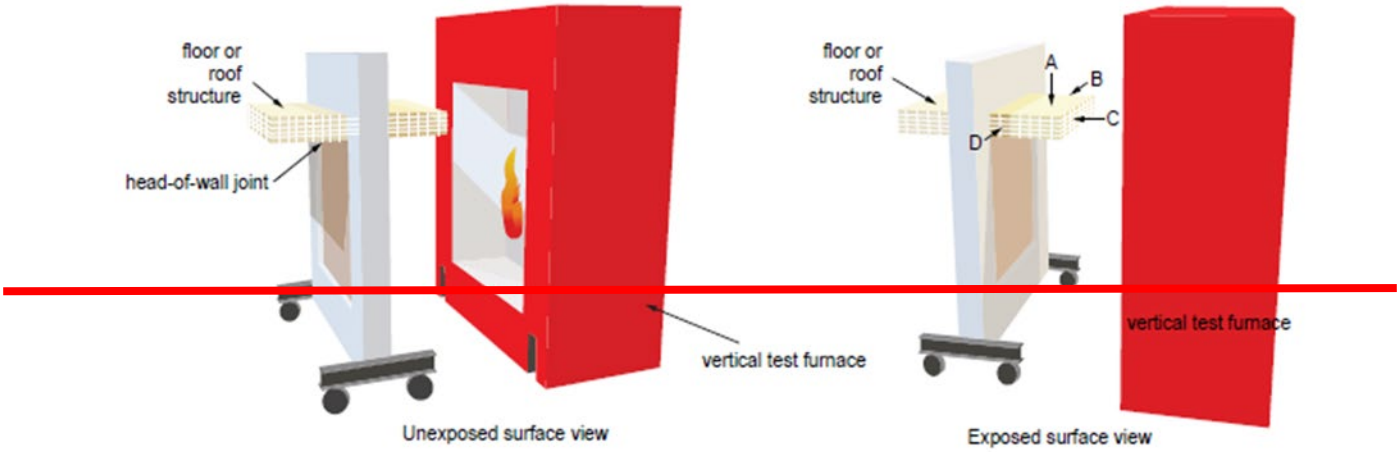
PROPOSAL

9 Head-of-Wall Joint Systems

9.1 Head-of-wall joint systems are designed for installation in vertical linear openings between wall and floor or roof structures. The floor or roof structure used for the test assembly is to extend a minimum of 12 inches (305 mm) beyond each surface of the wall structure. The top~~,~~ and sides ~~and front~~ faces of the portion of ~~a mass timber~~ the floor or roof structure extending beyond the surface of the wall structure into the furnace chamber may optionally be protected with Type X gypsum board (or equivalent), if the furnace design does not inherently prevent the exposure of the top and sides of the floor or roof structure. ~~with~~ When used, the number of layers of gypsum board shall represent~~ing~~ the proposed rating of the joint system.

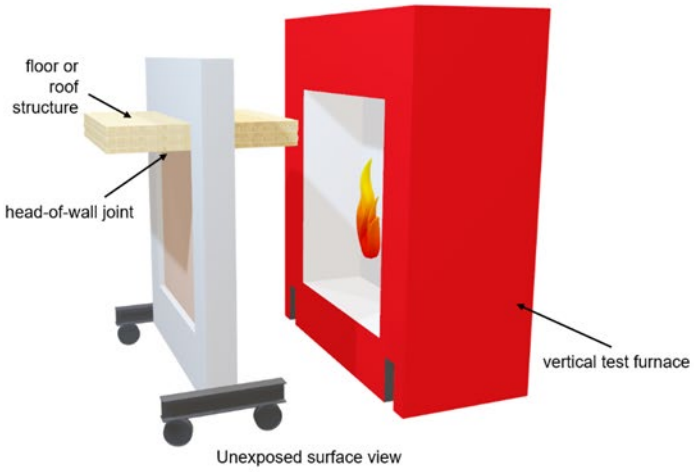
NOTE – When testing floor or roof assemblies to UL 263, the floor or roof specimen is only required to be exposed to fire from its underside (ceiling side).

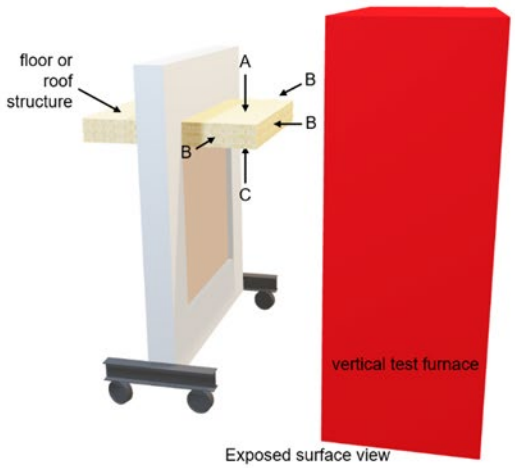
Figure 9.1
Head-of-wall joint system – Floor/roof structure extension into furnace – typical vertical test furnace setup



KEY:
A: top face
B: side face
C: front face
D: side face

su5011





A - top face
B - side face
C – underside (ceiling side)
~~D - side face~~

BSR/UL 6703, Standard for Safety for Connectors for Use in Photovoltaic Systems

1. Addition of Assembly Procedures for Field Assembled Connector Test Samples

PROPOSAL

9.1.2.8 The metal connection (such as crimping) between conductor and connector pin/socket is to be fully assembled (tightened to the specification) at ~~room~~ a temperature of 23 ±5°C (73.4 ±9°F). Polymeric material sealing and strain relief (such as a gland) is to be assembled and ~~finger tight~~ tightened by hand at ~~room~~ a temperature of 23 ±5°C (73.4 ±9°F), then the steps in 9.1.2.9 shall be applied.

Note: This purpose of this requirement is ~~that~~ to ~~investigate~~ evaluate the assembly temperature effect ~~is mainly~~ on polymeric materials used in connectors for sealing and strain relief, such as a gland.

2. Addition of a Cyclic Pull Test

PROPOSAL

3.6.1 ~~ONE-TIME~~SINGLE-USE CONNECTOR – A connector which cannot be plugged-in to make a connection or be unplugged ~~out~~ to make a disconnection. The only way to disconnect is to cut out or disengage and remove the whole connector and install a new one.

3.8 SPIRAL CONNECTOR – A type of connector which uses a helical or spiral shaped conductive tube to make a compression type termination to a wire or wires. A spiral connector is an example of a ~~one-time~~ single-use connector as defined in 3.6.1.

9.2.2 Strain Relief Test (single pole connector)

9.2.2.4 ~~If the internal connections cannot be disconnected or otherwise made ineffective, such as with a spiral connector which is a one-time-use connector,~~ After the test described in 9.2.2.~~2~~1 – 9.2.2.3 is complete, ~~shall be conducted without disconnecting the internal connection, and~~ then the Cyclic Pull Test, Section 9.4, shall be conducted.

9.4 Cyclic Pull Test

9.4.1 This is a test performed in ~~addition~~ after ~~to~~ the Strain Relief Test in 9.2.2, ~~if the connector's internal connections cannot be disconnected or otherwise made ineffective~~ to ensure the strain relief test force does not transfer to the internal electrical connection. See 9.2.2.4.

9.4.4 The test procedure includes the following:

a) Fix two wire ends of the mated connector to the test device, so that the force is applied between the wire conductors and the internal connection interface.

b) Loosen the cable glands on each end of the connector.

c) Apply an AC or DC current equal to the Standard for Wire Connectors, UL 486A-486B, Table 7 Test current for connectors intended for a single conductor, Column 3 Assigned maximum ampere rating.

d) Apply pulling force with following parameters:

1) Cycling rate shall not be quicker than 2 cycles per minute, where a cycle consists of "zero tension – pull – full tension – release – zero tension";

2) There are no changing rate requirements during pull force increase or decrease periods;

~~2)~~3)Zero tensile force period in each cycle shall not be greater than 5% of one complete cycle ~~time~~; and

~~3)~~4)Load force shall be 5% of UL 486A-486B, Table 27 Pullout test values.

e) Run a total of 10,000 cycles.

f) During the test, applied current and voltage drop shall be recorded with a uniform interval at least 10 data points per cycle.

g) Calculate the contact resistance through recorded current and voltage drop.

h) The initial current and voltage drop data point used for contact resistance calculation and comparison shall be taken once the connectors under test have reached a steady state temperature, i.e. no more than +/- 2° C variation in temperature for no less than 20 cycles interval. The steady state temperature status shall be reached within the first 100 cycles.

12.2.1 The instructions shall include the following in addition to any other information required by this standard:

NOTE from TC Project Manager: The entire contents of 12.2.1 are not provided below. Please note the only proposed change is the addition of item (d)(10).

d) The following technical information:

10) For a ~~one-time~~ single-use connector, a procedure and warning for safely making the connections or removing the connections, such as to change a module from the string, shall be provided because it may involve touching live parts.