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# Project Initiation Notification System (PINS)

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

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. 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 affected interests wishing to receive more information or to submit comments are requested to contact the standards developer directly within 30 days of the publication of this announcement.

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## **AGMA (American Gear Manufacturers Association)**

1001 N Fairfax Street, 5th Floor, Alexandria, VA 22314-1587 [www.agma.org](http://www.agma.org)  
 Contact: Amir Aboutaleb; [tech@agma.org](mailto:tech@agma.org)

### ***New National Adoption***

BSR/AGMA ISO 1328-2-AXX-202x, Cylindrical gears - ISO system of flank tolerance classification - Part 2: Definitions and allowable values of double flank radial composite deviations (identical national adoption of ISO 1328-2:2020)

Stakeholders: Manufacturers, inspectors, and users of gears

Project Need: To replace similar current national standard

Scope: This document establishes a gear-tooth classification system relevant to double-flank radial composite deviations of individual cylindrical involute gears and sector gears. It specifies the appropriate definitions of gear tooth deviations, the structure of the gear tooth flank classification system, and the allowable values of the gear tooth deviations. It provides formulae to calculate tolerances for individual product gears when mated in double flank contact with a master gear.

## **AMCA (Air Movement and Control Association)**

30 West University Drive, Arlington Heights, IL 60004-1893 [www.amca.org](http://www.amca.org)  
 Contact: Shruti Kohli-Bhargava; [shrutik@amca.org](mailto:shrutik@amca.org)

### ***Revision***

BSR/AMCA Standard 301-202x, Methods for Calculating Fan Sound Ratings from Laboratory Test Data (revision of ANSI/AMCA Standard 301-2014)

Stakeholders: Fan manufacturers, building designers, engineers, acoustic consultants

Project Need: AMCA 301 is up for its 5-year review as stated in our Procedures for the Development of AMCA Standards and Publications.

Scope: This standard establishes standard methods for calculating fan sound ratings from laboratory test data. This document applies to any fan, if a test standard exists, to measure its fan sound power levels.

**ASC X9 (Accredited Standards Committee X9, Incorporated)**

275 West Street, Suite 107, Annapolis, MD 21401 [www.x9.org](http://www.x9.org)

Contact: Ambria Frazier; [Ambria.frazier@x9.org](mailto:Ambria.frazier@x9.org)

**Revision**

BSR X9.100-10-202x, Paper for MICR Documents (revision of ANSI X9.100-10-2016)

Stakeholders: Check manufacturers, ink manufacturers, financial institutions, processors, MICR-related hardware and software vendors

Project Need: This is a core standard describing paper characteristics for MICR documents. cursory review has indicated that we need to clarify perceived issues for paper brightness and factors to consider in manufacturing paper stock that might affect brightness that can impact image processing.

Scope: This standard establishes paper specifications for the MICR documents that are used in the U.S. Payments System. While checks, substitute checks (IRDs), and deposit tickets are the primary documents considered in these specifications, users of MICR/OCR E-13B font readers will be well served by applying these specifications to internal documents, when intended for use in reader/sorters.

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 [www.asme.org](http://www.asme.org)

Contact: Terrell Henry; [ansibox@asme.org](mailto:ansibox@asme.org)

**Revision**

BSR/ASME HST-1-202x, Performance Standard for Electric Chain Hoists (revision of ANSI/ASME HST-1-2017)

Stakeholders: Construction, designers, military/government, consumer, shipping, hoist operators, manufacturers

Project Need: To provide updated requirements for the ASME HST-1 Standard.

Scope: This Standard establishes performance requirements for electric chain hoists for vertical lifting service involving material handling of freely suspended (unguided) loads using load chain of the roller or welded link types with one of the following types of suspension: (1) lug, (2) hook or clevis, and (3) trolley.

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

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**Revision**

BSR/ASME HST-3-202x, Performance Standard for Lever Hoists (revision of ANSI/ASME HST-3-2017)

Stakeholders: manufacturers, construction, hoist operators, designers

Project Need: To provide updated requirements for the HST-3 Standard.

Scope: This Standard establishes performance requirements for chain, wire rope, and web strap lever hoists for lifting, pulling, and tensioning applications. The specifications and information in this Standard apply to lever hoists of the following types: (1) ratchet-and-pawl operation with (-a) roller-type load-chain lifting medium; (-b) welded-link-type load-chain lifting medium; (-c) web-strap-type lifting medium; and (-d) wire-rope-type lifting medium; (2) friction-brake operation with (-a) roller-type load chain; (-b) welded-link-type load chain; (-c) web-strap-type lifting medium; and (-d) wire-rope-type lifting medium.

**BHMA (Builders Hardware Manufacturers Association)**

355 Lexington Avenue, 15th Floor, New York, NY 10017-6603 [www.buildershardware.com](http://www.buildershardware.com)

Contact: Karen Bishop; [Kbishop@Kellencompany.com](mailto:Kbishop@Kellencompany.com)

**Revision**

BSR/BHMA A156.20-202x, Standard for Strap and Tee Hinges, and Hasps (revision of ANSI/BHMA A156.20-2017)

Stakeholders: Consumers, Door and Hardware Manufacturers, Building and Construction

Project Need: Adding additional product functions/ types and test methods and other information.

Scope: This Standard establishes requirements for strap hinges, tee hinges, and hasps, and includes performance tests covering operational and strength criteria.

**BHMA (Builders Hardware Manufacturers Association)**

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**Revision**

BSR/BHMA A156.26-202x, Standard for Continuous Hinges (revision of ANSI/BHMA A156.26-2017)

Stakeholders: Consumers, Door and Hardware Manufacturers, Building and Construction

Project Need: Adding additional product functions/ types and test methods and other information

Scope: This Standard establishes requirements for architectural continuous hinges used in building construction.

Cycle, abuse, overload, vertical wear, and strength tests are included.

**FM (FM Approvals)**

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**New Standard**

BSR/FM 1616-202x, Underground Pipe Rehabilitation Systems (new standard)

Stakeholders: Any municipality or commercial business that has underground piping that is need of repair to address leakage, corrosion or water quality issues. These areas are likely, although not exclusively, to be found in older industrial areas/cities. Stakeholders (beneficiaries) would include the general public, municipal water works, commercial building owners and insurance companies.

Project Need: Underground piping systems are continually subject to corrosion as well as environmental and operational stresses from soil pressure, traffic loading, frost loads, thermal loading, and operational pressure. The resulting deterioration reduces the structural integrity and increases the risk of failure which may lead to loss of water supply for municipal or industry use. When compared to conventional open trench replacement methods, pipe rehabilitation methods are often less expensive as well as less disruptive to the surrounding environment. Although there are numerous industry (ASTM and AWWA) guidelines and standards available there is no ANSI standard. This standard would met that need.

Scope: The standard states certification criteria for rehabilitation systems for use in underground fire service water mains. Rehabilitation of existing underground piping systems is a means to extend the useful life of existing mains by increasing the hydraulic capacity of a piping system as well as providing structural improvement to reduce leakage, lessen the risk of property damage, and improve reliability. Non-structural pipe-lining systems are not addressed in the standard. Because of the possibility of connection to potable water systems, the pipe rehabilitation systems addressed in the standard must be suitable for potable water service as listed for this service by NSF International (NSF).

**HSI (Healthcare Standards Institute)**

1452 Hughes Road, Suite 200, Grapevine, TX 76051 [www.hsi.health/](http://www.hsi.health/)

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***New National Adoption***

BSR/HSI 002-202x, Pandemic response - Self-symptom checker (identical national adoption of ISO/NP 6028)

Stakeholders: Industry and commerce large industry: Management of a pandemic at entry points to a nation Industry and commerce SMEs: Improved quality of care for infected patients Government: Better prepared to manage pandemics Consumers: Faster screening of incoming passengers Labor: Faster screening of incoming passengers Academic and research bodies: New opportunities for research and development of pandemics-related applications Standards application businesses: Expanded areas for application of standard Non-governmental organizations: Better preparedness for pandemic situations

Project Need: On 3rd of March 2020, the WHO declared Covid-19 as a pandemic which has infected as of July 2020 more than 13 million people worldwide. It has devastated existing medical infrastructures in an alarming number of countries, as well as induced massive unemployment shaking the underpinnings of social and economic stability in the infected countries. The lack of proven treatment and vaccines for Covid-19 makes efficient and pre-emptive control of the disease a top priority. While clinical trials for vaccines are now under way; it may take longer than countries would like to until the safety and effectiveness of the vaccines are ensured, not to mention the additional time required for them to clear regulatory approval. A self-symptom checker for infectious disease such as Covid-19 connects individuals with potential symptoms to national public health measures, such as instructions for accessing screening test sites and for CDC (Central Disease Control) consultation for follow-up management. The app acts as a frontline defense to isolate and quarantine infected individuals at national entry points such as airports and seaports. This Standard enables our nation to build functional mobile apps for individuals to monitor potential infection and for health authorities to respond as quickly as possible to those who may have been infected. The Standard is designed to encourage wide and fast adoption and synergy between stakeholders including the public, health organizations and gover

Scope: This Standard specifies functional requirements for a mobile app that provides self-initiated symptom checking functionalities for an early screening for Covid-19. The functionalities of the app include, for instance, self-registration of incoming passengers at entry points such as airports; symptom checking for Covid-19 by answering a series of symptom-related questions; and alerts for screening tests and consultation with resident health officials, if required. When individuals are put in quarantine, they are daily instructed to check their symptoms through the app until the quarantine is lifted. While primarily intended for screening at entry points, the app can be used daily by citizens for self-monitoring of Covid-19 symptoms.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 003-202x, Standard Protocol of Drive-Through Screening Station for Infectious Disease Control (identical national adoption of ISO/NP 5258)

Stakeholders: Industry and commerce large industry: Facilitate the deployment of fast and convenient IVDs for the purpose of using at COVID-19 Drive-through testing stations. Industry and commerce SMEs: Implementation procedure are easy and scalable. Government: Very effective solution for secure massive screening and mitigate the cross infection in infectious disease pandemic situation Consumers: Dramatically reduces the risk of cross-infection and provide fast and convenient tests Labor: Improved standard operating procedures for drive-through medicine Academic and research bodies: Provides insights and opportunities for advanced technology and process development (Point of Care Device) and the procedure compare to traditional testing processes Standards applicator businesses: Improved International standard operating procedures for Drive- through Medicine Non-governmental organizations: Better preparedness for infectious disease outbreak and pandemic Other: Better preparedness and responses for infectious disease outbreak and pandemic

Project Need: Epidemiological purposes: 1) identify people who are infected (so that they can be isolated or treated), 2) to reassure people who are not infected and to educate them about precautions, 3) contribute data to epidemic control systems, 4) etc. COVID-19 virus has spread with alarming speed through all around world. However, hospital-based sample tests are not well suited timely and safer testing of the disease, because of the complicated quarantine measures and potential risk of cross-infection among patients and healthcare professionals. One of the main challenges of healthcare organization and governments is to develop fast, safe, easy-to-implement, and convenient test procedure. Korea has initiated the introduction of COVID-19 Drive-through screening stations and has been running the system very successfully. Specimens are collected via Drive-through and mobile facilities - Safer and faster testing for the virus at the Drive-through than in hospitals or health clinics COVID-19 Drive-through screening sites open up in many countries; US, EU countries and Japan are employing the COVID-19 Drive-through testing model in an effort to expedite the process and to limit exposure for health care professionals. This document will describe the concept, design, business process and operation details of standard operating procedure of Drive-through screening station for infectious disease outbreak control and management.

Scope: - Protocol of Drive-through screening station;

- Basic concept and components of Drive-through screening station;

- Physical design and layer of Drive-through screening station;

- Applied quarantine method for healthcare workers who involved each including sample collection;

- Messaging and staffing of Drive-through screening station;

- Considerations and lessons learned.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 004-202x, Standard protocols of walk-through screening stations for infectious disease control (identical national adoption of ISO/NP 5472)

Stakeholders: Industry and commerce large industry: Facilitate the deployment of fast and safer screening station in infectious disease pandemic. Industry and commerce SMEs: Implementation procedure are clear, easy and scalable. Government: Very effective solution for secure massive screening and mitigate the cross infection in infectious disease pandemic situation. Consumers: Dramatically reduces the risk of cross-infection and provide fast and convenient tests. Labor: Improved standard procedures for Walk-through screening station. Academic and research bodies: Provides insights and opportunities for advanced technology and process development and the procedure compare to traditional testing processes. Standards application businesses: Planning and operating of hospital-based screening station in infectious disease pandemic crisis. Non-governmental organizations: Mitigate the risk of infection and better preparedness for infectious disease outbreak and pandemic. Other: Better preparedness and responses for infectious disease outbreak and pandemic.

Project Need: Rapid diagnostic tests for early detection of Coronavirus is one of the most important priority in a pandemic. Other countries have first developed and launched a 'Walk-through' testing station which provides safe, fast, and convenient sample collection compare to traditional testing process. Walk-through (WT) screening facility is a screening station where a patient can go through the screening process of medical interview, temperature check, and specimen collection. This not only minimizes both the pressure on the hospitals and the risk of transmission by keeping potential patients out of hospital waiting rooms, but also reduces time by eliminating the need for the disinfection measures required for sample-taking in and out of hospital. There are currently types of walk-through testing methods, namely, 1) non-pressure (open walk-thru), 2) negative pressure, 3) positive pressure, and 4) adaptable pressure type. The open walk-through screening station is used mainly for immigration offices, such as airports and ports. In asymptomatic cases, diagnostic tests are performed in an open-space screening clinic. In symptomatic cases, namely, patients who have a fever (over 37.5 ° C) or respiratory symptoms, tests are performed in a separated space (i.e., quarantine laboratory, quarantine facility). A WT screening station using mobile or fixed negative pressure booths, patient go inside while healthcare workers stay outside. The station requires smaller area for testing booths an

Scope: - Basic concept and components of walk-through screening station;

- Physical design of walk-through screening station;

- Applied quarantine method for the station and healthcare workers who involved; and

- Considerations and lessons learned.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 005-202x, Health Care Quality Management System Standard (identical national adoption of ISO/NP 5735)

Stakeholders: Industry and commerce large industry: More efficient and effective use of international donor funds. A means to provide documented evidence that money is being used for quality improvements. Certification/compliance can serve as a factor in making funding decisions (allocating loans, grants, etc.). If costs are decreased due to heightened quality standards, the organization (health department, ministry of health) will have more capital to purchase equipment and hire staff. Industry and commerce SMEs: More efficient and effective use of international donor funds. A means to provide documented evidence that money is being used for quality improvements. Certification/compliance can serve as a factor in making funding decisions (allocating loans, grants, etc.). If costs are decreased due to heightened quality standards, the organization (health department, ministry of health) will have more capital to purchase equipment and hire staff. Government: Provides governments a way of showing that health system spending is effective. Reduces wasted resources = decreased government spending. Improved health system quality results in lower mortality and morbidity, thus decreasing government burden, and increasing ability of citizens to be healthy and work. Improved health system quality means less people needing government assistance/disability. Governments will be able to show accountability and commitment to its citizens. Consumers: Consumers will have better access to care. Consume

Project Need: The purpose of the proposed project is to create a health quality systems standard that can be used by any organization, of any size, anywhere in the world, and with varied resources. The standard will lead to the creation and implementation of quality health systems based on the Plan, Do, Check, Act method of which leads to continuous improvement. The standard will provide an opportunity for organizations to show a commitment to quality, continuous improvement, communicate a quality policy along with goals and metrics, and collect data that supports and shows evidence to interested stakeholders. This will ultimately support the sharing of best practice across organizations and countries. The standard is justified on many levels, including increased population health, improved equity, increased economic prosperity, cost savings, ongoing education and training, and human dignity. The need is of the upmost importance, having a profound on individuals and economies. The need will continue and will increase as world population increases\* and humanity faces challenges such as global warming, epidemics, immigration, and civil unrest. The present COVID-19 pandemic has exposed the vulnerabilities of the global health care system, with differing standards being applied to a similar problem with vastly different outcomes. Beyond the clinical manifestations of COVID-19 disease, the administration of different health care facilities during the pandemic, varying from hospitals, public h

Scope: This standard specifies a series of quality measures used to establish high-quality health systems when an organization: (a) needs to demonstrate its ability to consistently provide non-clinical management standards that meet customer/patient, stakeholder, and applicable statutory and regulatory requirements; (b) aims to enhance customer/patient satisfaction through the effective application of the non-clinical standards, including processes for improvement of procurement, human resources, information management, stakeholder relations, and the assurance of conformity to customer/patient, and applicable statutory and regulatory requirements; and c) demonstrates its commitment to a health system that is effective, safe, equitable, resilient, and people-centered.



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***New National Adoption***

BSR/HSI 006-202x, Pandemic response - Residential Treatment Centers (identical national adoption of ISO/NP 5741)

Stakeholders: Industry and commerce large industry: Facilitate the donation, designing, designation and operation of RTC in infectious disease pandemic. Industry and commerce SMEs: Implementation procedure are clear and easy. Government: Highly effective solution for patient treatment with mild symptom and in infectious disease pandemic situation. Consumers: Dramatically reduces the risk of cross-infection and provide fast and safe isolation facility. Labor: Improved standard procedures for RTC. Academic and research bodies: Provides insights and opportunities for advanced technologies (using application) and process development and the procedure compare to traditional hospital-based treatment. Standards application businesses: Planning and operating of quasi-hospital infectious disease pandemic crisis. Non-governmental organizations: Mitigate the risk of infection and better preparedness for infectious disease outbreak and pandemic. Other: Better preparedness and responses for infectious disease outbreak and pandemic

Project Need: With the spread of COVID-19, the world is facing an unprecedented shortage of healthcare resources including hospital beds. To tackle the challenge in a pandemic, healthcare systems capacity and emergency preparedness need to be more flexible. To cope with the overflow of the patients and the number of exceeding the capacity of hospital beds, Korea was designed and implemented a new kind of isolation facility, Residential Treatment Centre (RTC). RTC is some other countries' government's new triage and treatment system. It is an isolation facility for the cases that were not identified and not diagnosed. It is a temporary quasi-hospital mostly for mild or asymptomatic confirmed cases who have been discharged from hospitals but find it difficult to get treatment at home. A patient is monitored by healthcare worker at least twice a day and immediately transfer to a hospital if the symptoms aggravate. If the symptoms improve, the patient will be released in accordance with criteria for lifting isolation. RTCs are supplied with medical staff, medical equipment, and individual relief kits (underwear, toiletries, masks, etc.). Central and local governments designate government-run facilities or lodgings as RTCs. Other countries were able to successfully flatten the curve on COVID-19 and RTC was one of the major measurements to mitigate the virus spread. Due to RTC, patients at higher risk group were immediately hospitalized. According to other countries' reports, when they impleme

Scope: - Fundamental principle and procedure of Residential Treatment Centre (RTC);

- Designation criteria of RTC;
- Admission criteria of RTC;
- Discharge criteria of RTC;
- Facility design, operation, and management details; and
- Sample form and formats for RTC.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 007-202x, Hand Hygiene Performance and Compliance (identical national adoption of ISO/NP 23447)

Stakeholders: Industry and commerce large industry: Reduce the incidence of HAIs. Improve the consistency of hand hygiene performance. Government: Provide hand hygiene monitoring data that can be reported as an outcome measurement. Consumers: Improve quality and safety of care. Academic and research bodies: Improve the ability to measure the impact of hand hygiene compliance on reducing HAIs. Standards application businesses: This will drive regulatory bodies to set hand hygiene requirements.

Project Need: Healthcare-associated infections (HAIs) affect hundreds of millions of hospital patients worldwide every year (Allegranzi B, 2011). In the United States alone, 1 in 25 acute care hospital patients will develop an HAI (Magill et al., 2014). According to the World Health Organization (WHO), the rate of HAIs globally is 1 in 10 patients. The burden of HAIs is several fold higher in low- and midresources countries compared to high-resourced countries. There is worldwide consensus on the pressing need to prevent HAIs and the spread of antibiotic resistant microorganisms. Hand hygiene is critical for preventing the spread of infection in hospitals. The primary route of transmission of HAIs is via contamination on healthcare personnel hands, which can be combatted by proper hand hygiene (Boyce & Pittet, 2002). Thus, proper hand hygiene products, technique and compliance are significantly important for reducing HAIs. Hand hygiene noncompliance is associated with significant attributable hospital costs (Cummings et al., 2010). A 2011 study by Zoabi et al. found that the cost of non-compliance to a U.S. hospital is as much as \$52 per missed hand hygiene event. For MRSA infections alone, they calculated that a 200-bed hospital incurs \$1,779,283 in annual expenses due to non-compliance. A 1.0% increase in hand hygiene compliance in this same hospital would result in a savings of about \$40,000 annually. The global market is worth about \$14.5 billion for 2015. A meta-analysis of hand hy

Scope: To set hand hygiene performance requirements and compliance standards.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 008-202x, Healthcare Administration - Vocabulary (identical national adoption of ISO 22886:2020 (E))

Stakeholders: Industry and commerce, government, consumers, labor and academic bodies: Common language will enhance communication and understanding among stakeholders.

Project Need: (a) To help facilitate a common understanding of fundamental terminology in healthcare management, subject to country-specific compliance-related definitions. The terminology in this standard does not replace formal definitions defined by country-specific applicable legal and organizational requirements; (b) To maintain consistency in terminology for any purpose. For example, if the term “patient admission” is used, all parties utilizing the term would understand and use the intended meaning; (c) To identify and define healthcare management terminology utilized in ISO/TC 304 Healthcare organization management (HOM) workgroups during standard development processes; (d) To describe historical context, if applicable, and current use of applicable healthcare management terminology for clarification and development of standardized terms that can be understood and used by standards’ users from multiple cultures and countries.

Scope: This Domestic Standard describes fundamental terms and definitions used in the field of healthcare administration. It is an external, published document, which is updated on a recurring basis. It utilizes existing materials and new terminology, to be added on a regular basis.

**HSI (Healthcare Standards Institute)**

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***New National Adoption***

BSR/HSI 001-202x, Patient Centered Staffing (identical national adoption of ISO/FDIS 22956)

Stakeholders: Medical, staffing companies, state healthcare department.

Project Need: According to the World Health Organization, on current trends, by 2030, parts of the world may encounter substantial misalignment between the number of health workers required to provide essential services, the availability of healthcare professionals, and the countries' employment capacity. It is imperative that stakeholders, including management, within healthcare systems move beyond traditional practices and explore innovative global patient-centered staffing models/methodologies to maximize patient safety and increase cost efficiencies. Indeed, patient-centeredness has emerged as an important national issue, and was identified by the Institute of Medicine of the United States National Academies of Science as one of six attributes of healthcare quality along with safety, timeliness, effectiveness, efficiency, and equity. HSI proposes the establishment of management practice standards to address "business" operations within healthcare entities, specifically, to improve their capacity to manage patient-centered staffing to ensure better patient outcomes. Through the development of select management standards related to patient-centered staffing in healthcare organization settings, process criteria can be developed to heighten awareness and strengthen new models of care across all service areas and settings. These processes include, for example: Decisions regarding healthcare workforce planning, resource allocation and management, and rationalization regarding the distribution.

Scope: Project is limited to the development of comparable healthcare administration measures and analytics which will describe the performance and the outcomes of the management operations of healthcare entities. It will include descriptions of the metrics, their relevance to the stakeholders, and the methodology (algorithm) for calculating these measures.

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

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***New Standard***

BSR/IAPMO Z124.10-202x, Water Closet and Urinal Partitions (new standard)

Stakeholders: Manufacturers, users, inspectors, distributors, designers, and contractors.

Project Need: Needed for testing and certification purposes.

Scope: This Standard covers urinal and water closet partitions and specifies requirements for materials, construction, performance testing, and markings.

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

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***Revision***

BSR/SCTE 35-202x, Digital Program Insertion Cueing Message (revision of ANSI/SCTE 35-2019a)

Stakeholders: Cable Telecommunications industry.

Project Need: Update current technology.

Scope: This standard supports delivery of events, frame accurate or non-frame accurate, and associated descriptive data in MPEG-2 transport streams, MPEG-DASH, and HLS. This standard supports the splicing of content (MPEG-2 transport streams, MPEG-DASH, etc.) for the purpose of Digital Program Insertion, which includes Advertisement insertion and insertion of other content types. This standard defines an in-stream messaging mechanism to signal splicing and insertion opportunities.

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

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**Revision**

BSR/SCTE 250-202x, Real-Time Event Signaling and Management API (revision of ANSI/SCTE 250-2020)

Stakeholders: Cable Telecommunications industry.

Project Need: Update current technology.

Scope: This document details the interfaces between a Signal Acquisition System (SAS) and a Signal Decision System (SDS) in order to support signal and manifest processing. The APIs support synchronous signal processing, asynchronous signal processing, and processing of both linear and file-based content.

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

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**New Standard**

BSR/SCTE NOS 207-202x, Requirements for Power Sensing in Cable and Utility Networks (new standard)

Stakeholders: Cable Telecommunications industry.

Project Need: Create new standard.

Scope: The scope of the standard covers two distinct use cases:

- (1) Cable TV Hybrid Fiber-Coax (HFC) power quality needs to be monitored for anomaly “glitches” known to have caused the reboot of some newer digital HFC actives which interrupted voice, video, and data services for up to 15 minutes;
- (2) Utility secondary distribution grid power quality needs to be monitored for anomaly “glitches” known to cause wildfires and shorten the lifespan of cable TV infrastructure elements, Customer Premises Equipment (CPE), and consumer appliances.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

**New Standard**

BSR/TAPPI T 227 om-202x, Freeness of pulp (Canadian standard method) (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: The freeness of pulp is designed to give a measure of the rate at which a dilute suspension of pulp (3 g of pulp in 1 L of water) may be drained. The freeness, or drainage rate (see TAPPI T 221 “Drainage Time of Pulp”), has been shown to be related to the surface conditions and swelling of the fibers. Besides these factors, the result is dependent also on conditions under which the test is carried out, such as stock preparation, temperature, and water quality. The applicability of this method to all types of pulps has not been determined.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

***New Standard***

BSR/TAPPI T 278 sp-202x, Pulp screening (Valley-type screening device) (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard

Scope: This practice provides a laboratory screening procedure for pulps taken directly from a blow pit or discharged from digesters, eliminating time lapse, and assuring uniform pulp properties. This practice describes a method for separating debris from virgin or recycled pulps.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

***New Standard***

BSR/TAPPI T 413 om-202x, Ash in wood, pulp, paper and paperboard: Combustion at 900°C (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: This method for determination of ash can be applied to all types of wood, pulp, paper, and paperboard.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

***New Standard***

BSR/TAPPI T 448 om-202x, Water vapor transmission rate of paper and paperboard at 23 degrees C and 50% RH (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: This method provides for the gravimetric determination of the water vapor transmission rate (WVTR) of sheet materials at 23°C with an atmosphere of 50% RH on one side and a desiccant on the other.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

***New Standard***

BSR/TAPPI T 581 om-202x, Dry tensile properties of paper towel and tissue products (using constant rate of elongation apparatus) (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: This method describes the procedure for determining dry tensile strength, peak stretch, and tensile energy absorption of paper towel and tissue products using a constant-rate-of-elongation apparatus.

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 [www.tappi.org](http://www.tappi.org)

Contact: Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

***New Standard***

BSR/TAPPI T 827 om-202x, Box blank dimensioning (new standard)

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

Project Need: To conduct required five-year review of an existing TAPPI Standard.

Scope: This method can be used to determine the score-to-score dimensions of a box blank. Knowing box blank dimensions is an excellent way of determining box size, if scoring allowances are known. Accurate dimensions typically are a key specification in market transactions, and are required for understanding and modeling box performance. This method may be used for solid or corrugated fiberboard containers including all box designs, both diecut and scored and slotted.

# 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](mailto:psa@ansi.org)

\* Standard for consumer products

## Comment Deadline: February 28, 2021

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE/IES Addendum u to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This addendum proposes changes to Section 11 to specify that an air economizer is to be used for modeling the budget HVAC system. Additional changes are proposed to expand instructions for determining equipment capacities when thermal zones are combined through the simplified modeling process.

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

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### Addenda

BSR/ASHRAE/IES Addendum v to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

The proposed changes specify which documentation projects following Section 11 and Appendix G must provide to the rating authority or jurisdiction, and which should be available by request.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

## Comment Deadline: February 28, 2021

### ASSP (Safety) (American Society of Safety Professionals)

520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3475 w: [www.assp.org](http://www.assp.org)

#### Revision

BSR/ASSP Z359.14-202x, Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems (revision and redesignation of ANSI/ASSE Z359.14-2014)

This standard establishes requirements for the performance, design, qualification testing, markings and instructions, inspections, maintenance and storage, and removal from service of self-retracting devices (SRDs) including self-retracting lanyards (SRLs), self-retracting lanyards with integral rescue capability (SRL-Rs), and self-retracting lanyards, personal (SRL-Ps). This standard establishes requirements for SRDs intended for use in personal fall arrest or rescue systems for authorized persons within the capacity range of 130 to 310 pounds (59 to 141kg).

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Lauren Bauerschmidt; [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 418-6660 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 40-202x (i42r1), Residential Wastewater Treatment Systems (revision of ANSI/NSF 40-2019)

This wastewater standard contains minimum requirements for residential wastewater treatment systems having rated treatment capacities between 1514 L/day (400 gal/day) and 5678 L/day (1500 gal/day). Management methods for the treated effluent discharged from residential wastewater treatment systems are not addressed by this Standard.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Jason Snider; [jsnider@nsf.org](mailto:jsnider@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 49-202x (i159r3), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2019)

This Standard applies to Class II (laminar flow) biosafety cabinetry designed to minimize hazards inherent in work with agents assigned to biosafety levels 1, 2, 3, or 4. It also defines the tests that shall be passed by such cabinetry to meet this Standard. This Standard includes basic requirements for the design, construction, and performance of biosafety cabinets (BSCs) that are intended to provide personnel, product, and environmental protection; reliable operation; durability and structural stability; cleanability; limitations on noise level; illumination; vibration; and motor / blower performance.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Allan Rose; [arose@nsf.org](mailto:arose@nsf.org)

### NSF (NSF International)

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-5643 w: [www.nsf.org](http://www.nsf.org)

#### Revision

BSR/NSF 55-202x (i53r1), Ultraviolet Microbiological Water Treatment Systems (revision of ANSI/NSF 55-2019)

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

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Monica Leslie; [mleslie@nsf.org](mailto:mleslie@nsf.org)



## Comment Deadline: February 28, 2021

### UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-1053 w: <https://ul.org/>

#### Revision

BSR/UL 360-202X, Standard for Liquid-Tight Flexible Metal Conduit (revision of ANSI/UL 360-2020)

This proposal covers: (1) Marking requirements for suitability for use in swimming pool corrosive environments.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

47173 Benicia Street, Fremont, CA 94538 p: (510) 319-4271 w: <https://ul.org/>

#### Revision

BSR/UL 746B-202x, Standard for Safety for Polymeric Materials - Long Term Property Evaluations (revision of ANSI/UL 746B-2020)

This proposal covers new requirements for Temperature Index TI based on IEC 60216-3 for UL 746B.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 p: (847) 664-2850 w: <https://ul.org/>

#### Revision

BSR/UL 845-202x, Standard for Safety for Motor Control Centers (revision of ANSI/UL 845-2018)

Recirculation of the following topics: (1) The Proposed Sixth Edition of the Standard for Safety for Motor Control Centers, UL 845; (2) Temperature Terminations.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 p: (847) 664-2023 w: <https://ul.org/>

#### Revision

BSR/UL 982-202x, Standard for Safety for Motor-Operated Household Food Preparing Machines (revision of ANSI/UL 982-2020)

This proposal for UL 982 covers: (8) Blender container position switch in place of marking of 72.3.3.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-1479 w: <https://ul.org/>

#### Revision

BSR/UL 1004-9-202x, Standard for Safety for Form Wound and Medium Voltage Rotating Electrical Machines (revision of ANSI/UL 1004-9-2016)

This recirculation proposal provides revisions to the UL 1004-9 proposal dated 10-2-20.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

## Comment Deadline: February 28, 2021

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 p: (847) 664-2023 w: <https://ul.org/>

#### **Revision**

BSR/UL 1026-202x, Standard for Safety for Electric Household Cooking Appliances (revision of ANSI/UL 1026-2019)

This proposal for UL 1026 covers: (1) Revisions to address touch control.

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-0954 w: <https://ul.org/>

#### **Revision**

BSR/UL 1574-202x, Standard for Safety for Track Lighting Systems (revision of ANSI/UL 1574-2020)

The following change to the third edition of UL 1574, Standard for Safety for Track Lighting Systems is being proposed:

Revision to the Strength of Adaptor Test

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

## Comment Deadline: March 15, 2021

### AAFS (American Academy of Forensic Sciences)

410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: [www.aafs.org](http://www.aafs.org)

#### **New Standard**

BSR/ASB Std 054-202x, Standard for a Quality Control Program in Forensic Toxicology Laboratories (new standard)

This document establishes minimum requirements for quality control practices in forensic toxicology laboratories. The document explains the importance of a quality control program, how to select and care for materials used to prepare quality control samples, proper preparation and use of calibrator and control samples, and requirements for their use in different types of assays. The document also provides direction for the review and monitoring of quality control data in forensic toxicology laboratories. This standard applies to laboratories performing forensic toxicological analysis in the following sub-disciplines: postmortem forensic toxicology, human performance toxicology (e.g., drug-facilitated crimes and driving-under-the-influence of alcohol or drugs), non-regulated employment drug testing, court-ordered toxicology (e.g., probation and parole, drug courts, child services), and general forensic toxicology (non-lethal poisonings or intoxications). It is not intended for the area of breath alcohol toxicology.

\*Please note that comments on a re-circulation will only be accepted on revised sections of a document, comments made to text not revised from the original public comment period will not be accepted.

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: <http://www.asbstandardsboard.org/notice-of-standard-development-and-coordination/>.

Order from: Document will be provided electronically on AAFS Standards Board website ([www.asbstandardsboard.org](http://www.asbstandardsboard.org)) free of charge.

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

## Comment Deadline: March 15, 2021

### **AAFS (American Academy of Forensic Sciences)**

410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: [www.aafs.org](http://www.aafs.org)

#### ***New Standard***

BSR/ASB Std 152-202x, Standard for Minimum Content Requirements of Forensic Toxicology Procedures (new standard)

This document provides requirements for the minimum content of technical and analytical procedures in forensic toxicology. This standard applies to laboratories performing forensic toxicological analysis in the following sub-disciplines: postmortem forensic toxicology, human performance toxicology (e.g., drug-facilitated crimes and driving-under-the-influence of alcohol or drugs), non-regulated employment drug testing, court-ordered toxicology (e.g., probation and parole, drug courts, child services, breath alcohol), and general forensic toxicology (non-lethal poisonings or intoxications).

Single copy price: Free

Obtain an electronic copy from: Document and comments template can be viewed on the AAFS Standards Board website at: <http://www.asbstandardsboard.org/notice-of-standard-development-and-coordination/>

Order from: Document will be provided electronically on AAFS Standards Board website ([www.asbstandardsboard.org](http://www.asbstandardsboard.org)) free of charge.

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

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

351 N. Williamson Boulevard, Daytona Beach, FL 32114 p: 571-289-7402 w: [www.apcointl.org](http://www.apcointl.org)

#### ***Revision***

BSR/APCO/TMA 2.101.3-202x, Alarm Monitoring Company to Emergency Communications Center (ECC) Computer Aided Dispatch (CAD) Automated Secure Alarm Protocol (ASAP) (revision and redesignation of ANSI/APCO/CSAA 2.101.2-2014)

This standard provides the technical documentation for creating a data exchange to transmit information between an Alarm Monitoring Company and an Emergency Communications Center (ECC). The three primary uses include: (1) Initial notification of an alarm event by an alarm monitoring company to an ECC; (2) Update of status by the ECC's CAD system to the alarm monitoring company; and (3) Bi-directional update of other events between an alarm monitoring company and an ECC. The standard also includes case examples and best practices for user agencies and organizations. An emphasis on address verification/synchronization between the alarm companies and the ECCs will be included.

Single copy price: Free

Obtain an electronic copy from: <https://www.apcointl.org/standards/standards-call-to-action/>

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

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

2950 Niles Road, Saint Joseph, MI 49085 p: (269) 932-7015 w: <https://www.asabe.org/>

#### ***Reaffirmation***

BSR/ASABE/ISO 14269-1-2006 (R202x), Tractors and self-propelled machines for agriculture and forestry - Operator enclosure environment - Part 1: Vocabulary (reaffirm a national adoption ANSI/ASABE/ISO 14269-1-2006 (R2017))

ASABE/ISO 14269-1 specifies test methods and criteria for the evaluation of the operator enclosure in agricultural and forestry tractors (agricultural tractors used in forestry applications), and self-propelled agricultural machines. This part of ISO 14269 gives terms and definitions used in other parts of ISO 14269.

Single copy price: \$4.00

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

Order from: Carla VanGilder; [vangilder@asabe.org](mailto:vangilder@asabe.org)

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

## Comment Deadline: March 15, 2021

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

2950 Niles Road, Saint Joseph, MI 49085 p: (269) 932-7015 w: <https://www.asabe.org/>

#### ***Reaffirmation***

BSR/ASABE/ISO 14269-4-2006 (R202x), Tractors and self-propelled machines for agriculture and forestry - Operator enclosure environment - Part 4: Air filter element test method (reaffirm a national adoption ANSI/ASABE/ISO 14269-4-2006 (R2017))

ASABE/ISO 14269-4 specifies a uniform test method for determining performance levels of operator-enclosure panel-type air filters. It is applicable to tractors and self-propelled machines for agriculture and forestry when equipped with an operator enclosure with a ventilation system.

Single copy price: \$4.00

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

Order from: Carla VanGilder; [vangilder@asabe.org](mailto:vangilder@asabe.org)

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

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

2950 Niles Road, Saint Joseph, MI 49085 p: (269) 932-7015 w: <https://www.asabe.org/>

#### ***Reaffirmation***

BSR/ASABE/ISO 14269-5-2006 (R202x), Tractors and self-propelled machines for agriculture and forestry - Operator enclosure environment - Part 5: Pressurization system test method (reaffirm a national adoption ANSI/ASABE/ISO 14269-5-2006 (R2017))

ASABE/ISO 14269-5 specifies a test procedure which will provide for uniform measurement of the pressurization inside an operator enclosure of tractors and self-propelled machines for agriculture and forestry when equipped with a ventilation system.

Single copy price: \$4.00

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

Order from: Carla VanGilder; [vangilder@asabe.org](mailto:vangilder@asabe.org)

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

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

1791 Tullie Circle, NE, Atlanta, GA 30329-2305 p: (404) 636-8400 w: [www.ashrae.org](http://www.ashrae.org)

#### ***Addenda***

BSR/ASHRAE/IES Addendum y to BSR/ASHRAE/IES Standard 90.1-202x, Energy Standard for Buildings Except Low-Rise Residential Buildings (addenda to ANSI/ASHRAE/IES Standard 90.1-2019)

This proposed addendum revises Table 6.8.1-16, Heat Pump and Heat Recovery Chiller Packages Minimum Efficiency Requirements, to provide clarification on compliance and to reflect the latest (2020) publications of AHRI 550/590 (IP) and AHRI 551/591 (SI).

Single copy price: \$35.00

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

## Comment Deadline: March 15, 2021

### ASME (American Society of Mechanical Engineers)

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

#### Revision

BSR/ASME A120.1-202x, Safety Requirements for Powered Platforms and Traveling Ladders and Gantries for Building Maintenance (revision of ANSI/ASME A120.1-2014)

This Standard establishes safety requirements for powered platforms (scaffolds) for buildings where window cleaning and related services are accomplished by means of suspended equipment at heights in excess of 35 ft (11 m) above a safe surface (e.g., grade, street, floor, or roof level). Additionally, this Standard establishes safety requirements for permanent traveling ladders and gantries (TLG). It pertains to either permanently installed or transportable equipment meeting the requirements of this Standard. Powered platforms and TLGs may be used or operated by one or more persons engaged in services such as normal building maintenance. The equipment may also be used for tasks such as caulking, metal polishing, reglazing, or other building repairs. This Standard does not apply to other suspended powered platforms used for remedial renovations or modifications to buildings. The safe use of these scaffolds is included in ANSI A10.8-2001, Safety Requirements for Scaffolding. This Standard does not relate to any service performed by persons supported by equipment covered by any of the ANSI A92 standards.

Single copy price: Free

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Elijah Dominguez; [domingueze@asme.org](mailto:domingueze@asme.org)

### ASSP (Safety) (American Society of Safety Professionals)

520 N. Northwest Highway, Park Ridge, IL 60068 p: (847) 768-3475 w: [www.assp.org](http://www.assp.org)

#### Reaffirmation

BSR/ASSP Z9.4-2011 (R202x), Abrasive-Blasting Operations Ventilation and Safe Practices For Fixed Location Enclosures (reaffirmation and redesignation of ANSI/AIHA Z9.4-2011)

This standard applies to all operations in fixed-location abrasive-blast enclosures in which an abrasive forcibly comes in contact with a surface by pneumatic or hydraulic pressure or by centrifugal force. It does not apply to steam blasting, steam cleaning, or hydraulic cleaning methods in which work is done without the aid of abrasives. It also does not apply to abrasive blasting conducted outdoors (e.g., bridges, water towers) even though temporary enclosures may be built at such locations. The final criterion for the designed equipment's performance and operation will preclude any accident, health hazards, or violation of governmental regulations. The exhaust ventilation must:

- keep the escape of dust from the enclosure to a minimum;
- maintain a reasonable visibility in blast-cleaning rooms and cabinets, and
- provide for rapid clearance of the dust-laden air within the enclosure after the cessation of blasting to permit the enclosure to be opened.

Single copy price: \$110.00

Obtain an electronic copy from: [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

Order from: Lauren Bauerschmidt; [LBauerschmidt@assp.org](mailto:LBauerschmidt@assp.org)

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

### B11 (B11 Standards, Inc.)

P.O. Box 690905, Houston, TX 77269 p: (832) 446-6999 w: <https://www.b11standards.org/>

#### Revision

BSR B11.6-202x, Safety Requirements for Manual Turning Machines with or without Automatic Control (revision of ANSI B11.6-2001 (R2020))

This standard specifies safety requirements for the design, construction, operation, and maintenance (including installation, dismantling, and transport) of the general class of manually controlled horizontal and vertical spindle-turning machines. Machines covered by this standard are intended to work metals and other man-made materials. This standard also applies to devices that are integral to the machine. These machines may have automatic capability but may not be equipped with automatic part handling or bar-feed mechanisms nor automatic tool-changing systems. This standard does not apply to NC Turning Machines where manual control is used only to set the machine for automatic production.

Single copy price: Free

Obtain an electronic copy from: [dfelinski@b11standards.org](mailto:dfelinski@b11standards.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [dfelinski@b11standards.org](mailto:dfelinski@b11standards.org)

## Comment Deadline: March 15, 2021

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

P.O. Box 690905, Houston, TX 77269 p: (832) 446-6999 w: <https://www.b11standards.org/>

#### **Revision**

BSR B11.8-202x, Safety Requirements for Manual Milling, Drilling and Boring Machines with or without Automatic Control (revision of ANSI B11.8-2001 (R2020))

This standard specifies safety requirements for the design, construction, operation, and maintenance (including installation, dismantling, and transport) of manually controlled milling, drilling, and boring machines. This standard also applies to devices that are integral to the machine. These machines may have automatic capability but may not be equipped with automatic tool changing or automatic part handling systems. This standard does not apply to NC milling, drilling, and boring machines where manual control is used only to set the machine for automatic production.

Single copy price: \$69.00

Obtain an electronic copy from: [dfelinski@b11standards.org](mailto:dfelinski@b11standards.org)

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [dfelinski@b11standards.org](mailto:dfelinski@b11standards.org)

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

17 Faulkner Drive, Niantic, CT 06357 p: (860) 944-4264 w: [www.buildershardware.com](http://www.buildershardware.com)

#### **Revision**

BSR/BHMA A156.8-202x, Door Controls - Overhead Stops and Holders (revision of ANSI/BHMA A156.8-2015)

This Standard establishes requirements for overhead door stops and holders, and includes performance tests covering operational, cyclical, strength, and finish criteria.

Single copy price: \$36.00

Obtain an electronic copy from: [mptierney@snet.net](mailto:mptierney@snet.net)

Order from: Michael Tierney; [mtierney@kellencompany.com](mailto:mtierney@kellencompany.com)

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

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

17 Faulkner Drive, Niantic, CT 06357 p: (860) 944-4264 w: [www.buildershardware.com](http://www.buildershardware.com)

#### **Revision**

BSR/BHMA A156.15-202x, Release Devices - Closer Holder, Electromagnetic and Electromechanical (revision of ANSI/BHMA A156.15-2015)

This Standard establishes requirements for door closers combined with hold-open devices or free-swinging door closers combined with releasing devices and includes performance tests covering operational, cyclical, and finish criteria.

Single copy price: \$36.00

Obtain an electronic copy from: [mptierney@snet.net](mailto:mptierney@snet.net)

Order from: Michael Tierney; [mtierney@kellencompany.com](mailto:mtierney@kellencompany.com)

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

### **ECIA (Electronic Components Industry Association)**

13873 Park Center Road, Suite 315, Herndon, VA 20171 p: (571) 323-0294 w: [www.ecianow.org](http://www.ecianow.org)

#### **Revision**

BSR/EIA 364-70D-202x, Temperature Rise Versus Current Test Procedure for Electrical Connectors and Sockets (revision and redesignation of ANSI/EIA 364-70C-2014)

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

Single copy price: \$84.00

Obtain an electronic copy from: <https://global.ihs.com/>

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Ed Mikoski; [emikoski@ecianow.org](mailto:emikoski@ecianow.org)

## Comment Deadline: March 15, 2021

### FM (FM Approvals)

1151 Boston-Providence Turnpike, Norwood, MA 02062 p: (781) 255-4813 w: [www.fmglobal.com](http://www.fmglobal.com)

#### **Reaffirmation**

BSR/FM 1950-2016 (R202x), Seismic Sway Braces for Pipe, Tubing and Conduit (reaffirmation of ANSI/FM 1950-2016)

This standard includes design and performance requirements for seismic sway bracing used to restrain piping, tubing, and conduit. General and performance requirements apply to components that are attached to the structural element and to the piping, tubing, and conduit. Although used in testing, the "brace member" attached between the structural attached component and piping attached component is not included within the scope of this standard.

Single copy price: Free

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

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [josephine.mahnken@fmaprovals.com](mailto:josephine.mahnken@fmaprovals.com)

### HFES (Human Factors & Ergonomics Society)

2025 M Street NW, Suite 800, Washington, DC 20036 p: (202) 367-1114 w: [www.hfes.org](http://www.hfes.org)

#### **New Standard**

BSR/HFES 400-202x, Human Readiness Level Scale in the System Development Process (new standard)

This standard specifies how to apply the Human Readiness Level (HRL) scale in the system development process. The HRL scale is a simple nine-level scale to evaluate, track, and communicate the readiness of a system for human use. The HRL scale is designed to complement and supplement the existing Technology Readiness Level (TRL) scale. Whereas the TRL scale focuses on technical maturity, the HRL scale focuses on readiness for human use. The purpose of the HRL scale is to fully incorporate the human element of the system throughout the lifecycle, allowing human systems integration issues to be captured and mitigated early in the design phase in order to reduce human error in the fielded system.

Single copy price: Free

Obtain an electronic copy from: [hfes400@hfes.org](mailto:hfes400@hfes.org)

Order from: Steven Kemp; [skemp@hfes.org](mailto:skemp@hfes.org)

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

### IEEE (ASC N42) (Institute of Electrical and Electronics Engineers)

445 Hoes Lane, Piscataway, NJ 08854 p: (732) 562-3874 w: [www.ieee.org](http://www.ieee.org)

#### **Revision**

BSR N42.53-202x, Standard Performance Criteria for Backpack- Based Radiation-Detection Systems Used for Homeland Security (revision of ANSI N42.53-2013)

This standard specifies the basic performance requirements for backpack-based radiation-detection systems (BRDs) used in homeland security applications. BRDs shall detect gamma radiation and may include neutron detection and/or the identification of gamma-ray-emitting radionuclides. They are typically worn by the user during operation but may also be used as temporary area monitors. This standard establishes the radiological performance and testing requirements and those requirements associated with the expected electrical, mechanical, and environmental conditions while in use.

Single copy price: \$64.00

Obtain an electronic copy from: [j.santulli@ieee.org](mailto:j.santulli@ieee.org)

Order from: Jennifer Santulli; [J.Santulli@ieee.org](mailto:J.Santulli@ieee.org)

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

## Comment Deadline: March 15, 2021

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

1300 North 17th Street, Suite 1752, Arlington, VA 22209 p: (703) 841-3279 w: [www.nema.org](http://www.nema.org)

#### ***New National Adoption***

BSR/NEMA 62321-3-2-202x, Determination of certain substances in electrotechnical products - Part 3-2: Screening - Fluorine, bromine and chlorine in polymer and electronics by combustion-ion chromatography (C-IC) (identical national adoption of IEC 62321-3-2:2020)

IEC 62321-3-2:2020 specifies the screening analysis of fluorine, chlorine, and bromine in polymers and electronics using combustion-ion chromatography (C-IC). IEC 62321-3-2:2020 cancels and replaces the first edition published in 2013. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition: (a) In the previous edition, a screening test method for bromine (Br) content only was provided. In this edition, a screening test method by C-IC for fluorine (F), chlorine (Cl), and bromine (Br) has been added to the normative part of the document; (b) A screening test method by C-IC for iodine (I) has been added in Annex D (informative). It has the status of a horizontal standard in accordance with IEC Guide 108.

Single copy price: \$225.00

Obtain an electronic copy from: [brian.marchionini@nema.org](mailto:brian.marchionini@nema.org)

Order from: Brian Marchionini; [brian.marchionini@nema.org](mailto:brian.marchionini@nema.org)

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

### **NENA (National Emergency Number Association)**

1700 Diagonal Road, Suite 500, Alexandria, VA 22314 p: (727) 312-3230 w: [www.nena.org](http://www.nena.org)

#### ***New Standard***

BSR/NENA STA-018.1-202X, NENA Changing Role of the Telecommunicator in NG9-1-1 (new standard)

The continuing implementation of NG9-1-1 will result in significant impacts on Telecommunicators and other 9-1-1 professionals. The 9-1-1 community is in need of guidance on what these impacts will be so that they may begin related planning efforts. Examples of the changes they will need to address include: changes in job qualifications; changes in job skills, knowledge, and abilities; and potential changes in stress-related impacts among many others. In addition, the very nature of the job of a 9-1-1 telecommunicator may change as they become involved with data and sensor analysis and interpretation. Together, this information will help not only the current managers and leaders in the field as they prepare for impacts on telecommunicators, but also human resources professionals, educators, and individuals interested in the profession.

Single copy price: Free

Obtain an electronic copy from: [https://dev.nena.org/higherlogic/ws/public/document?](https://dev.nena.org/higherlogic/ws/public/document?document_id=21551&wg_id=847ee342-bd29-4f1f-9f98-34f196cb56f7)

[document\\_id=21551&wg\\_id=847ee342-bd29-4f1f-9f98-34f196cb56f7](https://dev.nena.org/higherlogic/ws/public/document?document_id=21551&wg_id=847ee342-bd29-4f1f-9f98-34f196cb56f7)

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Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Submit comments by going to [https://dev.nena.org/higherlogic/ws/public/document?document\\_id=21551&wg\\_id=847ee342-bd29-4f1f-9f98-34f196cb56f7](https://dev.nena.org/higherlogic/ws/public/document?document_id=21551&wg_id=847ee342-bd29-4f1f-9f98-34f196cb56f7) and select "Add

A Comment."

### **UL (Underwriters Laboratories)**

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-1851 w: <https://ul.org/>

#### ***New National Adoption***

BSR/UL 60079-33-202x, Standard for Safety for Explosive Atmospheres - Part 33: Equipment Protection by Special Protection s (national adoption with modifications of IEC 60079-33)

This proposal for UL 60079-33 gives the specific methodology for the assessment and testing, and requirements for marking of electrical equipment, parts of electrical equipment and Ex components with special protection "s". This US adoption will be based off of IEC 60079-33, Explosive Atmospheres - Part 33: Equipment Protection by Special Protection "s", (first edition, issued by IEC September 2012) as a new IEC-based UL standard, UL 60079-33 with US Differences.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>



## Comment Deadline: March 15, 2021

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062 p: (847) 664-1292 w: <https://ul.org/>

#### **Revision**

BSR/UL 1691-202x, Standard for Safety for Single-Pole Locking-Type Separable Connectors (revision of ANSI/UL 1691-2018)

This proposal for UL 1691 covers: (1) This proposed Second Edition of the Standard for Standard for Single Pole Locking-Type Separable Connectors, UL 1691, includes the following proposal: Alternative Marking and Instructions for Manufacturer's Website, Section 37.6.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 549-1053 w: <https://ul.org/>

#### **Revision**

BSR/UL 2238-202X, Standard for Cable Assemblies and Fittings for Industrial Control and Signal Distribution (revision of ANSI/UL 2238-2020)

This proposal covers: (1) Markings and Instructions; and (2) Typo to Clause 25.1.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### VC (ASC Z80) (The Vision Council)

225 Reinekers Lane, Suite 700, Alexandria, VA 22314 p: (585) 387-9913 w: [www.z80asc.com](http://www.z80asc.com)

#### **Revision**

BSR Z80.36-202x, Light Hazard Protection for Ophthalmic Instruments (revision of ANSI Z80.36-2016)

Z80.36 specifies fundamental requirements for optical radiation safety for ophthalmic instruments and is applicable to all current ophthalmic instruments that direct optical radiation into or at the eye. It is also applicable to all new and emerging ophthalmic instruments that direct optical radiation into or at the eye, as well as to those portions of therapeutic or surgical systems that direct optical radiation into or at the eye for diagnostic, illumination, measurement, imaging or alignment purposes. Z80.36 does not apply to radiation that is intended for treatment of ocular tissues.

Single copy price: \$82.50

Obtain an electronic copy from: <https://www.z80asc.com/> or email: [ascz80@thevisioncouncil.org](mailto:ascz80@thevisioncouncil.org)

Order from: Michele Stolberg; [ascz80@thevisioncouncil.org](mailto:ascz80@thevisioncouncil.org)

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

## Comment Deadline: March 30, 2021

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062 p: (847) 664-1292 w: <https://ul.org/>

#### ***New National Adoption***

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

BSR/UL 62986-202x, Standard for Safety for Plugs, Socket-Outlets and Couplers with Arcuate Contacts (national adoption with modifications of IEC 62986)

The proposed First Edition of UL 62986 as a standard is an adoption of the Edition 1.0 of the Standard for Plugs, Socket-Outlets and Couplers with Arcuate Contacts, IEC 62986, issued September 2017. IEC 62986 is copyrighted by the IEC. Please note that the National Difference document incorporates all of the U.S. national differences for UL 62986.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

### UL (Underwriters Laboratories)

333 Pfingsten Road, Northbrook, IL 60062-2096 p: (847) 664-3416 w: <https://ul.org/>

#### ***Revision***

Reaffirmations and withdrawals available electronically may be accessed at: [webstore.ansi.org](http://webstore.ansi.org)

BSR/UL 1275-202x, Standard for Safety for Flammable Liquid Storage Cabinets (revision of ANSI/UL 1275-2010 (R2014))

New edition of UL 1275 to incorporate requirements from ULC/ORD-C1275 to establish a joint UL/ULC standard.

Single copy price: Free

Obtain an electronic copy from: <https://csds.ul.com/Home/ProposalsDefault.aspx>

Order from: <http://www.shopulstandards.com>

Send comments (with optional copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Follow the instructions in the following website to enter comments into the CSDS Work Area: <https://csds.ul.com/Home/ProposalsDefault.aspx>

# 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.

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## **AGA (ASC Z380) (American Gas Association)**

400 North Capitol Street, NW, Suite 450, Washington, DC 20001 p: (202) 824-7337 w: [www.aga.org](http://www.aga.org)

### ***Addenda***

ANSI/GPTC Z380.1-2018, Addendum No. 6-2021, Guide for Transmission, Distribution, and Gathering Piping Systems (addenda to ANSI/GPTC Z380.1-2018) Final Action Date: 1/22/2021

## **API (American Petroleum Institute)**

200 Massachusetts Avenue NW, Suite 1100, Washington, DC 20001-5571 p: (202) 682-8159 w: [www.api.org](http://www.api.org)

### ***Reaffirmation***

ANSI/API MPMS 14.3.1-2011 (R2021), Concentric, Square-edged Orifice Meters-General Equations and Uncertainty Guidelines (reaffirmation of ANSI/API MPMS 14.3.1-2011) Final Action Date: 1/25/2021

## **ASC X9 (Accredited Standards Committee X9, Incorporated)**

275 West Street, Suite 107, Annapolis, MD 21401 p: (410) 267-7707 w: [www.x9.org](http://www.x9.org)

### ***Reaffirmation***

ANSI X9.100-181-2014 (R2021), TIFF Image Format for Image Exchange (reaffirmation of ANSI X9.100-181-2014) Final Action Date: 1/19/2021

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

1801 Alexander Bell Dr, Reston, VA 20191 p: (703) 295-6176 w: [www.asce.org](http://www.asce.org)

### ***New Standard***

ANSI/ASCE/CI 71-2021, Identifying, Quantifying, and Proving Loss of Productivity (new standard) Final Action Date: 1/19/2021

### ***Revision***

ANSI/ASCE/T&DI 21-2021, Automated People Mover Standard (revision of ANSI/ASCE T&DI 21-2013) Final Action Date: 1/21/2021

## **ASTM (ASTM International)**

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 p: (610) 832-9744 w: [www.astm.org](http://www.astm.org)

### ***Reaffirmation***

ANSI/ASTM F1321-2014 (R2021), Guide for Conducting a Stability Test (Lightweight Survey and Inclining Experiment) to Determine the Light Ship Displacement and Centers of Gravity of a Vessel (reaffirmation of ANSI/ASTM F1321-2014) Final Action Date: 1/15/2021

## **AWS (American Welding Society)**

8669 NW 36th Street, Suite 130, Miami, FL 33166-6672 p: (800) 443-9353 308 w: [www.aws.org](http://www.aws.org)

### ***New Standard***

ANSI/AWS D16.2M/D16.2-2021, Guide for Components of Robotic and Automatic Arc Welding Installations (new standard) Final Action Date: 1/25/2021

### ***New Standard***

ANSI/AWS D16.5M/D16.5-2021, Training Guide for Robotic Arc Welding Personnel (new standard) Final Action Date: 1/21/2021

**AWWA (American Water Works Association)**

6666 W. Quincy Avenue, Denver, CO 80235 p: (303) 347-6178 w: [www.awwa.org](http://www.awwa.org)

**Revision**

ANSI/AWWA D102-2021, Coating Steel Water-Storage Tanks (revision of ANSI/AWWA D102-2017) Final Action Date: 1/19/2021

**CSA (CSA America Standards Inc.)**

8501 E. Pleasant Valley Road, Cleveland, OH 44131 p: (216) 524-4990 w: [www.csagroup.org](http://www.csagroup.org)

**New National Adoption**

ANSI/CSA C22.2 No. 19085-6-2021, Woodworking machines - Safety - Part 6: Single spindle vertical moulding machines (toupies) (national adoption with modifications of ISO 19085-6) Final Action Date: 1/25/2021

**New National Adoption**

ANSI/CSA C22.2 No. 19085-8-2021, Woodworking machines - Safety - Part 8: Belt sanding and calibrating machines for straight workpieces (national adoption with modifications of ISO 19085-8) Final Action Date: 1/25/2021

**ESTA (Entertainment Services and Technology Association)**

271 Cadman Plaza, P.O. Box 23200, Brooklyn, NY 11202-3200 p: (212) 244-1505 w: [www.esta.org](http://www.esta.org)

**New Standard**

ANSI E1.59-2021, Entertainment Technology - Object Transform Protocol (OTP) (new standard) Final Action Date: 1/19/2021

**New Standard**

ANSI E1.62-2021, Minimum specifications for mass-produced portable platforms, ramps, stairs, and choral risers for live performance events (new standard) Final Action Date: 1/19/2021

**FCI (Fluid Controls Institute)**

1300 Sumner Avenue, Cleveland, OH 44115 p: (216) 241-7333 w: [www.fluidcontrolsinstitute.org](http://www.fluidcontrolsinstitute.org)

**Revision**

ANSI/FCI 70-2-2021, Control Valve Seat Leakage Testing (revision of ANSI/FCI 70-2-2013) Final Action Date: 1/26/2021

**HPS (ASC N43) (Health Physics Society)**

1313 Dolley Madison Blvd #402, McLean, VA 22101 p: (703) 790-1745 w: [www.hps.org](http://www.hps.org)

**Revision**

ANSI N43.4-2021, Classification of Radioactive Self-Luminous Light Sources (revision of ANSI N43.4-2013) Final Action Date: 1/21/2021

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

5001 East Philadelphia Street, Ontario, CA 91761 p: (909) 230-5534 w: <https://www.iapmostandards.org>

**Revision**

ANSI/IAPMO Z1002-2020, Rainwater Harvesting Tanks (revision of ANSI/IAPMO Z1002-2014) Final Action Date: 1/21/2021

**IEEE (ASC C63) (Institute of Electrical and Electronics Engineers)**

445 Hoes Lane, Piscataway, NJ 08854 p: (732) 562-3874 w: [www.ieee.org](http://www.ieee.org)

***New Standard***

ANSI C63.24-2021, Standard Recommended Practice for In Situ RF Immunity Evaluation of Electronic Devices and Systems (new standard) Final Action Date: 1/19/2021

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 418-6660 w: [www.nsf.org](http://www.nsf.org)

***Revision***

ANSI/NSF 46-2021 (i36r1), Evaluation of Components and Devices Used in Wastewater Treatment Systems (revision of ANSI/NSF 46-2018) Final Action Date: 1/18/2021

***Revision***

ANSI/NSF 244-2021 (i6r1), Supplemental Microbiological Water Treatment Systems - Filtration (revision of ANSI/NSF 244-2019) Final Action Date: 1/19/2021

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

140 Philips Rd, Exton, PA 19341 p: (800) 542-5040 w: [www.scte.org](http://www.scte.org)

***New Standard***

ANSI/SCTE 260-1-2020, DPoE Architecture Specification (new standard) Final Action Date: 1/25/2021

***New Standard***

ANSI/SCTE 260-2-2020, DPoE IP Network Element Requirements (new standard) Final Action Date: 1/25/2021

**UL (Underwriters Laboratories)**

12 Laboratory Drive, Research Triangle Park, NC 27709 p: (613) 368-4432 w: <https://ul.org/>

***Reaffirmation***

ANSI/UL 752-2006 (R2021), Standard for Safety for Bullet-Resisting Equipment (reaffirmation of ANSI/UL 752-2006 (R2015)) Final Action Date: 1/20/2021

***Revision***

ANSI/UL 142-2021, Standard for Safety for Steel Aboveground Tanks for Flammable and Combustible Liquids (revision of ANSI/UL 142-2019) Final Action Date: 1/21/2021

***Revision***

ANSI/UL 142A-2021, Standard for Safety for Special Purpose Aboveground Tank for Specific Flammable or Combustible Liquids (revision of ANSI/UL 142A-2018) Final Action Date: 1/21/2021

***Revision***

ANSI/UL 144-2021, Standard for Safety for LP-Gas Regulators (revision of ANSI/UL 144-2019) Final Action Date: 1/22/2021

***Revision***

ANSI/UL 231-2021, Standard for Safety for Power Outlets (revision of ANSI/UL 231-2020) Final Action Date: 1/22/2021

**UL (Underwriters Laboratories)**

333 Pfingsten Road, Northbrook, IL 60062-2096 p: (847) 664-3038 w: <https://ul.org/>

**Revision**

ANSI/UL 428A-2021, Standard for Electrically Operated Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations Up to 85 Percent (E0 - E85) (revision of ANSI/UL 428A-2019) Final Action Date: 1/22/2021

**Revision**

ANSI/UL 428B-2021, Standard for Electrically Operated Valves for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations Up To 20 Percent (B20), Kerosene, and Fuel Oil (revision of ANSI/UL 428B-2020) Final Action Date: 1/22/2021

**Revision**

ANSI/UL 555C-2021, Standard for Ceiling Dampers (revision of ANSI/UL 555C-2017) Final Action Date: 1/21/2021

**Revision**

ANSI/UL 2586-2021, Standard for Hose Nozzle Valves for Flammable and Combustible Liquids (revision of ANSI/UL 2586-2014) Final Action Date: 1/22/2021

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

929 W. Portobello Avenue, Mesa, AZ 85210 p: (602) 281-4497 w: [www.vita.com](http://www.vita.com)

**Revision**

ANSI/VITA 67.3-2020, Coaxial Interconnect on VPX, Spring-Loaded Contact on Backplane (revision of ANSI/VITA 67.3-2017) Final Action Date: 1/21/2021

# Call for Members (ANS Consensus Bodies)

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

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## **AGMA (American Gear Manufacturers Association)**

1001 N Fairfax Street, 5th Floor, Alexandria, VA 22314-1587 p: (703) 684-0211 w: [www.agma.org](http://www.agma.org)

Amir Aboutaleb; [tech@agma.org](mailto:tech@agma.org)

BSR/AGMA ISO 1328-2-AXX-202x, Cylindrical gears - ISO system of flank tolerance classification - Part 2: Definitions and allowable values of double flank radial composite deviations (identical national adoption of ISO 1328-2:2020)

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

Two Park Avenue, M/S 6-2B, New York, NY 10016-5990 p: (212) 591-8489 w: [www.asme.org](http://www.asme.org)

Terrell Henry; [ansibox@asme.org](mailto:ansibox@asme.org)

BSR/ASME HST-3-202x, Performance Standard for Lever Hoists (revision of ANSI/ASME HST-3-2017)

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

355 Lexington Avenue, 15th Floor, New York, NY 10017-6603 p: (513) 600-2871 w: [www.buildershardware.com](http://www.buildershardware.com)

Karen Bishop; [Kbishop@Kellencompany.com](mailto:Kbishop@Kellencompany.com)

BSR/BHMA A156.20-202x, Standard for Strap and Tee Hinges, and Hasps (revision of ANSI/BHMA A156.20-2017)

BSR/BHMA A156.26-202x, Standard for Continuous Hinges (revision of ANSI/BHMA A156.26-2017)

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

17 Faulkner Drive, Niantic, CT 06357 p: (860) 944-4264 w: [www.buildershardware.com](http://www.buildershardware.com)

Michael Tierney; [mtierney@kellencompany.com](mailto:mtierney@kellencompany.com)

BSR/BHMA A156.8-202x, Door Controls - Overhead Stops And Holders (revision of ANSI/BHMA A156.8-2015)

BSR/BHMA A156.15-202x, Release Devices - Closer Holder, Electromagnetic and Electromechanical (revision of ANSI/BHMA A156.15-2015)

## **ECIA (Electronic Components Industry Association)**

13873 Park Center Road, Suite 315, Herndon, VA 20171 p: (571) 323-0294 w: [www.ecianow.org](http://www.ecianow.org)

Laura Donohoe; [ldonohoe@ecianow.org](mailto:ldonohoe@ecianow.org)

BSR/EIA 364-70D-202x, Temperature Rise Versus Current Test Procedure for Electrical Connectors and Sockets (revision and redesignation of ANSI/EIA 364-70C-2014)

## **HFES (Human Factors & Ergonomics Society)**

2025 M Street NW, Suite 800, Washington, DC 20036 p: (202) 367-1114 w: [www.hfes.org](http://www.hfes.org)

Steven Kemp; [skemp@hfes.org](mailto:skemp@hfes.org)

BSR/HFES 400-202x, Human Readiness Level Scale in the System Development Process (new standard)

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

1300 North 17th Street, Suite 1752, Arlington, VA 22209 p: (703) 841-3279 w: [www.nema.org](http://www.nema.org)

Brian Marchionini; [brian.marchionini@nema.org](mailto:brian.marchionini@nema.org)

BSR/NEMA 62321-3-2-202x, Determination of certain substances in electrotechnical products - Part 3 -2: Screening - Fluorine, bromine and chlorine in polymer and electronics by combustion-ion chromatography (C-IC) (identical national adoption of IEC 62321-3-2:2020)

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-3817 w: [www.nsf.org](http://www.nsf.org)  
Allan Rose; [arose@nsf.org](mailto:arose@nsf.org)

BSR/NSF 49-202x (i159r3), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2019)

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 418-6660 w: [www.nsf.org](http://www.nsf.org)  
Jason Snider; [jsnider@nsf.org](mailto:jsnider@nsf.org)

BSR/NSF 40-202x (i42r1), Residential Wastewater Treatment Systems (revision of ANSI/NSF 40-2019)

**NSF (NSF International)**

789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-5643 w: [www.nsf.org](http://www.nsf.org)  
Monica Leslie; [mleslie@nsf.org](mailto:mleslie@nsf.org)

BSR/NSF 55-202x (i53r1), Ultraviolet Microbiological Water Treatment Systems (revision of ANSI/NSF 55-2019)

**TAPPI (Technical Association of the Pulp and Paper Industry)**

15 Technology Parkway, Suite 115, Peachtree Corners, GA 30092 p: (770) 209-7249 w: [www.tappi.org](http://www.tappi.org)  
Brittaney Lovett; [standards@tappi.org](mailto:standards@tappi.org)

BSR/TAPPI T 227 om-202x, Freeness of pulp (Canadian standard method) (new standard)

BSR/TAPPI T 278 sp-202x, Pulp screening (Valley-type screening device) (new standard)

BSR/TAPPI T 413 om-202x, Ash in wood, pulp, paper and paperboard: Combustion at 900°C (new standard)

BSR/TAPPI T 448 om-202x, Water vapor transmission rate of paper and paperboard at 23 degrees C and 50% RH (new standard)

BSR/TAPPI T 827 om-202x, Box blank dimensioning (new standard)



# Call for Members (ANS Consensus Bodies)

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

## ANSI Accredited Standards Developer

### AAMI (Association for the Advancement of Medical Instrumentation)

AAMI ([www.aami.org](http://www.aami.org)) is actively seeking participation in the following standards development work and in the interest categories specified:

BSR/AAMI/ISO 5840-1-202x, Cardiovascular implants - Cardiac valve prostheses - Part 1: General requirements (identical national adoption of ISO 5840-1:2020 and revision of ANSI/AAMI/ISO 5840-1-2015).

US adoption of AAMI/ISO 5840-1-202x, Cardiovascular implants - Cardiac valve prostheses - Part 1: General requirements. Applicable to heart valve substitutes intended for implantation and provides general requirements. Subsequent parts of the ISO 5840 series provide specific requirements. Applicable to newly developed and modified heart valve substitutes and to the accessory devices, packaging, and labelling required for their implantation and for determining the appropriate size of the heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 5840-2-202x, Cardiovascular implants - Cardiac valve prostheses - Part 2: Surgically implanted heart valve substitutes (identical national adoption of ISO 5840-2:2020 and revision of ANSI/AAMI/ISO 5840-2-2015).

US adoption of AAMI/ISO 5840-2-202x, Cardiovascular implants - Cardiac valve prostheses - Part 2: Surgically implanted heart valve substitutes. Applicable to heart valve substitutes intended for implantation in human hearts, generally requiring cardiopulmonary bypass and generally with direct visualization. Applicable to both newly developed and modified surgical heart valve substitutes and to the accessory devices, packaging, and labelling required for their implantation and for determining the appropriate size of the surgical heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 5840-3-202x, Cardiovascular implants - Cardiac valve prostheses - Part 3: Heart valve substitutes implanted by transcatheter techniques (national adoption of ISO 5840-3:2020 with modifications and revision of ANSI/AAMI/ISO 5840-3-2012).

US adoption of AAMI/ISO 5840-3-202x, Cardiovascular implants - Cardiac valve prostheses - Part 3: Heart valve substitutes implanted by transcatheter techniques. Applicable to all devices intended for implantation as a transcatheter heart valve substitute. Applicable to transcatheter heart valve substitutes and to the accessory devices, packaging and labelling required for their implantation and for determining the appropriate size of heart valve substitute to be implanted. Seeking industry, user, regulator and general interest participation.

BSR/AAMI/ISO 25539-2-202x, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents (identical national adoption of ISO 25539-2:2020, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents, and revision of ANSI/AAMI/ISO 25539-2-2012).

US adoption of AAMI/ISO 25539-2-202x, Cardiovascular implants - Endovascular devices - Part 2: Vascular stents. Specifies requirements for the evaluation of stent systems (vascular stents and delivery systems) and requirements with respect to nomenclature, design attributes and information supplied by the manufacturer, based upon current medical knowledge. Guidance for the development of in vitro test methods is included. Seeking industry, user, regulator and general interest participation.

# Call for Members (ANS Consensus Bodies)

## ANSI Accredited Standards Developer

### CSA America Standards Inc. (CSA)

#### Fuel Cell Technical Committee

CSA Group, an ANSI-accredited SDO, is seeking additional experts to serve on the bi-national Fuel Cell Technical Committee. The Fuel Cell Technical Committee develops and maintains minimum safety standards and essential requirements for the design construction and maintenance of:

- a) stationary, portable, and micro fuel cells;
- b) hydrogen generation technologies using all fuels (e.g., electrolysis, coal, natural gas);
- c) related components and equipment for stationary, portable and micro fuel cells; and
- d) related components and equipment installed for hydrogen generation technologies using all fuels.

We are seeking interested stakeholders who will actively participate and contribute to the development and maintenance of these important standards through CSA's accredited Standards Development Process(es).

The Technical Committee is seeking members in the following categories:

User interest — those who predominantly represent consumer interests or end users of the subject product(s), material(s), or service(s), and who are not involved in any way in production or distribution of the subject product(s), material(s), or service(s).

Regulatory authority — those who are predominantly involved in regulating the use of the subject product(s), material(s), or service(s).

What is expected?

- Strong interest and knowledge of the subject matter
- Active participation and willingness to work on a Technical Committee electronically and in-person
- Ability to represent a stakeholder category outlined above
- Ability to work in a multi-stakeholder environment, following the principles of consensus

If you are interested in participating as a new member of the CSA Fuel Cell Technical Committee, please submit a brief bio along with a statement outlining your interest and ability to contribute to the work to Mark Duda at [mark.duda@csagroup.org](mailto:mark.duda@csagroup.org). If you know of a colleague who may be interested in this project, feel free to distribute this document

## Call for Members (ANS Consensus Bodies)

### ANSI Accredited Standards Developer

#### GBI - Green Building Initiative

**Interested parties should apply by February 15, 2021**

GBI is soliciting for Consensus Body members for the development of a new standard on Existing Buildings. BSR/GBI 02-202x, Green Globes Assessment Protocol for Existing Buildings (new standard)

The standard will include criteria and practices for resource-efficient, healthy, resilient, and environmentally preferable renovations, operations, maintenance, and improvement of existing commercial buildings. Up to six areas of green building design will be included: ESG management, site, energy, water, materials, and indoor environmental quality. GBI is looking for members in the following interest categories: Producer, Users and General Interest. Interested parties should apply by February 15, 2021. For more information and to apply for the Consensus Body for Existing Buildings, please use the appropriate form located at <https://www.thegbi.org/ansi>. You can send completed applications to Emily Marx, Manager of Standards and Program Support, at [marx@thegbi.org](mailto:marx@thegbi.org).

GBI (Green Building Initiative)

Office: 7805 SW 40th Ave. #80010, Portland, OR 97219

Contact: Emily Marx, Manager of Standards and Program Support

Phone: (503) 274-0448 x103

Email: [marx@thegbi.org](mailto:marx@thegbi.org)

### 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 affected 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](mailto: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 categories:

- Service Providers
- Users
- Standards Development Organizations and Consortia
- Academic Institutions

## Call for Members (ANS Consensus Bodies)

### ANSI Accredited Standards Developer

#### RIC - Remanufacturing Industries Council

##### ANSI/RIC 001.1-2016

RIC is actively seeking participation in the following standards development work and in the interest categories specified:

RIC001.1-2016, Specifications for the Process of Remanufacturing, revision:

- User: An individual employed by or otherwise representing an organization that purchases or uses remanufactured products or components shall be classified as a User. Original equipment manufacturers may remanufacture products and components for their own use, as well as to sell to other end-users.
- General Interest: General members are neither Producers nor Users. This category includes, but is not limited to, educators, researchers, representatives of government agencies, business associations, and technical societies. To apply or obtain additional information please contact Michelle Hayes at [mhayes@remancouncil.org](mailto:mhayes@remancouncil.org). For more information, see [remanstandard.us/users](http://remanstandard.us/users).

### 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](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE's membership rules and operating procedures. More information is available at [www.scte.org](http://www.scte.org) or by e-mail from [standards@scte.org](mailto:standards@scte.org).

# Call for Technical Subcommittee Members

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## ANSI Accredited Standards Developer

### IAPMO - International Association of Plumbing & Mechanical Officials

**Application deadline: February 11, 2021 - Technical Subcommittee Members for Development of National Standard IAPMO Z1324**

The International Association of Plumbing and Mechanical Officials (IAPMO®) is seeking volunteers, with technical background in plumbing and mechanical systems and specific knowledge of alternate water source reuse systems — such as jurisdictional authorities, testing lab and educational facility representatives, as well as manufacturing experts — to participate on the IAPMO Z1324 Technical Subcommittee (TSC). The scope of IAPMO Z1324 covers alternate water source systems for multi-family, residential, and commercial use intended to process water from alternate water sources — such as greywater, rainwater, stormwater, air conditioning condensate, cooling tower makeup, vehicle wash and other nonpotable reuse applications not specifically listed — for use in subsurface and/or surface irrigation and toilet/urinal flushing applications. The Z1324 standard will be developed by this TSC.

The Z1324 TSC members will be assisting the Plumbing Standards Committee (PSC) with the development of a new American National Standard and National Standard of Canada. The Z1324 TSC will also be responsible for the content and processing of public review comments. The Z1324 TSC will operate in accordance with IAPMO's accredited procedures for standards development

IAPMO PP-1 (Policies and Procedures for Consensus Development of American National Standards) and

IAPMO PP-2 (Policies and Procedures for Development of National Standards of Canada).

Founded in 1926, IAPMO seeks to be a worldwide leader in the plumbing and mechanical industry through the protection of health and safety. IAPMO develops industry standards with a focus on plumbing products, solar heating systems and components, mechanical products (including heating, ventilation, cooling and refrigeration system products) and products used in the recreational vehicle and manufactured housing industries.

For more than 30 years, IAPMO has developed plumbing product standards as American National Standards, initially as the Secretariat for the ANSI Z124 Technical Committee in 1984, and since 2005 independently under its own American National Standards Institute (ANSI)-accredited standards development procedures. In 2018, IAPMO received accreditation through the Standards Council of Canada (SCC) for development of National Standards of Canada, thus accepting the responsibility for development of CAN/IAPMO-designated standards.

The deadline to apply is Feb. 11. Applications can be downloaded through the following URL:  
<http://www.iapmo.org/media/5582/application-for-membership-iapmo-tsc-2019-01-31.pdf>

Interested parties wishing to serve on the Z1324 TSC, please contact IAPMO Standards at [standards@iapmostandards.org](mailto:standards@iapmostandards.org) with a completed application, as well as a copy of your résumé, by the Feb. 11 deadline, or you may contact Kyle Thompson at (909) 230-5534, [standards@iapmostandards.org](mailto:standards@iapmostandards.org) with any questions

# Accreditation Announcements (Standards Developers)

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## Approval of Reaccreditation – ASD

### APA - The Engineered Wood Association

Effective January 26, 2021

The reaccreditation of APA – The Engineered Wood Association, an ANSI Member and Accredited Standards Developer, has been approved at the direction of ANSI’s Executive Standards Council under its recently revised operating procedures for documenting consensus on APA-sponsored American National Standards, effective January 26, 2021. For additional information, please contact: Borjen Yeh, Ph.D., P.E., E.ASTM, Director, Technical Services Division, APA, 7011 South 19th Street, Tacoma, WA 98466-5333; phone: 253.620.7467; email: [borjen.yeh@apawood.org](mailto:borjen.yeh@apawood.org).

# American National Standards (ANS) Process

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Please visit ANSI's website ([www.ansi.org](http://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 link is [www.ansi.org/asd](http://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](http://www.ansi.org))

- ANSI Essential Requirements: Due process requirements for American National Standards (always current edition): [www.ansi.org/essentialrequirements](http://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](http://www.ansi.org/standardsaction)
- Accreditation information – for potential developers of American National Standards (ANS): [www.ansi.org/sdoaccreditation](http://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](http://www.ansi.org/asd)
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: [www.ansi.org/asd](http://www.ansi.org/asd)
- American National Standards Key Steps: [www.ansi.org/anskeysteps](http://www.ansi.org/anskeysteps)
- American National Standards Value: [www.ansi.org/ansvalue](http://www.ansi.org/ansvalue)
- ANS Web Forms for ANSI-Accredited Standards Developers - PINS, BSR8|108, BSR11, Technical Report: <https://www.ansi.org/portal/psawebforms/>
- Information about standards Incorporated by Reference (IBR): <https://ibr.ansi.org/>
- ANSI - Education and Training: [www.standardslearn.org](http://www.standardslearn.org)

If you have a question about the ANS process and cannot find the answer, please email us at: [psa@ansi.org](mailto:psa@ansi.org) . Please also visit Standards Boost Business at [www.standardsboostbusiness.org](http://www.standardsboostbusiness.org) for resources about why standards matter, testimonials, case studies, FAQs and more.

If you are interested in purchasing an American National Standard, please visit <https://webstore.ansi.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.

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- **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)**
  - **IES (Illuminating Engineering Society)**
  - **ITI (InterNational Committee for Information Technology Standards)**
  - **MHI (Material Handling Industry)**
  - **NAHBRC (NAHB Research Center, Inc.)**
  - **NBBPVI (National Board of Boiler and Pressure Vessel Inspectors)**
  - **NCPDP (National Council for Prescription Drug Programs)**
  - **NEMA (National Electrical Manufacturers Association)**
  - **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)**
  - **UL (Underwriters Laboratories)**

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](http://www.ansi.org/asd), select "American National Standards Maintained Under Continuous Maintenance." Questions? [psa@ansi.org](mailto:psa@ansi.org).



# ANSI-Accredited Standards Developers Contacts

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

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## AAFS

American Academy of Forensic Sciences  
410 North 21st Street  
Colorado Springs, CO 80904  
e: [tambrosius@aafs.org](mailto:tambrosius@aafs.org)  
p: (719) 453-1036  
[www.aafs.org](http://www.aafs.org)

## AGA (ASC Z380)

American Gas Association  
400 North Capitol Street, NW  
Suite 450  
Washington, DC 20001  
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p: (202) 824-7337  
[www.aga.org](http://www.aga.org)

## AGMA

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Alexandria, VA 22314-1587  
e: [tech@agma.org](mailto:tech@agma.org)  
p: (703) 684-0211  
[www.agma.org](http://www.agma.org)

## AMCA

Air Movement and Control Association  
30 West University Drive  
Arlington Heights, IL 60004-1893  
e: [shrutik@amca.org](mailto:shrutik@amca.org)  
p: (847) 704-6285  
[www.amca.org](http://www.amca.org)

## APCO

Association of Public-Safety Communications Officials-International  
351 N. Williamson Boulevard  
Daytona Beach, FL 32114  
e: [Bixlerm@apcointl.org](mailto:Bixlerm@apcointl.org)  
p: 571-289-7402  
[www.apcolntl.org](http://www.apcolntl.org)

## API

American Petroleum Institute  
200 Massachusetts Avenue NW  
Suite 1100  
Washington, DC 20001-5571  
e: [miller@api.org](mailto:miller@api.org)  
p: (202) 682-8159  
[www.api.org](http://www.api.org)

## ASABE

American Society of Agricultural and Biological Engineers  
2950 Niles Road  
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p: (269) 932-7015  
<https://www.asabe.org/>

## ASC X9

Accredited Standards Committee X9, Incorporated  
275 West Street  
Suite 107  
Annapolis, MD 21401  
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## ASCE

American Society of Civil Engineers  
1801 Alexander Bell Dr  
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## ASME

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**ASTM**

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**AWWA**

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**B11**

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**ECIA**

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**ESTA**

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# 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](mailto: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](mailto: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](mailto: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

### ANAESTHETIC AND RESPIRATORY EQUIPMENT (TC 121)

ISO/DIS 27427, Anaesthetic and respiratory equipment - Nebulizing systems and components - 4/12/2021, \$119.00

### BIOTECHNOLOGY (TC 276)

ISO 21709/DAMd1, Biotechnology - Biobanking - Process and quality requirements for establishment, maintenance and characterization of mammalian cell lines - Amendment 1 - 4/12/2021, \$33.00

### BUILDING CONSTRUCTION (TC 59)

ISO/DIS 10591, Building and civil engineering sealants - Determination of adhesion/cohesion properties of sealants after immersion in water - 4/15/2021, \$40.00

ISO/DIS 15928-6, Houses - Description of performance - Part 6: Sustainable development contributions - 4/16/2021, \$53.00

### CONTROL AND SAFETY DEVICES FOR NON INDUSTRIAL GAS-FIRED APPLIANCES AND SYSTEMS (TC 161)

ISO/DIS 23551-9.2, Safety and control devices for gas burners and gas-burning appliances - Particular requirements - Part 9: Mechanical gas thermostats - 3/14/2021, \$88.00

### CRYOGENIC VESSELS (TC 220)

ISO/DIS 21011, Cryogenic vessels - Valves for cryogenic service - 11/8/2025, FREE

### MACHINE TOOLS (TC 39)

ISO/DIS 230-12, Test code for machine tools - Part 12: Accuracy of finished test pieces - 4/11/2021, \$112.00

### MECHANICAL TESTING OF METALS (TC 164)

ISO/DIS 1352, Metallic materials - Torque-controlled fatigue testing - 4/15/2021, \$93.00

### METALLIC AND OTHER INORGANIC COATINGS (TC 107)

ISO/DIS 9220, Metallic coatings - Measurement of coating thickness - Scanning electron microscope method - 4/17/2021, \$58.00

### OPTICS AND OPTICAL INSTRUMENTS (TC 172)

ISO/DIS 10942, Ophthalmic instruments - Direct ophthalmoscopes - 4/15/2021, \$40.00

### PHOTOGRAPHY (TC 42)

ISO/DIS 14548, Photography - Dimensions of glass plates - 4/12/2021, \$40.00

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

ISO/DIS 16486-4, Plastics piping systems for the supply of gaseous fuels - Unplasticized polyamide (PA-U) piping systems with fusion jointing and mechanical jointing - Part 4: Valves - 4/16/2021, \$77.00

### RAILWAY APPLICATIONS (TC 269)

ISO/DIS 22074-8, Railway infrastructure - Rail fastening systems - Part 8: Determination of stiffness - 4/16/2021, \$58.00

### ROAD VEHICLES (TC 22)

ISO/DIS 13209-2, Road vehicles - Open Test sequence eXchange format (OTX) - Part 2: Core data model specification and requirements - 4/10/2021, \$203.00

ISO/DIS 13209-3, Road vehicles - Open Test sequence eXchange format (OTX) - Part 3: Standard extensions and requirements - 4/10/2021, \$230.00

### WELDING AND ALLIED PROCESSES (TC 44)

ISO/DIS 10675-2, Non-destructive testing of welds - Acceptance levels for radiographic testing - Part 2: Aluminium and its alloys - 4/11/2021, \$58.00

## ISO/IEC JTC 1, Information Technology

ISO/IEC DIS 23941, Information technology - Automatic identification and data capture techniques - Rectangular Micro QR Code (rMQR) bar code symbology specification - 4/12/2021, \$155.00

ISO/IEC DIS 24458, Information technology - Automatic identification and data capture techniques - Bar code printer and bar code reader performance testing specification - 4/12/2021, \$125.00

ISO/IEC DIS 20897-2, Information security, cybersecurity and privacy protection - Physically unclonable functions - Part 2: Test and evaluation methods - 4/11/2021, \$88.00

## IEC Standards

2/2042/CD, IEC 60034-30-3 ED1: Rotating electrical machines - Part 30-3 Efficiency classes of high voltage AC motors (IE code), 04/16/2021

18/1709/CDV, IEC 60092-503 ED3: Electrical installations in ships - Part 503: Special features - AC supply systems with voltages in the range of above 1 kV up to and including 15 kV, 04/16/2021

20/1943/CDV, IEC 63294 ED1: Test methods for electric cables with rated voltages up to and including 450/750 V, 04/16/2021

22E/213/CD, IEC 62909-3 ED1: Bi-directional grid connected power converters - Part 3: EMC requirements and test methods, 03/19/2021

22F/617/CD, IEC TR 63368 ED1: Control and protection systems for high-voltage direct current (HVDC) power transmission systems - Off-site real-time testing, 03/19/2021

23B/1349/NP, PNW 23B-1349 ED1: Energy Plug and Energy Socket Outlets, 04/16/2021

33/650/CDV, IEC 60143-2/AMD1 ED2: Amendment 1 - Series capacitors for power systems - Part 2: Protective equipment for series capacitor banks, 04/16/2021

42/389/CD, IEC 62475/AMD1 ED1: Amendment 1 - High-current test techniques - Definitions and requirements for test currents and measuring systems - PROPOSED HORIZONTAL STANDARD, 04/16/2021

42/390/NP, PNW 42-390 ED1: High-voltage test techniques - Dielectric loss measurements, 04/16/2021

45A/1375/CD, IEC 60951-1 ED3: Nuclear facilities - Instrumentation important to safety - Radiation monitoring for accident and post-accident conditions - Part 1: General requirements, 04/16/2021

45A/1376/CD, IEC 60951-3 ED3: Nuclear facilities - Instrumentation important to safety - Radiation monitoring for accident and post-accident conditions - Part 3: Equipment for continuous high range area gamma monitoring, 04/16/2021

45A/1377/CD, IEC 62705 ED2: Nuclear facilities - Instrumentation and control systems important to safety - Radiation monitoring systems (RMS): Characteristics and lifecycle, 04/16/2021

45B/975/NP, PNW 45B-975 ED1: General technical requirements for millimeter wave holographic imaging body scanner, 04/16/2021

46A/1452/CDV, IEC 61196-1-212 ED1: Coaxial communication cables - Part 1-212: Environmental test methods - UV stability, 04/16/2021

46A/1453/CDV, IEC 61196-6 ED2: Coaxial communication cables - Part 6: Sectional specification for CATV drop cables, 04/16/2021

46A/1454/CDV, IEC 61196-6-1 ED2: Coaxial communication cables - Part 6-1: Blank detail specification for CATV drop cables, 04/16/2021

47D/927/NP, PNW 47D-927 ED1: Future 63xxx-3 Ed.1: Thermal standardization on semiconductor packaging - Part 3: Thermal circuit simulation models of semiconductor packages for transient analysis, 04/16/2021

48B/2860/CDV, IEC 63171-6 ED2: Connectors for electrical and electronic equipment - Part 6: Detail specification for 2-way and 4-way (data/power), shielded, free and fixed connectors for power and data transmission with frequencies up to 600 MHz., 04/16/2021

48B/2863(F)/FDIS, IEC 63171 ED1: Connectors for electrical and electronic equipment - Shielded or unshielded free and fixed connectors for balanced single-pair data transmission with current-carrying capacity - General requirements and tests, 02/05/2021

56/1912/CD, IEC 63142 ED1: A global methodology for reliability data prediction of electronic components, 03/19/2021

59/753(F)/FDIS, IEC 60704-1 ED4: Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1: General requirements, 02/05/2021

62B/1232/FDIS, IEC 60601-2-63/AMD2 ED1: Amendment 2 - Medical electrical equipment - Part 2-63: Particular requirements for the basic safety and essential performance of dental extra-oral X-ray equipment, 03/05/2021

62B/1233/FDIS, IEC 60601-2-65/AMD2 ED1: Amendment 2 - Medical electrical equipment - Part 2-65: Particular requirements for the basic safety and essential performance of dental intra-oral X-ray equipment, 03/05/2021

65C/1071/CDV, IEC 61918/AMD1 ED4: Amendment 1 - Industrial communication networks - Installation of communication networks in industrial premises, 04/16/2021

65C/1081/CD, IEC 61139-2 ED1: Industrial networks - Single-drop digital communication interface - Part 2: Functional safety extensions, 04/16/2021

86C/1708(F)/FDIS, IEC 61280-2-8 ED2: Fibre optic communication subsystem test procedures - Part 2-8: Digital systems - Determination of low BER using Q-factor measurements, 02/05/2021

99/307/CD, IEC 63313-1 ED1: Insulation co-ordination for HVDC system - Part 1: Definitions, principles and rules, 04/16/2021

99/308/CD, IEC 63313-2 ED1: Insulation co-ordination for HVDC system - Part 2: Application guidelines for line-commutated converter (LCC) stations, 04/16/2021

100/3543/CDV, IEC 60958-3 ED4: Digital audio interface - Part 3: Consumer applications (TA 20), 04/16/2021

100/3544/CDV, IEC 60958-1 ED4: Digital audio interface - Part 1: General (TA 20), 04/16/2021

104/891(F)/FDIS, IEC 60068-2-38 ED3: Environmental testing - Part 2 -38: Tests - Test Z/AD: Composite temperature/humidity cyclic test, 02/19/2021

116/486/CDV, IEC 62841-3-6/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-6: Particular requirements for transportable diamond drills with liquid system, 04/16/2021

116/487/CDV, IEC 62841-3-10/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-10: Particular requirements for transportable cut-off machines, 04/16/2021

116/488/CDV, IEC 62841-3-12/AMD1 ED1: Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-12: Particular requirements for transportable threading machines, 04/16/2021

124/125/CDV, IEC 63203-406-1 ED1: Wearable electronic devices and technologies - Part 406-1: Test method for measuring surface temperature of wrist worn wearable electronic devices while in contact with human skin, 04/16/2021

126/27/CDV, IEC 63277 ED1: Performance test method of binary power generation systems with the capacity less than 100kW, 04/16/2021

SyCAAL/207/CDV, IEC 63168-1 ED1: Cooperative multiple systems in connected home environments - AAL functional safety requirements of electronic safety-related systems - Part 1: General requirements for design and development, 04/16/2021

SyCAAL/208/CDV, IEC 63168-2 ED1: Cooperative multiple systems in connected home environments - AAL functional safety requirements of electronic safety-related systems - Part 2: Concept phase of product design, 04/16/2021

SyCAAL/209/CDV, IEC 63168-3 ED1: Cooperative multiple systems in connected home environments - AAL functional safety requirements of electronic safety-related systems - Part 3: Product development, 04/16/2021

SyCAAL/210/CDV, IEC 63168-4 ED1: Cooperative multiple systems in connected home environments - AAL functional safety requirements of electronic safety-related systems - Part 4: Production, operation, modification and supporting process, 04/16/2021

SyCSmartCities/180/CD, IEC SRD 63273 ED1: Systems Reference Deliverable (SRD) - Use Case Collection and Analysis: City Information Modeling for Smart Cities, 04/16/2021

JTC1-SC25/3006/CD, ISO/IEC 15067-3-31 ED1: Information technology - Home Electronic System (HES) application model - Protocol of Energy Management Agents for demand response energy management and interactions among these agents, 04/16/2021



# Newly Published ISO & IEC Standards

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

## ISO Standards

### AGRICULTURAL FOOD PRODUCTS (TC 34)

[ISO 24081:2021](#), Ground cassava leaves (Isombe) - Specification, \$45.00

[ISO 16140-3:2021](#), Microbiology of the food chain - Method validation - Part 3: Protocol for the verification of reference methods and validated alternative methods in a single laboratory, \$209.00

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

[ISO 10993-12:2021](#), Biological evaluation of medical devices - Part 12: Sample preparation and reference materials, \$138.00

[ISO 10993-23:2021](#), Biological evaluation of medical devices - Part 23: Tests for irritation, \$209.00

### FINE BUBBLE TECHNOLOGY (TC 281)

[ISO 20480-4:2021](#), Fine bubble technology - General principles for usage and measurement of fine bubbles - Part 4: Terminology related to microbubble beds, \$45.00

### IMPLANTS FOR SURGERY (TC 150)

[ISO 5840-1:2021](#), Cardiovascular implants - Cardiac valve prostheses - Part 1: General requirements, \$209.00

[ISO 5840-2:2021](#), Cardiovascular implants - Cardiac valve prostheses - Part 2: Surgically implanted heart valve substitutes, \$209.00

[ISO 5840-3:2021](#), Cardiovascular implants - Cardiac valve prostheses - Part 3: Heart valve substitutes implanted by transcatheter techniques, \$209.00

### OTHER

[ISO 23864:2021](#), Non-destructive testing of welds - Ultrasonic testing - Use of automated total focusing technique (TFM) and related technologies, \$162.00

[ISO 23865:2021](#), Non-destructive testing - Ultrasonic testing - General use of full matrix capture/total focusing technique (FMC/TFM) and related technologies, \$185.00

### PLASTICS (TC 61)

[ISO 22841:2021](#), Composites and reinforcements fibres - Carbon fibre reinforced plastics (CFRPs) and metal assemblies - Determination of the tensile lap-shear strength, \$68.00

### ROAD VEHICLES (TC 22)

[ISO 8092-5:2021](#), Road vehicles - Connections for on-board electrical wiring harnesses - Part 5: Test methods and general performance requirements for wiring harness connector operation, \$68.00

### RUBBER AND RUBBER PRODUCTS (TC 45)

[ISO 3861:2021](#), Rubber hoses and hose assemblies for sand and grit blasting - Specification, \$68.00

### TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)

[ISO 22868:2021](#), Forestry and gardening machinery - Noise test code for portable hand-held machines with internal combustion engine - Engineering method (Grade 2 accuracy), \$185.00

## ISO Technical Reports

### FIRE SAFETY (TC 92)

[ISO/TR 16312-2:2021](#), Guidance for assessing the validity of physical fire models for obtaining fire effluent toxicity data for fire hazard and risk assessment - Part 2: Evaluation of individual physical fire models, \$185.00

### SAFETY OF MACHINERY (TC 199)

[ISO/TR 22100-5:2021](#), Safety of machinery - Relationship with ISO 12100 - Part 5: Implications of artificial intelligence machine learning, \$45.00

## ISO Technical Specifications

### HEALTH INFORMATICS (TC 215)

[ISO/TS 22272:2021](#), Health Informatics - Methodology for analysis of business and information needs of health enterprises to support standards based architectures, \$209.00



**NANOTECHNOLOGIES (TC 229)**

[ISO/TS 23459:2021](#), Nanotechnologies - Assessment of protein secondary structure during an interaction with nanomaterials using ultraviolet circular dichroism, \$138.00

**IEC Standards****AUDIO, VIDEO AND MULTIMEDIA SYSTEMS AND EQUIPMENT (TC 100)**

[IEC 62546 Ed. 1.0 b:2009](#), High definition (HD) recording link guidelines, \$199.00

[IEC 62875 Ed. 1.0 b:2015](#), Multimedia systems and equipment - Multimedia e-publishing and e-book technologies - Printing specification of texture map for auditory presentation of printed texts, \$82.00

[IEC 62087-6 Ed. 1.0 b:2015](#), Audio, video, and related equipment - Determination of power consumption - Part 6: Audio equipment, \$164.00

[IEC 60728-7-3 Ed. 2.0 b:2009](#), Cable networks for television signals, sound signals and interactive services - Part 7-3: Hybrid fibre coax outside plant status monitoring - Power supply to transponder interface bus (PSTIB), \$235.00

**ELECTRICAL EQUIPMENT IN MEDICAL PRACTICE (TC 62)**

[IEC 60601-1-SER Ed. 1.0 b:2021](#), Medical electrical equipment - ALL PARTS, \$4789.00

[IEC 60601-1-3 Amd.2 Ed. 2.0 b:2021](#), Amendment 2 - Medical electrical equipment - Part 1-3: General requirements for basic safety and essential performance - Collateral Standard: Radiation protection in diagnostic X-ray equipment, \$12.00

[IEC 60601-1-3 Ed. 2.2 b:2021](#), Medical electrical equipment - Part 1-3: General requirements for basic safety and essential performance - Collateral Standard: Radiation protection in diagnostic X-ray equipment, \$410.00

**FIBRE OPTICS (TC 86)**

[IEC 60794-3-12 Ed. 3.0 b:2021](#), Optical fibre cables - Part 3-12: Outdoor cables - Detailed specification for duct and directly buried optical telecommunication cables for use in premises cabling, \$23.00

[S+ IEC 60794-3-12 Ed. 3.0 en:2021 \(Redline version\)](#), Optical fibre cables - Part 3-12: Outdoor cables - Detailed specification for duct and directly buried optical telecommunication cables for use in premises cabling, \$31.00

**SURFACE MOUNTING TECHNOLOGY (TC 91)**

[IEC 61189-5-501 Ed. 1.0 b:2021](#), Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 5-501: General test methods for materials and assemblies - Surface insulation resistance (SIR) testing of solder fluxes, \$117.00

**IEC Technical Specifications****ELECTROMECHANICAL COMPONENTS AND MECHANICAL STRUCTURES FOR ELECTRONIC EQUIPMENTS (TC 48)**

[IEC/TS 62966-3 Ed. 1.0 en:2021](#), Mechanical structures for electrical and electronic equipment - Aisle containment for IT cabinets - Part 3: Aspects of operational and personal safety, \$117.00

**LAMPS AND RELATED EQUIPMENT (TC 34)**

[IEC/TS 63105 Ed. 1.0 en:2021](#), Lighting systems and related equipment - Vocabulary, \$47.00

# Accreditation Announcements (U.S. TAGs to ISO)

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## **Public Review of Application for Accreditation of a U.S. TAG to ISO**

### **U.S. Technical Advisory Group (TAG) to ISO TC 333, Lithium**

**Comment Deadline: March 1, 2021**

The CSA Group, an ANSI Member and Accredited Standards Developer (ASD), has submitted an Application for Accreditation for a new proposed U.S. Technical Advisory Group (TAG) to ISO TC 333, Lithium, and a request for approval as TAG Administrator. The proposed TAG intends to operate using the Model Operating Procedures for U.S. Technical Advisory Groups to ANSI for ISO Activities as contained in Annex A of the ANSI International Procedures.

To obtain a copy of the TAG application or to offer comments, please contact: Mr. Brian Zupancic, Project Manager, Natural Resources, CSA Group, 8501 E. Pleasant Valley Road, Cleveland, OH 44131; phone: 216.524.4990 ext. 88040; email: [brian.zupancic@csagroup.org](mailto:brian.zupancic@csagroup.org). Please submit your comments to CSA Group by March 1, 2021 (please copy [jthompso@ansi.org](mailto:jthompso@ansi.org)).

# International Organization for Standardization (ISO)

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## Call for Comment on ISO Standard

### ISO 26000 - Guidance on Social Responsibility Activity

**Comment Deadline: January 29, 2021**

ISO standard ISO 26000, Guidance on social responsibility, has been circulated to ISO members for its systematic review to determine whether the standard should be revised, reconfirmed, or withdrawn.

ISO 26000, last confirmed in November 2010, is intended to help organizations effectively assess and address social responsibilities that are relevant and significant to their mission and vision; operations and processes; customers, employees, communities, and other stakeholders; and environmental impact. ISO 26000 provides detailed guidance for organizations that are willing to implement the OECD Guidelines but is not meant for ISO certification.

ANSI is seeking U.S. Stakeholders' input on ISO 26000 to help ANSI determine if ANSI should vote revise, reconfirm as is, or withdraw the standard. Anyone wishing to review ISO 26000 can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, January 29, 2021.

## ISO Proposal for a New Field of ISO Technical Activity

### Assistance Dogs

**Comment Deadline: February 26, 2021**

NEN, the ISO member body for [Netherlands], has submitted to ISO a proposal for a new field of ISO technical activity on Assistance Dogs, with the following scope statement:

Standardization in the field of assistance dogs focused on, but not limited to:

- terminology
- health and welfare
- breeding and puppy development
- training
- client services
- assistance dog professionals
- conformity assessment, and
- accessibility

Assistance dogs are specifically trained to perform tasks to increase independence and to mitigate limitations of a person with a disability.

Excluded are:

- dogs that offer only emotional support and/or comfort (i.e. emotional support dogs)
- dog assisted interventions such as facility dogs or dog assisted therapy
- other kinds of working dogs such as herding dogs, police dogs, search & rescue dogs

Background information:

An assistance dog is permanently paired with a person with a disability to perform on a one-to-one basis tasks to mitigate the limitations of this person.

Please note that 'assistance dog' is the umbrella term. Examples of assistance dogs (in alphabetical order) are autism assistance dogs, developmental disorder assistance dogs, diabetes assistance dogs, guide dogs, hearing dogs, medical alert/response assistance dogs, mobility assistance dogs, PTSD assistance dogs, seizure assistance dogs.

In some countries, an assistance dog is referred to as a service dog.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, February 26, 2021.

# Registration of Organization Names in the United States

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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

### DISH Wireless

#### Comments Deadline: February 12, 2021

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

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## Call for Comment

U.S. manufacturers, exporters, regulatory agencies and standards developing organizations 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 proposed technical regulations that may significantly affect trade to the WTO Secretariat in Geneva, Switzerland. In turn the Secretariat issues and makes available these notifications. 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 Inquiry Point for the WTO TBT Agreement is located at the National Institute of Standards and Technology (NIST) in the Standards Coordination Office (SCO). The Inquiry Point distributes the notified proposed foreign technical regulations (notifications) and makes the associated full-texts available to U.S. stakeholders via its online service, Notify U.S. Interested U.S. parties can register with Notify U.S. to receive e-mail alerts when notifications are added from countries and industry sectors of interest to them. To register for Notify U.S., please visit: <http://www.nist.gov/notifyus/>

The USA WTO TBT Inquiry 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 available on Notify U.S. at: <https://tsapps.nist.gov/notifyus/data/guidance/guidance.cfm> prior to submitting comments.

For further information about the USA TBT Inquiry Point, please visit: <https://www.nist.gov/standardsgov/what-we-do/trade-regulatory-programs/usa-wto-tbt-inquiry-point> Contact the USA TBT Inquiry Point at (301) 975-2918; F: (301) 926-1559; E: [usatbtep@nist.gov](mailto:usatbtep@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).



**BSR/ASHRAE/IES Addendum u  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum u to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**First Public Review (February 2020)  
(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](http://www.ashrae.org/standards-research--technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://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](http://www.ashrae.org).

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

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

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

## FOREWORD

This addendum proposes changes to Section 11 to address the Budget HVAC systems economizer requirements and requirements for determining budget HVAC equipment capacities for the purpose of evaluating when prescriptive requirements in Section 6 apply to the energy cost budget when thermal zones are combined as a part of simplifying the energy modeling process.

### Budget System Economizer change

The current requirement for the budget HVAC systems economizer depends on the economizer type specified in the proposed design. Since the economizer is a prescriptive requirement, the proposed design can be without economizer and under these circumstances it is unclear which economizer (air or fluid) is needed for the budget system. The type of budget system economizer should be better defined and not vague. This proposed addendum clarifies which economizer to use in the budget system.

The original 1999 ASHRAE 90.1, section 11 /ECB, 2<sup>nd</sup> PRD (from December 1997) required only Air economizer for the budget systems. But in the “official” 1999 ASHRAE 90.1, this requirement was modified, and air economizer was required for systems 1 thru 4 and systems 8 thru 11. Water economizer was required for systems 5 (two pipe fan coil), 6 (WSHP) and 7 (four pipe fan coil). In the 2001 ASHRAE 90.1 section 11 the economizer requirements were changed after addendum ap with the intent to clarify the economizer requirements. This change did not clarify the economizer requirement but changed the intent of the standard suggesting that the budget system economizer will be the same as the economizer in the proposed design. The proposed modification specifically defines the budget system economizer as air economizer and eliminates the fluid economizer which can be problematic from modeling standpoint.-The selected economizer will be in accordance with section 6.5.1

It should be noted that the application of water economizer for budget system 6 (WSHP) might require lower water temperature (suggested 45 Deg F set point by several vendors) which can impact the efficient operation of the units in heating mode. In addition, having a water economizer for WSHP system is the addition of additional water (pre) cooling coil upstream to the standard Direct Expansion (DX) coil which adds additional pressure drop that negatively affects the unit fan power. IC 90.1-2010-15, (June 23, 2012, Mick Schwedler) discusses the impact of the water economizer on heating mode, but no detailed information found on the total impact including the fan power. Since no detailed information to compare air economizer vs water economizer is available, it is suggested to apply only air economizers in budget system 6 (WSHP)

### Budget System Capacity change

The language that is being modified by the proposed change was originally added to Section 11 in order to align with Section G3.1.2.1 and describes the methodology for determining budget system capacity in cases when multiple thermal blocks that may be served by different HVAC systems in the propose design are aggregated as allowed in the exception to Table 11.5.1 Column A #7. However, this added language did not reflect the differences between budget HVAC system mapping in Section 11, which requires establishing a budget HVAC system for each HVAC system in the proposed design, and the Appendix G baseline HVAC system mapping that requires modeling a system per zone or one system per floor depending on the proposed building type and size. The proposed change fixes this issue, moves the

rules from subsection c (fan power) to subsection i (equipment capacity) and adds references into subsection e (economizers) and subsection c (equipment efficiency).

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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

## Addendum u to 90.1-2019

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Modify the standard as follows (I-P and SI Units)

### 11.5.2 HVAC Systems

The *HVAC system* type and related performance parameters for the *budget building design* shall be determined from Figure 11.5.2, the *system* descriptions in Table 11.5.2-1 and accompanying notes, and the following rules:

- a. **Budget Building Systems Not Listed.** Components and parameters not listed in Figure 11.5.2 and Table 11.5.2-1 or otherwise specifically addressed in this subsection shall be identical to those in the *proposed design*.

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#### Exception to 11.5.2(a)

Where there are specific requirements in Sections 6.4 and 6.5, the component *efficiency* in the *budget building design* shall be adjusted to the lowest *efficiency* level allowed by the requirement for that component type.

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- b. **Minimum Equipment Efficiency.** All HVAC and *service water-heating equipment* in the *budget building design* shall be modeled at the minimum *efficiency* levels, both part load and full load, in accordance with Sections 6.4 and 7.4 based on the budget system type determined following Section 11.5.2(j) and capacity determined following Section 11.5.2(i). Chillers shall use Path A efficiencies as shown in Table 6.8.1-3.
- c. **Supply Fan Energy in Certain Package Equipment.** Where *efficiency* ratings include supply fan energy, the *efficiency* rating shall be adjusted to remove the supply fan energy. For Budget System Types 3, 4, 6, 8, 9, 10, and 11, calculate the minimum  $COP_{nfcooling}$  and  $COP_{nfheating}$  using the equation for the applicable performance rating as indicated in Tables 6.8.1-1, 6.8.1-2, through 6.8.1-4 and 6.8.1-15. ~~Where multiple HVAC zones are combined into a single thermal block in accordance with Table 11.5.1, the efficiencies for budget System Types 6, 8, and 10 taken from Tables 6.8.1-1 through 6.8.1-4, shall be based on 9,000 Btu/hr2.6 kW equipment capacity for residential spaces otherwise it shall be based on the capacity of the thermal block divided by the number of HVAC zones. Budget System Types 3, 4, 9, and 11 efficiencies taken from Table 6.8.1-1 through 6.8.1-4 shall be based on the cooling equipment capacity of a single floor when grouping identical floors in accordance with Table 11.5.1. Where a full- and part-load efficiency rating is provided in Tables 6.8.1-1, 6.8.1.2, through 6.8.1-4 and 6.8.1-15, the full-load equation below shall be used:~~  
...  
e. **Economizers.** ~~All b~~ Budget building systems as listed in Table 11.5.2-1 shall have *air economizers* ~~or fluid economizers, the same as in the proposed design,~~ in accordance with Section 6.5.1 and Section 11.5.2(i). The high-limit shutoff shall be in accordance with Table 11.5.2-4.  
...  
i. **Equipment Capacities.** The *equipment* capacities for the *budget building design* shall be sized proportionally to the capacities in the *proposed design* based on sizing runs, i.e., the ratio between the



capacities used in the annual simulations and the capacities determined by the sizing runs shall be the same for both the *proposed design* and *budget building design*. Where multiple HVAC zones are combined into a single *thermal block* or modeled as identical *thermal blocks* to which multipliers are applied in accordance with Table 11.5.1, the *equipment* capacities for the *budget building design* shall be determined as follows:

1. For Budget System Types 8 and 10 *equipment* capacity shall be 9000 Btu/h (2.6 kW).
2. For Budget System Types 5, 6, 7, 9 and 11 *equipment* capacity shall be based on the load of the *thermal block* divided by the number of combined *HVAC zones*.
3. For Budget System types 1, 2, 3 and 4 the *equipment* capacity shall be based on the total load of all associated *thermal blocks*, including multipliers, divided by the total number of corresponding *HVAC systems* specified in the design documents.

*Unmet load hours* for the *proposed design* or *baseline building designs* shall not exceed 300 hours (of the 8760 hours simulated)....

**Table 11.5.2-1 Budget System Descriptions**

**e. Chilled Water:**

...

~~Except during economizer operation,~~ the tower shall be controlled to maintain a cooling tower leaving water temperature, where weather permits, per Table 11.5.2-5, floating up to the design leaving water temperature for the cooling tower. *Pump system power* for each pumping system shall be the same as the *proposed design*; if the *proposed design* has no condenser water pumps, the *budget building design* pump power shall be 19 W/gpm [301 kW/1000 L/s] (equal to a pump operating against a 60 ft [18 m] head, 60% combined impeller and motor *efficiency*). Each chiller shall be modeled with separate condenser water and chilled-water pumps interlocked to operate with the associated chiller.

...

**Table 11.5.2-4 Economizer High-Limit Shutoff**

Economizer Type	High-Limit Shutoff
Air	Table 6.5.1.1.3
Fluid (integrated)	When its operation will no longer reduce <i>HVAC system energy</i>



**BSR/ASHRAE/IES Addendum v  
to ANSI/ASHRAE/IES Standard 90.1-2019**

**Public Review Draft**

# **Proposed Addendum v to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings**

**First Public Review (February 2020)  
(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](http://www.ashrae.org/standards-research--technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://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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**(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)**

## FOREWORD

The proposed change clarifies documentation that must be submitted to the rating authority or jurisdiction by projects following Section 11 and Appendix G and clarifies that code authorities may request the simulation files for the baseline/budget and proposed design models which is already allowed in Section 4.2.2.2 which reads:

“Supplemental information necessary to verify compliance with this standard, such as calculations, worksheets, compliance forms, vendor literature, or other data, shall be made available when required by the building official.”

This is also consistent with the current requirements for the exceptional calculation methods in Sections G2.5 (b) and 11.4.5 (b) which call for “Copies of all spreadsheets used to perform the calculations.” This will allow jurisdictions and rating authorities to open the model files, if desired, in the simulation tool that was used to create the models, to facilitate a detailed review.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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

## Addendum v to 90.1-2019

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*Modify the standard as follows (I-P and SI Units)*

### 11.7.2 Permit Application Documentation

Compliance shall be documented and submitted to the *building official*. The information submitted shall include the following:

...

d. A list of the *energy*-related features that are included in the design and on which compliance with the provisions of Section 11 is based. This list shall document all *energy* features that differ between the models used in the *energy cost*

...

j. ~~The input and output r~~Reports from the *simulation program* showing:

1. including a breakdown of *energy* usage by at least the following components: lights, internal *equipment* loads, *service water-heating equipment*, *space-heating equipment*, *space cooling* and heat rejection *equipment*, fans, and other HVAC *equipment* (such as pumps).

2. The output reports shall also show the amount of time any loads are not met by the *HVAC system* for both the *proposed design* and *budget building design*.

3. description of energy-related features of the *budget building design* and the *proposed design* to support requirements of Section 11.7.2 (d).

...  
p. Simulation input files for the *budget building design* and the *proposed design* shall be made available if requested by the *building official*.

...  
**G1.3.2 Application Documentation**

Simulated performance shall be documented, and documentation shall be submitted to the *rating authority*. The information shall be submitted in a report and shall include the following:

...  
c. A list of the *energy*-related features that are included in the design and on which the performance rating is based. This list shall document all *energy* features that differ between the models used in the *baseline building performance* and *proposed building performance* calculations.

- ...  
l. ~~Input and output reports from the *simulation program* or compliance software, including the following showing:~~
1. a breakdown of *energy* use by at least the following components: lights, internal *equipment* loads, *service water-heating equipment*, *space-heating equipment*, *space-cooling* and *heat rejection equipment*, fans, and other HVAC *equipment* (such as pumps).
  2. ~~The output reports shall also show the amount of *unmet load hours* for both the *proposed design* and *baseline building design*.~~
  3. description of *energy*-related features of the *baseline building design* and the *proposed design* to support requirements of Section G1.3.2 (c).

...  
r. Simulation input files for the *budget building design* and the *proposed design* shall be made available if requested by the *rating authority*

...

## ASSP Z359.14, Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems

**1.4.2 Class 2.** Self-retracting devices which are intended for applications wherein overhead anchorages may not be available or feasible and which ~~shall~~**may, in practical application,** be subjected to a free fall of no less than 6 feet (1.8m), over an edge prescribed in Section 4.

**3.2.3 Locking Strength.** When tested in accordance with 4.2.3, devices not featuring a rotary brake energy management system, shall withstand, without breaking **and releasing the load,** a minimum static load of 1,800 pounds (8kN).

**3.3.3 Dynamic Performance for SRDs - Class 2.** ~~Having first met the requirements of 3.3.1,~~ Class 2 SRDs shall be tested in accordance with ~~4.3.1 and~~ 4.3.3:

**3.3.4.3 Rescue, Post Fall Arrest.** When tested in accordance with 4.3.4.3, the SRL-R in rescue mode shall raise, lower and hold the load as intended after the device has arrested the test weight. When operating control is released, the load shall stop within 4 inches (102mm) of travel. Additionally, the requirements of this section shall be met after conditioning in accordance with the environmental conditioning procedures given in ~~4.3.4.3.1 4.3.1.7, 4.3.4.3.2 4.3.1.8 and 4.3.4.3.3 4.3.1.9.~~ A new SRL-R may be used for each conditioning test.

**4.1.1 Test Weight.** The test weight for dynamic performance testing shall be of a rigid construction in accordance with the example set forth in Figure 3a. The test weight shall weigh 310 pounds (141kg) ± 2 pounds (1kg). Alternatively, an adjustable test weight system may be constructed using figures 3b, 3c, 3d and commercially available athletic weight plates, provided that the aforementioned tolerances are maintained and the plates are sufficiently constrained such that there is **no** movement during dynamic testing.

**4.1.6 Class 2 Structural Edge Substrate.** For dynamic testing of Class 2 devices, the material used for the edge test shall be 3/8 x 3 inch (9.5 x 76mm) or larger size 1018 cold finished steel bar in accordance with ASTM A108. Additionally, the edge material shall be inspected for edge radius over its length at intervals of ~~approximately~~ 12 inches (300mm). Only edges that have measured radii not greater than 0.005 inches (0.13mm) shall be used for testing. Unless it can be shown by inspection that the edge radius remains within specification, the ~~loading~~-edge material must be replaced prior to each test. See Figures 5a and 12.

**4.2.1 Static Testing of Self-Retracting Devices.** Shorten the constituent line, if necessary, to allow installation in the static tensile test equipment specified in 4.1.2. See Figure 8. With the SRD constituent fully extracted, install the device in the tensile test equipment and apply a minimum load of 3,600 pounds (16kN). Time to reach the load shall be no less than one minute to avoid dynamic effects. The load shall be maintained for a period of no less than one minute. Compare the results with the requirements of 3.2.1.

**4.3.4.3 Rescue, Post Fall Arrest Testing of SRL-R.** This test procedure is conducted following the dynamic performance testing as set forth in 4.23.1. With the test weight suspended on the lifeline, engage the device in rescue mode according to the manufacturer's instructions. Raise the test weight half the arrest distance or sufficient to allow lowering. Release the crank handle

and verify that the test weight stops and holds position by using the method described in 4.3.4.1. Lower the test weight to the ground. Repeat this test for each environmental conditioning procedures in 4.3.4.3.1, 4.3.4.3.2, and 4.3.4.3.3. Compare the test results with the requirements set forth in 3.3.4.3.

**4.3.4.4 Static Strength Testing of SRL-R.** Attach the SRL-R to the static tensile test equipment in accordance with the manufacturer's instructions such that load is applied through the device as in use. Engage the SRL-R into rescue mode and apply a load of 3,600 +60/-0 pounds (16.0 +.26/-0kN) using the static tensile test equipment as set forth in section 4.12.1. At least 90% of the working length shall be retracted into the device. It is permissible to fix the crank handle to allow application of the load. The time to reach the test load shall be greater than 30 seconds to avoid dynamic effects. Sustain the load for a period of one minute. Compare the test results with the requirements set forth in section 3.3.4.4.

**4.4.2** Attach the load cell (transducer) to the drop test structure specified in 4.1. Anchor the SRL or SRL-R to the load cell according to manufacturer's instructions. Connect the 310-pound (140kg) test weight specified in 4.1.71 to the attachment-end connector on the constituent line.

**5.1.3** Self-retracting devices shall be marked to identify:

- part number and model designation;
- year of manufacture;
- manufacturer's name or logo;
- capacity range, including clothing, tools and equipment (130 lbs to 310 lbs);
- maximum allowable free fall distance;
- unique ID number;
- standard number (Z359.14-202X);
- how to inspect visual indicator;
- warning to follow the manufacturer's instructions included with the equipment at time of shipment from the manufacturer;
- warning of the need for inspection in accordance with the manufacturer's instructions;
- the fiber or other materials used in the lanyard construction and any limitations of such materials;
- the lanyard working length;
- maximum arresting force ~~for the SRD Class;~~
- average arresting force ~~for the SRD Class;~~
- arrest distance;
- guidance with respect to clearance requirements;
- proper installation means;
- warning of the need for testing of the device for locking and retraction before each use;

- warning of the need to avoid lanyard contact with sharp edges and abrasive surfaces (not required for Class 2 SRDs);
- ~~free fall limit;~~
- suitability for use with horizontal lifelines;
- suitability for horizontal use.

**5.1.7 Class 2 SRLs.** In addition to the requirements of 5.1.6, Class 2 SRLs shall include labels illustrating a fall clearance table and a diagram of the axes shown on the table. These labels shall be affixed to the product, preferably at or near the point of attachment to the full body harness. ~~integral energy absorber on the constituent line.~~ See Figures 15 and 16.

**5.2.2** Instructions shall contain the following information:

- a statement that the manufacturer's instructions shall be provided to users;
- manufacturer's name, address and telephone number;
- manufacturer's part number or model designation for the equipment;
- intended use and purpose of the equipment;
- proper method of use and limitations on use of the equipment;
- illustrations showing locations of markings on the equipment;
- reproduction of printed information on all markings;
- inspection procedures required to assure the equipment is in serviceable condition and operating correctly;
- anchorage requirements;
- criteria for discarding equipment which fails inspection;
- procedures for cleaning, maintenance and storage;
- reference to the Z359 standards and applicable regulations governing occupational safety;
- proper installation means and limitations on the type of anchorage connectors used, if any;
- the diameter of rope or wire rope, and width and thickness of webbing used in the lanyard;
- the fiber or other materials used in the lanyard construction;
- the lanyard length;
- suitability for use with horizontal lifelines, deforming or flexible anchorages;
- the maximum and average arresting force when dynamically tested in ambient conditions, in accordance with the requirements of this standard;
- the arrest distance when dynamically tested in accordance with the requirements of this standard;
- how to determine fall clearance, which shall include a safety margin;
- testing of the device for locking before each use.

**6.1.4** When an inspection reveals:

- defects in equipment; or
- damage to equipment; or
- inadequate maintenance of equipment; or
- activated visual indicators; or
- activated warning systems or devices;

ASSP Z359.14, Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems

- failure to lock when the constituent line is pulled out rapidly, so as to simulate a fall arrest.



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## NSF/ANSI Standard For Wastewater Technology –

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### 8.4 Analytical descriptions

#### 8.4.1 pH, TSS, BOD<sub>5</sub>, and CBOD<sub>5</sub>

The pH, TSS, and BOD<sub>5</sub> of the collected influent and the pH, TSS and CBOD<sub>5</sub> of the collected effluent 24-hour composite samples shall be determined with the appropriate methods in *Standard Methods* for each listed parameter. Grab samples shall be collected during the morning dosing period for gravity flow systems and during a time of discharge for systems that are pump discharged.

NOTE — *Standards Methods* requires pH and temperature to be sampled as grab samples.

#### 8.4.2 Color, odor, oily film, and foam

##### 8.4.2.1 General

Three composite effluent samples shall be tested during the 6-month evaluation period.

##### 8.4.2.2 Color

The apparent color of an undiluted effluent sample shall be determined with the visual comparison method described in Method 2120 B of *Standard Methods*.

##### 8.4.2.3 Odor

The odor of undiluted effluent sample shall be determined by a panel consisting of at least five evaluators tested in accordance with Method 2150 B of *Standard Methods*.

##### 8.4.2.4 Oily film and foam

~~Diluted~~ **Undiluted** effluent sample aliquots shall be visually evaluated for the presence of an oily film or foaming.

*Rationale: harmonizes with 40i37r1 – odor and color which recently approved and incorporated into the standard but unintentionally omitted this change*

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## 8.5 Criteria

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### 8.5.2.3 Color, odor, oily film, and foam

#### 8.5.2.3.1 Color

The color rating of each of the three undiluted composite effluent samples shall be reported. There are no criteria that these values shall meet.

#### 8.5.2.3.2 Odor

The odor rating of each of the three undiluted composite effluent samples shall be reported. There are no criteria that these values shall meet.

#### 8.5.2.3.3 Oily film and foam

Oily films and foaming shall not be visually detected in any of the undiluted composite effluent samples.

*Rationale: harmonizes with 40i37r1 – odor and color which recently approved and incorporated into the standard but unintentionally omitted this change*

## 8.5.3 Class II systems

The following criteria shall be met in order for a system to be classified as a Class II residential wastewater treatment system.

### 8.5.3.1 CBOD<sub>5</sub>

Not more than 10% of the effluent CBOD<sub>5</sub> values shall exceed 60 mg/L.

### 8.5.3.2 TSS

Not more than 10% of the effluent TSS values shall exceed 100 mg/L.

## 8.5.4 Air pressure and flow

There are no criteria for aerator pressure or flow. Pressure and flow are measured for the purpose of qualifying alternate aerators following the test.

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NSF/ANSI Standard  
for Biosafety Cabinetry

## Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

### 6 Performance

#### 6.1 General

For qualification by the testing organization, BSCs shall meet the performance requirements listed in Sections 6.2 through 6.15, when tested in accordance with Annex N-1. All removable components within the cabinet that are offered as optional equipment by the manufacturer shall be in place during testing except during nominal set point downflow velocity determination.

#### 6.14 Electrical safety

The cabinet shall be tested by a ~~Nationally Recognized Testing Laboratory (NRTL)~~ **an authorized testing laboratory** for compliance to the requirements of the current edition of any national standard ~~that is based on IEC 61010-1.~~ For the purposes of this requirement, an “authorized testing laboratory” shall be either a U.S. Occupational Safety and Health Administration Nationally Recognized Testing Laboratory (NRTL) or an International Electrotechnical Commission for Electrical Equipment CB Testing Laboratory (CBTL). Compliance is demonstrated by ~~NRTL~~ **product certification**, (requires at least annual ~~NRTL~~ audits to maintain ~~cabinet design~~ **electrical safety certification**) and cabinet listing, i.e., UL, CSA or IECCE CB Scheme certificate.

***Rationale:** language in this section requires an electrical certification by a Nationally Recognized Testing Laboratory (NRTL). The NRTL program is North American based which may hinder international electrical testing laboratories that may be equal to or better than those in North America.*

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NSF/ANSI Standard  
for Drinking Water Treatment Units –

## Ultraviolet Microbiological Water Treatment Systems

### Normative Annex 1

#### Ultraviolet water treatment systems microbial reduction – MS-2 and T1 procedures

##### N-1.7.1.3 Phage top agar ~~4% TSA~~ **TSB + 1%**.

Ingredient	Amount
tryptone	7.5 g
soytone	2.5 g
sodium chloride	2.5 g
agar	5.0 g
DI Water	500 mL
pH	7.3 ± 0.2

Add 1% of bacto-agar into the mixture of Tryptic Soy Broth (TSB). ~~TSA~~ **TSB + 1%** shall be dissolved by boiling, adjusted to final pH, and autoclaved at  $121 \pm 1$  °C ( $250 \pm 1.8$  °F) at 15 psi for ~~20~~ **15** min. Agar shall be stored at  $5 \pm 3$  °C ( $41 \pm 5.4$  °F). On the day of testing, the ~~TSA~~ **TSB + 1%** shall be liquefied and placed in the  $45 \pm 1$  °C ( $113 \pm 1.8$  °F) water bath. The MS-2 coliphage top agar shall be maintained at  $45 \pm 1$  °C ( $113 \pm 1.8$  °F) to prevent agar solidification.

### N-1.8 Culture of challenge organisms

#### N-1.8.1 MS-2 coliphage

##### N-1.8.1.1 Stock culture preparation of MS-2 coliphage

c) Serial dilutions of MS-2 coliphage suspension ( ~~$10^+$  to  $10^{+6}$~~ ) shall be made using sterile PBS or SBDW.  ~~$10^+$  to  $10^{+6}$  dilutions shall be plated~~ Dilute as needed in triplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted MS-2 coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC #15597 host shall

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be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to ~5 mL of melted 1% TSA. The inoculum and media shall be vortexed and poured on TSA plates. The plates shall be rocked to spread inoculum evenly.~~ After the 1% TSA layer has solidified, the plates shall be inverted and incubated at  $35 \pm 1$  °C ( $95 \pm 4$  1.8 °F) for  $18 \pm 2$  h.

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e) After the 2 h incubation, the tubes shall be centrifuged at 9280 x g for 5 min, or 2320 x g for 20 min, at  $20 \pm 1$  °C ( $68 \pm 4$  1.8 °F). ~~The resulting supernatant shall be removed while avoiding the pellet. A sterile 47 mm filtration assembly shall be aseptically constructed using a 0.22 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize MS-2 coliphage adsorption to the filter.~~ The supernatant shall be filtered. The resulting supernatant shall be transferred to a new container for filtration, while avoiding disturbing the pellet. First, a sterile 47 mm filtration assembly shall be aseptically constructed using a 0.45 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize MS-2 coliphage adsorption to the filter. The supernatant shall be filtered. This step is needed to filter any agar or large debris from the supernatant. Lastly, a sterile 47 mm filtration assembly shall be aseptically constructed using a 0.22 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize MS-2 coliphage adsorption to the filter.

#### N-1.8.1.2 Enumeration of MS-2 Coliphage plaques

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c) Serial dilutions of MS-2 coliphage suspension ( $10^{+}$  to  $10^{-12}$ ) shall be made using sterile PBS or SBDW.  ~~$10^{+}$  to  $10^{-12}$  dilutions shall be plated~~ Dilute as needed in triplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted MS-2 coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC #15597 host shall be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to ~5 mL of melted 1% TSA. The inoculum and media shall be vortexed and poured on TSA plates. The plates shall be rocked to spread inoculum evenly.~~ After the 1% TSA layer has solidified, the plates shall be inverted and incubated at  $35 \pm 1$  °C ( $95 \pm 4$  1.8 °F) for  $18 \pm 2$  h.

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#### N-1.10 Analysis of influent and effluent samples

##### N-1.10.1 Enumeration of MS-2 coliphage plaques

a) Serial dilutions of the influent and effluent samples ( $10^{+}$  to  $10^{-6}$ ) shall be made using sterile PBS or SBDW.  ~~$10^{+}$  to  $10^{-6}$  dilutions shall be plated~~ Dilute as needed in duplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted MS-2 coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC #15597 host shall be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to ~5 mL of melted 1% TSA. The inoculum and media shall be vortexed and poured on TSA plates. The plates shall be rocked to spread inoculum evenly.~~ After the 1% TSA layer has solidified, the plates shall be inverted and incubated at  $35 \pm 1$  °C ( $95 \pm 4$  1.8 °F) for  $18 \pm 2$  h.

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## Normative Annex 2

### Ultraviolet water treatment systems microbial reduction – Q $\beta$ procedures

#### N-2.6 Growth medium

##### N-2.6.1.3 Phage top agar 4% TSA-TSB + 1%.

Ingredient	Amount
tryptone	7.5 g
soytone	2.5 g
sodium chloride	2.5 g
agar	5.0 g
DI Water	500 mL
pH	7.3 $\pm$ 0.2

Add 1% of bacto-agar into the mixture of Tryptic Soy Broth (TSB). TSA-TSB + 1% shall be dissolved by boiling, adjusted to final pH, and autoclaved at 121  $\pm$  1  $^{\circ}$ C (250  $\pm$  2 1.8  $^{\circ}$ F) at 15 psi for 20 15 min. Agar shall be stored at 5  $\pm$  3  $^{\circ}$ C (41  $\pm$  5.4  $^{\circ}$ F). On the day of testing, the TSA TSB + 1% shall be liquefied and placed in the 45  $\pm$  1  $^{\circ}$ C (113  $\pm$  2 1.8  $^{\circ}$ F) water bath. The Q $\beta$  coliphage top agar shall be maintained at 45  $\pm$  1  $^{\circ}$ C (113  $\pm$  2 1.8  $^{\circ}$ F) to prevent agar solidification.

#### N-7.1 Culture of challenge organisms

##### N-2.7.1 Q $\beta$ coliphage

##### N-2.7.1.1 Stock culture preparation of Q $\beta$ coliphage

c) Serial dilutions of Q $\beta$  coliphage suspension ( $10^{-1}$  to  $10^{-12}$ ) shall be made using sterile SBDW or PBS.  ~~$10^{-7}$  to  $10^{-12}$  dilutions shall be plated~~ Dilute as needed in triplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted Q $\beta$  coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC # 23631 host shall be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to ~ 5 mL of melted 1% TSA.~~ The inoculum and media shall be vortexed and poured on TSA plates. The plates shall be rocked to spread inoculum evenly. After the 1% TSA layer has solidified, the plates shall be inverted and incubated at 35  $\pm$  1  $^{\circ}$ C (95  $\pm$  2 1.8  $^{\circ}$ F) for 18  $\pm$  2 h.

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e) After the 2 h incubation, the tubes shall be centrifuged at 9280 x g for 5 min, or 2320 x g for 20 min, at  $20 \pm 1$  °C ( $68 \pm 2$  1.8 °F). The resulting supernatant shall be removed while avoiding the pellet. A sterile 47 mm filtration assembly shall be aseptically constructed using a 0.22 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize Qβ coliphage adsorption to the filter. The supernatant shall be filtered.<sup>21</sup> The resulting supernatant shall be transferred to a new container for filtration, while avoiding disturbing the pellet. First, a sterile 47 mm filtration assembly shall be aseptically constructed using a 0.45 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize Qβ coliphage adsorption to the filter. The supernatant shall be filtered. This step is needed to filter any agar or large debris from the supernatant. Lastly, a sterile 47 mm filtration assembly shall be aseptically constructed using a 0.22 µm polycarbonate filter. The filter shall be pretreated with 10 mL of TSB just prior to the filtration to minimize Qβ coliphage adsorption to the filter.

#### N-2.7.1.2 Enumeration of Qβ Coliphage plaques

c) Serial dilutions of Qβ coliphage suspension ( $10^{-1}$  to  $10^{-12}$ ) shall be made using sterile SBDW or PBS.  ~~$10^{-1}$  to  $10^{-12}$  dilutions shall be plated~~ Dilute as needed in triplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted Qβ coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC # 23631 host shall be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to~~ 5 mL of melted 1% TSA. The inoculum and media shall be vortexed and poured on TSA plates. ~~The plates shall be rocked to spread inoculum evenly.~~ After the 1% TSA layer has solidified, the plates shall be inverted and incubated at  $35 \pm 1$  °C ( $95 \pm 2$  1.8 °F) for  $18 \pm 2$  h.

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#### N-2.9 Analysis of influent and effluent samples

##### N-2.9.1 Enumeration of Qβ coliphage plaques

a) Pipette sample volumes and dilutions that will yield from 30 to 300 PFU per plate. Serial dilutions of the influent and effluent samples ( $10^0$  to  $10^{-5}$ ) shall be made using sterile SBDW or PBS.  ~~$10^0$  to  $10^{-5}$  dilutions shall be plated~~ Dilute as needed in duplicate on 1.5% TSA plates. In a sterile tube, 1 mL of diluted Qβ coliphage shall be transferred. Then 0.1 mL of *E. coli* ATCC # 23631 host shall be added to the tube containing *E. coli* and vortex to mate the bacteriophage and *E. coli*. After vortexing, add about 5 mL of melted TSB+1%. Immediately pour onto the 1.5% TSA plates. ~~quickly to~~ 5 mL of melted 1% TSA. The inoculum and media shall be vortexed and poured on TSA plates. ~~The plates shall be rocked to spread inoculum evenly.~~ After the 1% TSA layer has solidified, the plates shall be inverted and incubated at  $35 \pm 1$  °C ( $95 \pm 1.8$  °F) for  $18 \pm 2$  h.

**Rationale: Revised per October 2020 DWTU JC meeting discussion (10/26/20). Note that a request was also made to define acronyms for phosphate buffered saline (PBS) and sterile buffered dilution water (SBDW). Upon review of the standard it was confirmed that these terms are already defined under N-1.5 Reagents.**

## BSR/UL 360, Standard for Liquid-Tight Flexible Metal Conduit

### 1. Marking requirements for suitability for use in swimming pool corrosive environments

#### PROPOSAL

24.4 The outside surface of every length of liquid-tight flexible metal conduit produced shall be marked with each of the following:

- a) The trade size of the conduit from [1.1](#).
- b) The name or trademark of the conduit manufacturer, that manufacturer's trade name for the conduit, both, or any other distinctive marking by means of which the organization that is responsible for the conduit can readily be identified.
- c) A distinctive identification of the factory if the organization that is responsible for the conduit operates more than one factory in which conduit is made. The factory identification may be in code, the meaning of which shall be made available.
- d) "80 C dry, 60 C wet" or "105 C dry, 60 C wet" may be marked on conduit whose jacket complies with the 113°C (for the 80°C rating) or 136°C (for the 105°C rating) oven aging requirements in [Table 17.1](#). Conduit that complies with one of these oven aging requirements but is not marked is acceptable for only 60°C dry or wet use. Conduit whose jacket complies with the 100°C oven aging requirements in [Table 17.1](#) may be marked "60 C dry or wet" but this use is understood without the marking. See also (f).
- e) "70 C oil res" or "70 C oil resistant" may be marked on 80°C or 105°C conduit (but not on 60°C conduit) whose jacket complies with the 70°C oil requirements in [Table 17.1](#). Conduit that complies but is not marked is acceptable for exposure to mineral oil at 60°C (140°F) and lower temperatures.
- f) "80 C dry, 60 C wet, 60 C oil res" or "80 C dry, 60 C wet, 60 C oil resistant" may be marked on conduit whose jacket complies with the 60°C oil and 113°C oven aging requirements in [Table 17.1](#). Conduit that complies but is not marked is not acceptable for the industrial-machinery use (NFPA 79) described in [1.4](#).
- g) Conduit not subjected to the oil immersion portion of the test for Physical Properties of Thermoplastic Jacket, Section [17](#), or the oil immersion portion of the Test for Durability of Ink Printing, Section [23](#), shall be marked on the jacket surface as follows: "OIL-FREE ENVIRONMENTS ONLY."
- h) Finished conduit that complies with the requirements of Pipe Stiffness for Conduit Intended for Direct-Burial, Section [13](#), shall be surface marked with one of the following designations:



- 1) "direct burial,"
- 2) "burial,"
- 3) "dir burial," or
- 4) "dir bur"  
at intervals that are not longer than 24 inches (610 mm).

i) Identification of the metal if other than steel, according to the following:

- 1) Aluminum – "LFMC-AL,"
- 2) Brass – "LFMC-BR,"
- 3) Bronze – "LFMC-BZ,"
- 4) Copper – "LFMC-CU"
- 5) Stainless steel – "LFMC-SS"

j) Steel or Aluminum Conduit having an overall PVC jacket may be marked "Suitable for use in swimming pool Corrosive Environments".

#### 25 Package

25.1 The following information shall be legibly marked on a tag or adhesive label affixed to the reel or carton or printed or stenciled directly on the reel or carton.

25.1.1 Steel or Aluminum Conduit having an overall PVC jacket may be marked "Suitable for use in swimming pool Corrosive Environments".

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## BSR/UL 746B, Standard for Safety for Polymeric Materials – Long Term Property Evaluations

### 1. Temperature Index TI based on IEC 60216-3 for UL 746B

3.6 A method and tool for the statistical analysis of long term property evaluation data and including the determination of a temperature index (TI) is described in Section 22A – 22J based on the Standard for Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics, IEC 60216-3.

6.1 A relative thermal index of a material (RTI) is an indication of the material's ability to retain a particular property (physical, electrical, etc.) when exposed to elevated temperatures for an extended period of time. It is a measure of the material's thermal endurance. For each material, a number of relative thermal indices can be established, each index related to a specific property and a specific thickness of the material.

6.1.1 A temperature index of a material (TI), Section 22A, is an alternative indication of the material's thermal endurance. It can as well be determined for a set of specific properties and thicknesses.

### DETERMINATION OF THE TEMPERATURE INDICES OF POLYMERIC MATERIALS

#### 22A General

22A.1 The temperature index of a specific material (TI) is the numerical value of the temperature in full degrees Celsius derived from the thermal endurance relationship at a correlation time of 20,000 hours (or other specified time). Depending on the quality of raw data, the TI is represented as such (default evaluation), an adjusted TI (designated TI<sub>a</sub>) or a graphical TI (designated TI<sub>g</sub>).

22A.2 In determining the temperature indices (TI) of a material, the basic concepts to be followed are stated in:

a) The IEEE documents referenced in 6.2

b) International Electrotechnical Commission (IEC) standards:

1) Guide for the statistical analysis of ageing test data, Part 1: Methods based on mean values of normally distributed test results, 60493-1;

2) Electrical insulating materials - Thermal endurance properties, Part 1: Ageing procedures and evaluation of test results, 60216-1;

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3) Electrical insulating materials - Thermal endurance properties, Part 3: Instructions for calculating thermal endurance characteristics, 60216-3; and

4) Electrical insulating materials - Thermal endurance properties, Part 6: Determination of thermal endurance indices (TI and RTE) of an insulating material using the fixed time frame method, 60216-6.

NOTE: While the relative thermal index (RTI) provides a comparison of the thermal-aging characteristics of one material of proven field service (control) at a particular temperature level with the thermal-aging characteristics of another material with no field service history (see 6.4), the temperature indices (TI) are inherent material properties. They are beneficial for the direct comparison of the thermal performance of any two or more polymeric materials. Control materials are not required for the determination of TI.

22A.3 Another explanation of a temperature index (TI) is the maximum temperature below which a material preserves its characteristics over a specified period. It is to be assumed that neither excessively long nor excessively short duty cycles are involved.

22A.4 To be valid for use in a specific application, a temperature index (TI) of a material must be established by a study of the degradation rates of all properties that are relied upon in that application. As a corollary to this principle, more than one temperature index (TI) can be assigned to a material depending on the relative degradation rates of the properties of the material and depending on which of these properties are considered in establishing the indices.

## **22B Temperature Index – Based Upon Long-Term Thermal-Aging Programs**

22B.1 The thermal-aging characteristics of a material can be determined by measuring the changes in its properties to a predetermined level by aging test specimens at each of several elevated temperatures; plotting log of time to the specified end point at each temperature against the reciprocal of absolute temperature; and plotting the best-fit straight line by regression analysis. The plotted line is often referred to as the Arrhenius- or life-line of a material.

22B.2 Suitable methods to determine temperature indices (TI) are primary properties (see Primary properties, 17.1) and proof tests (see Proof Testing, Section 18). Unless specified otherwise, a 50-percent loss of property value due to thermal degradation shall be considered as the property end point.

NOTE: Further guidance for the selection of property end points in a variety of specific applications is provided in the Standard for Electrical insulating materials - Thermal endurance properties – Part 2: Determination of thermal endurance properties of electrical insulating materials – Choice of test criteria, IEC 60216-2.

22B.3 Selected parts of test data from a previous determination of the Relative Thermal Index (RTI) based upon Long-Term Thermal-Aging Programs (see Sections 8 – 22 and 23) can also be used to determine the temperature indices (TI).

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## **22C Ovens**

22C.1 The thermal-aging ovens that are used in the aging program shall comply primarily with respect to Rate of Ventilation, Set Temperature, Temperature Variation and Thermal Lag Time, with either of the following:

a) The Standard Test Methods for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation, ASTM D5374, and with the Standard Specification for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation, ASTM D5423, for Type I ovens or

b) The Standard for Electrical insulating materials - Thermal endurance properties - Part 4-1: Ageing ovens - Single-chamber ovens, IEC 60216-4-1.

## **22D Test Program**

### **22D.1 Scope, thicknesses**

22D.1.1 For the scope, selection of test properties, and property evaluation tests refer to 11.1 and the Mechanical and Electrical Properties in the List of properties and test methods, Table 10.1.

22D.1.2 The determination of temperature indices (TI) of the evaluated property is conducted for each nominal sample thickness separately. If the TI of an evaluated property differs for two tested nominal thicknesses, the lower value shall be applied for all intermediate thicknesses.

### **22D.2 Sampling programs**

22D.2.1 Two sampling techniques are available for conducting a long-term thermal aging investigation:

- a) The Fixed Temperature Method in Sections 15 - 21 and
- b) The Fixed Time Method in Fixed Time Sampling Method, Section 22.

Both methods will provide the time-temperature-property values needed to establish the Temperature Index (TI). The primary difference between the methods is in the sampling technique employed. Since both methods rely upon a data analysis of the degradation of samples at various temperatures and using specific time intervals, the results of the tests would be expected to be similar regardless of which of the two methods is selected.

22D.2.2 All primary material properties (i.e., electrical, and mechanical) can be evaluated using either method (Fixed Temperature or Fixed Time).

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### **22D.3 Selection of oven temperatures**

22D.3.1 At least three oven temperatures shall be selected and spread in accordance with 13.5.

22D.3.2 The lowest oven temperature selected shall be one which will result in a mean or median end point of the material's property at this temperature in not less than 5,000 hours, or one quarter of the time, for which the TI shall be determined. The highest oven temperature selected shall be one which will result in a mean or median end point of the material's property at this temperature in not less than 100 hours. The minimum and maximum aging time criteria are applicable for each property evaluated.

NOTE: These requirements from Electrical insulating materials - Thermal endurance properties - Part 1: Ageing procedures and evaluation of test results, IEC 60216-1, are less stringent than those described in 13.1 and Selection of oven temperatures, Table 13.1. Therefore, a set of test data fulfilling the requirements of the Selection of Oven Temperatures, Section 13 is also applicable for this method.

### **22E Specimens and Thermal Aging**

22E.1 For Specimens and Thermal Aging refer to Specimens, Section 15 and Thermal Aging, Section 16.

### **22F Analysis and Evaluation**

22F.1 The method to determine endpoints is described in-depth in Electrical insulating materials - Thermal endurance properties - Part 3: Instructions for calculating thermal endurance characteristics, IEC 60216-3. It applies an equation in the form of:

$$y = a_p + b_p \log(t)$$

in which:

*y is a measure of the attribute (property level); and*

*t is time expressed in hours; and*

*a<sub>p</sub> and b<sub>p</sub> are linear regression coefficients.*

NOTE 1: IEC provides a software tool together with each copy of IEC 60216-3, which is recommended for the analysis and evaluation of raw data used to determine TI.

NOTE 2: For each oven temperature, a time range is selected, within which the curve so fitted is approximately linear. It includes at least three mean property values (i.e. sets) with at least one set on each side of the endpoint line. If this is not the case, and further measurements at greater times cannot be made (for example, because no specimens remain), a small extrapolation is permitted subject to further conditions described in the standard.

22F.2 For the Fixed Time Sampling Method in Section 22, the method to determine endpoints is described in-depth in the standard Electrical insulating materials - Thermal endurance properties - Part 6: Determination of thermal endurance indices (TI and RTE) of an insulating material using the fixed time frame method, IEC 60216-6.

NOTE: The same principles are applied analogously. However, the parameters temperature and time are exchanged.

22F.3 The determination of the Arrhenius equation in IEC 60216-3 and IEC 60216-6 follows the same principles as described in 19.6 - 19.9. Figure 22F.1 illustrates the curve obtained as the result of aging the material under investigation at three elevated temperatures. The dashed line represents the 95% lower confidence limit of the life-line.

**Note from STP Project Manager:** The graphic for the proposed Figure 22F.1 can be accessed by going to the Supporting Documentation section of the UL 746B CSDS Proposal Review Work Area dated January 29, 2021.

### **Figure 22F.1** **Example of time and temperature data for the determination of TI**

NOTE: In the example of Figure 22F.1, the life-line plot of the material under investigation crosses the 20,000-hour correlation time line at a TI temperature of 226°C (439°F), which due to the limited linearity of data is adjusted (TI<sub>a</sub>) to 221°C (430°F).

22F.4 The Halving interval (HIC in K) expresses the halving of the time to end-point taken at the temperature equal to TI. It is a measure for the slope of the Arrhenius line.

### **22G Reporting Temperature Indices**

22G.1 Temperature Indices (TI), whether adjusted (TI<sub>a</sub>) or not, shall be reported as TI for each test property and nominal thickness in full degrees Celsius.

22G.2 Optionally the Halving interval (HIC) shall be reported in brackets.

Format: TI (HIC): xxx (xx.x)

22G.3 If a correlation time other than 20,000 hours (20 kh) is applied, the correlation time in kh shall be reported as well.

Example: TI 5 kh (HIC): 131 (10.2)

22G.4 For Temperature Indices obtained by graphical means or without defined confidence limits, the symbols TI shall be replaced by TI<sub>g</sub> and HIC by HIC<sub>g</sub>.

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## UL 845, Standard for Safety for Motor Control Centers

### 1. The Proposed Sixth Edition of the Standard for Safety for Motor Control Centers, UL 845

#### 8.3.10 Short-circuit test performance of bus structure

When a motor control center has been tested under any of the short-circuit conditions described in Clause 9.10 for a rating selected from Table 3, the results shall be acceptable if the motor control center is in substantially the same mechanical condition as prior to the test, and if

- a) there is no permanent distortion or displacement of the bus bars or cable that can affect the normal functioning of the bus assembly or reduce spacings to less than 75% of those specified in Table 18;
- b) there is no distortion of a plug-in bus assembly that can impair normal insertion of a plug-in unit such as a motor control or feeder-tap unit;
- c) a bus bar insulator, support, or cable restraint has not separated into two or more pieces. Also, there shall be no cracks appearing on opposite sides of a base and no cracks, including surface cracks, running the full length or width of the support. The cracks are considered acceptable if, after a repeated short-circuit test on the same sample, the MCC complies with the Dielectric Voltage-Withstand Test, 9.11, and the electrical spacings are not reduced to less than 75 percent of the values specified in Table 18. Other cracks, chips, or the like, which are not considered to reduce the structural integrity of the support ~~may be used~~ are acceptable if the resulting spacings are not reduced to less than 75% of the values specified in Table 18. ~~The cracks may be considered acceptable if, after a repeated short-circuit test on the same sample, the MCC complies with the Dielectric Voltage-Withstand Test, Clause 9.11, and the electrical spacings are not reduced to less than 75% of the values specified in Table 18;~~
- d) the fuse described in Clause 9.10.10.6 has not opened;
- e) the enclosure or a part of the enclosure has not been damaged or displaced to the extent that a live part is accessible to a test rod
  - 1) 13.2 mm (0.51 in) in diameter for any opening less than 107 mm (4 in) from an uninsulated live part; or
  - 2) 19.4 mm (0.76 in) in diameter for any opening 107 mm (4 in) or more from such a part;
- f) there is no damage due to arcing;
- g) there is no significant damage to a conductor or its insulation or to the terminal connector, and the conductor has not pulled out of the terminal connector;
- h) the motor control center complies with the dielectric voltage-withstand test described in Clause 9.11.

## UL 845, Standard for Safety for Motor Control Centers

### 2. Temperature Terminations

6.3.27A Where required by Clause 8.2.16.9.3, the motor control ~~centre~~ center incoming supply sections/units shall be permanently marked with the allowable ampacity of the field-installed incoming supply conductors, in a location readily visible prior to wiring, with the following or equivalent wording:

“Field installed incoming supply conductors may use 75/90 °C ampacity ratings.”

and

“Les conducteurs d'alimentation entrants installés sur site peuvent utiliser une intensité nominale de 75/90 °C.”

**Note: See also Rule 4-006 of the Canadian Electrical Code, Part I, and Article 110.14(C) in the National Electrical Code.**

8.2.16.9.1 Where field-installed incoming supply conductors connect to a suitable length of internal bus and not directly to devices, it is permissible to allow a 90 °C ampacity rated conductor to be connected to the motor control ~~centre~~ center, which would otherwise not be permitted by the allowable termination temperature rating of the devices themselves. Suitability for 90°C ampacity shall be determined in accordance with Clause 8.2.16.9.2 and 8.2.16.9.3. The incoming supply connections shall additionally be suitable for 75°C ampacity conductors as required elsewhere in this Standard.

**Note: For example, a 1000 A circuit breaker is rated for a maximum of 75 °C ampacity conductors. Incoming supply conductors connected directly to the circuit breaker cannot exceed the allowable ampacity for 75 °C conductors. If those conductors instead connect to a length of bus and then the bus is connected to the circuit breaker, then provided that the bus is of a suitable length and cross-section to dissipate sufficient heat, and if testing proves the termination temperature at the circuit breaker does not exceed the allowable values in Table 27, 90 °C ampacity conductors may be used to connect to the bus.**

8.2.16.9.4 The motor control ~~centre~~ center shall be permanently marked in accordance with Clause 6.2.3.

**Table 17**

#### Ampacity of insulated conductors for field wiring

(Clauses 8.2.16.3, 8.2.16.5, 8.2.16.9, 9.6.3, 9.14.2.5, and 9.17.2.5)

Wire size		60 °C		75 °C		90 °C <sup>b</sup>	
mm <sup>2</sup>	(AWG or kcmil)	Copper	Aluminum	Copper	Aluminum	Copper	Aluminum
0.20	(24)	2	-	-	-	-	-
0.32	(22)	3	-	-	-	-	-
0.52	(20)	5	-	-	-	-	-
0.82	(18)	7	-	-	-	14	-
1.3	(16)	10	-	-	-	18	-
2.1	(14)	15	-	15	-	25	-
3.3	(12)	20	15	20	15	30	25
5.3	(10)	30	25	30	25	40	35
8.4	(8)	40	30	50 [45 <sup>b</sup> ]	40 [30 <sup>b</sup> ]	55	45
13.3	(6)	55	40	65	50	75	60
21.2	(4)	70	55	85	65	95	75



## UL 845, Standard for Safety for Motor Control Centers

26.7	(3)	80	65	100	75	110	85
33.6	(2)	95 [ <del>100</del> <sup>b</sup> ]	75	115	90	130	100
42.4	(1)	110 <sup>a</sup>	85 <sup>a</sup>	130	100	150	115
53.5	(1/0)	-	-	150	120	170	135
67.4	(2/0)	-	-	175	135	195	150
85.0	(3/0)	-	-	200	155	225	175
107	(4/0)	-	-	230	180	260	205
127	(250)	-	-	255	205	290	230
152	(300)	-	-	285	230	320	<del>255</del> 260
177	(350)	-	-	310	250	350	280
203	(400)	-	-	335	270	380	305
253	(500)	-	-	380	310	430	350
304	(600)	-	-	420	340	475	385
355	(700)	-	-	460	375	520	<del>420</del> 425
380	(750)	-	-	475	385	535	435
405	(800)	-	-	490	395	555	<del>450</del> 445
456	(900)	-	-	520	425	585	480
506	(1 000)	-	-	545	445	615	500
633	(1 250)	-	-	590	485	665	545
760	(1 500)	-	-	625	520	705	585
887	(1 750)	-	-	650	545	735	615
1 010	(2 000)	-	-	665	560	750	630

<sup>a</sup> If the motor control center is marked to indicate that 75 °C (167°F) wire shall be used at the terminal, the acceptable current is 130 A for a copper conductor and 100 A for an aluminum conductor.

<sup>b</sup> ~~Values in [ ] apply in Canada.~~

<sup>b</sup> [Applicable only to incoming supply conductors in accordance with 8.2.16.9.](#)

NOTE For a multiple conductor connector at a terminal, the value shall be multiplied by the number of conductors 53.5 mm<sup>2</sup> (1/0 AWG) or larger that the terminal will accommodate.

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## BSR/UL 982, Standard for Safety for Motor-Operated Household Food Preparing Machines

### 8. Blender Container Position Switch in Place of Marking of 72.3.3

#### PROPOSAL

30.4.1.4 Unless the blender is marked in accordance with 72.3.3, unintentional operation of a blender with the blade assembly on the blender base without assembly to the container shall be prevented by a momentary contact position switch complying with 6.19.1 actuated by the container to allow the motor to start where the actuator is recessed or guarded to prevent actuation by a cylindrical rod having a diameter of 1.58 inches (40 mm) and a hemispherical end ~~and applied~~ applying the probe indicated in Figure 7.1 to the blade assembly or switch actuator. If more than one switch must be actuated for the blades to operate, each actuator is evaluated individually unless a single application of the probe can activate both switches simultaneously. If the switch is a part of an electronic control:

- a) The control shall be evaluated as an interlock and comply with Sections 6.5.3 and 27, or
- b) ~~A second~~ Two momentary contact position switches shall be required to be actuated in order to operate the blender and the control shall comply with Sections 6.5.2 and 27.

30.4.1.5 For blenders where the blades are not removable from the blender base, unintentional operation of the blender without the container in place shall be prevented by an ~~momentary contact~~ interlock switch complying with 6.19.3

## **BSR/UL 1004-9, Standard for Safety for Form Wound and Medium Voltage Rotating Electrical Machines**

### **Proposal Topic: Remove Reference to UL 508C**

2.1 Solid-state controllers shall comply with the Standard for Adjustable Speed Electrical Power Drive Systems - Part 5-1: Safety Requirements - Electrical, Thermal and Energy, UL 61800-5-1, or [the Standard for Controllers for Use in Power Production, UL/ULC 6200](#).

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## BSR/UL 1026, Standard for Safety for Household Electric Cooking and Food Serving Appliances

### 1. Revisions to address touch control

#### PROPOSAL

#### 4.20 TOUCH CONTROL - Control actuated by contact or proximity of a finger, with no movement of the contact surface.

22.19 A cord-connected automatic toaster with touch control, or an appliances with touch control where unintentional operation of moving parts that ~~would~~ results in injury, shall be constructed to reduce the risk of unintentional operation. The touch control shall comply with all of the following requirements:

- a) At least two manual operations to start operation of ~~toaster~~ appliance. Touching the contact surface of the switch control at the same point twice is not considered to be two operations;
- b) A plainly identified one-step STOP function readily visible during operation and distinguish from other functions;
- c) A flashing light (or other visual indicator) to indicate when the touch screen is in a condition where a single touch is needed to initiate operation of the ~~toaster~~ appliance (after Step 1);
- d) A time-out function on the first step of no longer than 30 seconds;
- e) Provided with a flashing light and instructions as specified in 71.6 when a single touch is needed to initiate operation of the ~~toaster~~ appliance; and
- f) Glass Window or Door Impact Test, Section 50 followed by Dielectric Voltage Withstand Test, Section 44 between live parts and accessible touch screen surfaces closely wrapped in metal foil.

22.20 With respect to 22.19 a), after the operation of the ~~toaster~~ appliance is manually stopped, or after automatically stopping at the completion of a programmed sequence, the ~~toaster~~ appliance shall return to a condition requiring a two-step function to initiate operation

22.21 A ~~capacitive~~ touch control on ~~automatic toaster~~ an appliance as specified in 22.19(a), shall additionally be subjected to the following without loss of the two-step ON function:

- a) Component Failure Test, 55.2.10,
- b) Electrostatic Discharges in accordance with Electromagnetic compatibility (EMC) - Part 4-2: Testing and Measurement Techniques - Electrostatic Discharge Immunity Test, IEC 61000-4-2, test level 4 being applicable. Ten

discharges having a positive polarity and ten discharges having a negative polarity are applied at each preselected point, and

c) Radiated Emission in accordance with Electromagnetic compatibility (EMC) - Part 4-3: Testing and Measurement Techniques - Radiated, radio-frequency, electromagnetic field immunity test, IEC 61000-4-3, ~~test level 3 being applicable.~~  
The frequency ranges tested shall be:

1) 80 MHz to 1000 MHz, test level 3;

2) 1.4 GHz to 2.0 GHz, test level 3;

3) 2.0 GHz to 2.7 GHz, test level 2.

NOTE: The dwell time for each frequency is to be sufficient to observe a possible malfunction of the protective electronic circuit.

71.6.1 For an automatic toaster with touch control as specified in 22.19, the important safeguards shall provide the following instructions:

Flashing light (or other visual indicator) indicates ready to operate. Avoid any contact with live parts.

71.14 Appliances with touch control involving moving parts specified in 22.19. For an appliance with touch control where unintentional operation of moving parts that results in injury as specified in 22.19, the important safeguards shall provide the following instructions:

Flashing light (or other visual indicator) indicates ready to operate. Avoid any contact with moving parts.

## BSR/UL 1574, Standard for Safety for Track Lighting Systems

### 1. Proposed Revision to the Strength of Adaptor Test in the third edition of UL 1574

#### PROPOSAL

3.30 LUMINAIRE ASSEMBLY – An assembly consisting of a luminaire head and an adaptor. In this standard, designs where the luminaire head and adaptor are manufactured as a one-piece assembly is identified as an integral luminaire assembly.

#### 60 Adaptor Tests

##### 60.1 Strength of adaptor

60.1.1 An adaptor shall be tested as described in 60.1.2 and 60.1.3 and shall comply with the test results in 60.1.4.

60.1.2 A 4 foot (1.22 m) section of track with two mounting openings, each of which is located 6 inches (150 mm) from each end of the track section, is to be mounted as intended on a flat plywood surface. The electrical contact blades are to be removed from the luminaire adaptor.

60.1.3 The luminaire adaptor is to be mounted to the track with the track first in a ceiling-mounted position and then in a wall-mounted position. A weight equal to two times the weight of the heaviest luminaire assembly, but no less than 10 pounds (4.5 kg), is to be suspended from the adaptor for 1 minute.

Exception No. 1: An integral luminaire assembly (see 3.30) is to be subjected to the test in 60.1.3 by suspending a weight equal to four times the weight of the integral assembly for a period of 1 hour.

Exception No. 2: A luminaire adaptor not intended for use on a wall-mounted track system need not be tested in a wall-mounted position and shall be marked as specified in 83.8.

60.1.4 Test results are acceptable if:

- a) The track is not deformed in a manner that would:
  - 1) Increase the risk of fire or electric shock; or
  - 2) Reduce spacings below the minimum values specified in Section 18, Spacings; and
- b) The bus bars and live components are rendered not accessible as determined by using the probe illustrated in Figure 17.1.