CONTENTS

American National Standards

Project Initiation Notification System (PINS) ........................................................... 2
Call for Comment on Standards Proposals .................................................................. 26
Final Actions - (Approved ANS) .................................................................................. 45
Call for Members (ANS Consensus Bodies) ................................................................. 48
American National Standards (ANS) Announcement ................................................ 53
Accreditation Announcements (Standards Developers) .............................................. 54
Meeting Notices (Standards Developers) ................................................................. 55
American National Standards (ANS) Process ........................................................... 56
ANS Under Continuous Maintenance ......................................................................... 57
ANSI-Accredited Standards Developer Contact Information .................................. 58

International Standards

ISO and IEC Draft Standards ..................................................................................... 62
ISO and IEC Newly Published Standards ............................................................... 65
International Organization for Standardization (ISO) .............................................. 68
Call for Members (USNC) ....................................................................................... 70
Meeting Notices (International) .............................................................................. 71

Registration of Organization Names in the United States ........................................ 72

Proposed Foreign Government Regulations ......................................................... 73
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.

AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO  80904   www.aafs.org
Contact: Teresa Ambrosius; tambrosius@aafs.org

New Standard

BSR/ASB BPR 159-202x, Best Practice Recommendation for Guiding Principles for Scene Investigation (new standard)
Stakeholders: Crime scene investigators and reconstructionists to include sworn law enforcement, civilians, laboratory forensic scientists with scene response duties, criminal justice community, and any other professional tasked with scene-based search, documentation, collection, interpretation, and preservation of physical evidence.
Project Need: This proposed standard fills the need of an overarching document of practice in crime scene investigation. From this foundational document, multiple other standards and best practice recommendations will be developed.
Scope: This document describes the minimum guiding principles for scene investigation. These best practices establish a framework for expected behavior and for decision-making. These principles include legal considerations, personnel safety, scientific reliability and validity, preserving context, maintaining evidence integrity, transparency, and managing bias.

AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO  80904   www.aafs.org
Contact: Teresa Ambrosius; tambrosius@aafs.org

New Standard

BSR/ASB BPR 160-202x, Best Practice Recommendation for Initial Response at Scenes by Law Enforcement (new standard)
Stakeholders: Law enforcement officers whose duties include the initial response to scenes as well as crime scene investigators and reconstructionists to include sworn law enforcement, civilians, laboratory forensic scientists with scene response duties, criminal justice community, and any other professional tasked with scene-based search, documentation, collection, interpretation, and preservation of physical evidence.
Project Need: This document provides best practices to be employed by law enforcement officers (LEO) when they arrive at an incident which could be expected to become the subject of criminal or civil litigation. This document recommends generally accepted professional principles and practices.
Scope: This best practice recommendation provides guidance for the initial response by law enforcement to scenes. The guidance includes: arrival procedure, safety considerations, medical intervention, assessing the scene, scene containment and control, evidence preservation, turning the scene over to investigators, and document actions and observations. It does not include guidance for a complete scene investigation.
**AMCA (Air Movement and Control Association)**
30 West University Drive, Arlington Heights, IL  60004-1893   www.amca.org
Contact: Shruti Kohli-Bhargava; shrutik@amca.org

*Revision*


Stakeholders: Fan manufacturers, acoustic consultants, building engineers, purchasers of fans, fan testing laboratories
Project Need: This standard establishes a method of determining the sound power levels of a fan. It was originally developed in response to the need for a reliable and accurate method of determining the sound power levels of fan equipment.
Scope: This standard applies to fans of all types and sizes. It is limited to the determination of airborne sound emission for the specified setups. Vibration is not measured, nor is the sensitivity of airborne sound emission to vibration effects determined. The size of a fan that can be tested in accordance with this standard is limited only by the practical aspects of the test setups. Dimensional limitations, test subject dimensions, and air performance will control the test room size, power, and mounting requirements for the test subject. The test setup requirements in this standard establish the laboratory conditions necessary for a successful test. Rarely will it be possible to meet these requirements in a field situation. This standard is not intended for field measurements.

**ANS (American Nuclear Society)**
555 North Kensington Avenue, La Grange Park, IL  60526   www.ans.org
Contact: Kathryn Murdoch; kmurdoch@ans.org

*New Standard*

BSR/ANS 2.32-202x, Remediation of Radioactive Contamination in the Subsurface at Nuclear Power Plants (new standard)

Stakeholders: USNRC, nuclear power industry, States, USEPA, USDOE, IAEA, OECD/NEA, American nuclear insurers, tribes, local government, contractors, public water systems, and the local community.
Project Need: Nuclear power plant decommissioning activities are expected to potentially include mitigation of subsurface contamination. Past inadvertent releases at power plants may also require subsurface mitigation. A standard is needed to describe remedy selection and implementation criteria at nuclear power plants to address specific considerations that are not effectively described in the existing standards and regulations addressing more general application of subsurface remediation.
Scope: This standard describes actions and documentation that facilitate remedy decisions for radionuclide contamination in the subsurface at nuclear power plants. The content includes operational, infrastructure, and contaminant considerations with respect to how they impact the strategy for subsurface remediation. This standard builds from the existing ANS 2.17 standard (evaluating subsurface contamination) by providing a description of the elements of subsurface remediation, from determining the need for remediation, to selection, to implementation, and through closure.
**ASCE (American Society of Civil Engineers)**
1801 Alexander Bell Dr, Reston, VA 20191  www.asce.org
Contact: James Neckel; jneckel@asce.org

*Revision*

Stakeholders: Atmospheric water management personnel at the local, state, or federal levels of government, as well as the public in the areas of affect in the programmed regions; hydrologic engineers, meteorologists, agricultural producers, property insurers, and other interests vulnerable to hail damage should be involved in these programs.

Project Need: Standard ANSI/ASCE/EWRI 39 uses the best available scientific and technical knowledge to describe a process that optimizes the likelihood of success for Operational Hail Suppression Programs throughout any region of the USA and/or the World. The decrease of hail damage worldwide is important to agricultural producers, property insurers, and other interests vulnerable to hail damage.

Scope: Guidelines for Operational Hail Suppression Programs, ANSI/ASCE/EWRI 39, describes the process for designing, conducting, and evaluating operations to suppress the formation of hail. Hail is the product of vigorous, deep convection in the atmosphere. The most common approaches to hail suppression involve seeding a storm with nucleating agents using airborne, ground-based, or rocket and artillery delivery systems. Although the effects of seeding clouds for hail suppression are not fully understood, five concepts are commonly employed in successful projects: beneficial competition, early rainout, trajectory lowering, promotion of coalescence, and dynamic effects. The standard covers the design of hail suppression operations, including a definition of project scope, selecting a seeding agent, delivery methods, meteorological data collection and forecasting, selection and siting of equipment, legal issues, and environmental considerations. It also considers important factors in conducting a hail-suppression program, including the operations manual, personnel requirements, operational decision-making, communications, safety, and public relations. Finally, it describes approaches to evaluating the program areas and measures to evaluate effectiveness using both direct and secondary evidence.

**ASME (American Society of Mechanical Engineers)**
Two Park Avenue, M/S 6-2B, New York, NY 10016-5990  www.asme.org
Contact: Terrell Henry; ansibox@asme.org

*New Standard*
BSR/ASME MBE 2-202x, Model-Based Enterprise Terminology and Definitions (new standard)

Stakeholders: Automotive, aerospace, medical, government DOD.

Project Need: Industry requests consistency among model-based enterprise definitions and applications of terms, and a model-based lexicon and approaches.

Scope: Definitions and applications of terms, acronyms, and abbreviations for use in a model-based enterprise. Provides an example of a model-based lexicon.
ASQ (ASC Z1) (American Society for Quality)
600 N Plankinton Avenue, Milwaukee, WI  53203   www.asq.org
Contact: Julie Sharp; standards@asq.org

New National Adoption
BSR/ASQ/TS 54001-202x, Quality management systems - Particular requirements for the application of ISO 9001:2015 for electoral organizations at all levels of government (identical national adoption of ISO/TS 54001:2019)
Stakeholders: Industry, academia, government, and general interest.
Project Need: National adoption.
Scope: This document specifies requirements for a quality management system where an electoral organization:
— needs to demonstrate its ability to manage elections by secret ballot, to provide reliable, transparent, free and fair results that comply with electoral requirements;
— within the established legal framework, aims to enhance the trust and confidence of citizens, candidates, political organizations and other electoral interested parties through the effective implementation of the electoral quality management system, including processes for continual improvement.

CAAS (Commission on Accreditation of Ambulance Services)
1926 Waukegan Road, Suite 300, Glenview, IL  60025   www.caas.org
Contact: Marcie McGlynn; marciem@tcag.com

New Standard
BSR/CAAS v4.0-202x, CAAS Standards Version 4.0 (new standard)
Stakeholders: Ground ambulance services, patients, providers, ambulance manufacturers, EMS equipment manufacturers, EMS State agencies/officials, EMS industry groups/associations, government entities, owner/operators, medical representatives.
Project Need: The CAAS Standards safeguard the protection of ambulance crews, their patients and enhance the quality of the ambulance services provided to communities. The approval of the CAAS Standards 4.0 would encourage more ambulance services to incorporate the CAAS Standards. The promulgation of the CAAS Standards would increase the safety of patients being transported and improve the quality and efficiency of ambulance services.
Scope: CAAS Standards Version 4.0 is designed to provide administrative and operational guidelines for the entire Emergency Medical Services (EMS)/ground ambulance transportation industry. It establishes standardized administrative and operational requirements in the areas of organizational management, inter-agency relations, general management, financial management, community relations, public affairs, human resources, clinical standards, safe operations, managing risk, equipment, vehicles, facilities and communications centers, specialty care transports, and special response programs.

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH  44131   www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Addenda
Stakeholders: Manufacturers, installers, consumers.
Project Need: Update the standard with an amendment to clause 4.73 to bring this standard into alignment with other standards that address gas-fired cooking appliances. This clarification of the two steps 'ON' / one step 'OFF' requirements is intended to better align with the control function requirements of CAN/CSA C22.2 No. 61 and UL 858, the Standards for Household Electric Ranges.
Scope: This standard applies to newly produced household cooking gas appliances hereinafter referred to as units or appliances, constructed entirely of new, unused parts, and materials. These appliances may be floor supported or built-in.
CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
BSR/CSA NGV 1-202x, Compressed Natural Gas Vehicle (NGV) Fueling Connection Devices (revision of ANSI/CSA NGV1-2017)
Stakeholders: Consumers, manufacturers, gas suppliers, certification agencies.
Project Need: Revise standard for safety.
Scope: This standard applies to newly produced compressed Natural Gas Vehicle (NGV) fueling connection devices constructed entirely of new, unused parts and materials. NGV fueling connection devices shall consist of receptacle and cap, nozzle, and/or three-way valve.

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
BSR/CSA NGV2-202X, Compressed natural gas vehicle fuel containers (revision of ANSI/CSA NGV2-2019)
Stakeholders: Consumers, manufacturers, gas suppliers, certifying agencies.
Project Need: Revise standard for safety.
Scope: This Standard contains requirements for the material, design, manufacture, and testing of serially produced, refillable Type NGV 2 containers intended only for the storage of compressed natural gas for vehicle operation. These containers are to be permanently attached to the vehicle. This standard applies to containers up to and including 1000 liters (35.4 ft3) water capacity. Type NGV 2 containers are designated as follows:
- Type 1: Metal
- Type 2: Resin-impregnated continuous filament with metal liner with a minimum burst pressure of 125 percent of service pressure. This container is hoop-wrapped.
- Type 3: Resin-impregnated continuous filament with metal liner. This container is full wrapped.
- Type 4: Resin-impregnated continuous filament with a nonmetallic liner

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
BSR/CSA NGV 4.2-202X, Hoses for Natural Gas Vehicles and Dispensing Systems (revision of ANSI/CSA NGV 4.2-2014)
Stakeholders: Consumers, manufacturers, gas suppliers, certifying agencies.
Project Need: Revise standard for safety.
Scope: This standard contains safety requirements for the material, design, manufacture, and testing of natural gas hose and hose assemblies which are (1) used as a part of the dispensing station to connect the dispenser to the refueling nozzle, (2) used as part of a vehicle on-board fuel system, or (3) use as vent lines which carry gas to a safe location for either vehicles or dispensing systems.
CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
BSR/CSA NGV 4.6-202x, Manually operated valves for natural gas dispensing systems (revision of ANSI/CSA NGV 4.6-2020)
Stakeholders: Consumers, manufacturers, gas suppliers.
Project Need: Revise standard for safety.
Scope: This standards contains safety requirements for the material, design, manufacture, and testing of manually operated valves for high-pressure natural gas. These requirements do not apply to cylinder shut-off valves.

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
BSR/CSA NGV 5.1-202x, Residential fueling appliances (revision of ANSI/CSA NGV 5.1-2016)
Stakeholders: Natural gas vehicle manufacturers, CNG infrastructure, regulators.
Project Need: Revise standard for safety.
Scope: This standard details mechanical and electrical requirements for newly manufactured systems that dispense natural gas for vehicles directly into the vehicle fuel storage container and are installed in non-commercial/non-public locations. This standard does not apply to the nozzle, hose assemblies, and connection devices associated with such equipment.

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  www.csagroup.org
Contact: David Zimmerman; ansi.contact@csagroup.org

Revision
Stakeholders: Natural gas vehicle manufacturers, CNG infrastructure, regulators, consumers.
Project Need: Revise standard for safety.
Scope: This Standard details mechanical, physical, and electrical requirements for a newly manufactured appliance that dispenses natural gas for vehicles directly into the vehicle natural gas fuel storage systems from natural gas distribution systems or supply systems other than residential gas systems, referred to as vehicle fueling appliances (VFA). (NOTE: Residential fueling appliances (RFA) are addressed in CSA Standard NGV 5.1.) These requirements apply to compressed natural gas appliances for installation in commercial, nonresidential locations, and nonretail fueling facilities.
**New Standard**

**BSR/FM 5800-202x, Oxygen Reduction Systems (new standard)**

Stakeholders: Manufacturers of oxygen reduction systems, owners of these systems, fire service, and insurers.

Oxygen reduction systems are not designed to extinguish fires. Instead they are fire-prevention systems or fire-limiting systems (i.e., they can prevent ignition or prevent fire spread depending on the fuel and oxygen concentration). From a property loss prevention standpoint, the most appropriate application for this type of system is high-value occupancies that are susceptible to nonthermal fire damage (smoke and water) or in occupancies where the use of traditional fire sprinklers is either very challenging, expensive, or where traditional protection options do not exist. Some examples of these applications are automatic storage and retrieval system (ASRS) warehouses, freezer warehouses, and high-value storage enclosures, vaults or enclosed equipment (product samples, rare documents, digital storage).

Project Need: Oxygen reduction systems are being marketed and installed by several manufacturers in the absence of a certification standard that addresses the system performance and component test requirements for these systems. The intent of this standard is to address this need by publishing certification requirements for oxygen reduction systems to elevate the confidence in these systems to similar levels of other fire protection technologies.

Scope: The standard encompasses the system performance and component test requirements for oxygen reduction systems for the purpose of fire protection. This standard does not include requirements for the installation, application and maintenance of oxygen reduction systems. Oxygen reduction systems may use membranes, pressure-swing adsorption (including vacuum pressure-swing adsorption), or other technology to generate nitrogen as a means of displacing oxygen in the protected space. This standard is intended to verify that the product described will meet the stated conditions of performance, safety, and quality useful for property loss prevention.

**New Standard**

**BSR/FM 3270-202x, Examination Standard for Hot Work Robots (Fixed and Mobile Fire Watch) (new standard)**

Stakeholders: Any industry which is required to issue a hot work permit.

Project Need: The product certified to this standard will provide an alternative to a human fire watch during a hot work permit, required within NFPA 51B.

Scope: This standard describes performance requirements for hot work robots also known as fixed or mobile fire watch which detect products of combustion in a specific location during and after hot work operations. Hot work robots use a variety of fire and smoke detection technologies such as video image and infrared to notify facility operators upon detection of an incipient stage fire.
**NEMA (National Electrical Manufacturers Association)**

1300 North 17th Street, Rosslyn, VA 22209  www.nema.org

Contact: Khaled Masri; Khaled.Masri@nema.org

**New Standard**

BSR/NEMA LI 1-202x, Industrial Laminating Thermosetting Products (new standard)

Stakeholders: Producers, users and testing labs interested in industrial laminating thermosetting products.

Project Need: Adopt NEMA standard the industry need.

Scope: The Scope of this standard publication includes information concerning the manufacture, testing, and performance of laminated thermosetting products in the form of sheets, rods, and tubes. A new format for the Industrial Laminate (Unclad) Standard has been established in which the requirements for the physical and electrical properties of the individual NEMA Grades have been consolidated and placed on individual specification sheets. With this format, all of the information on an individual material will be found in one place.

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**OPEI (Outdoor Power Equipment Institute)**

1605 King Street, Alexandria, VA 22314  www.opei.org

Contact: Daniel Mustico; dmustico@opei.org

**Reaffirmation**

BSR/OPEI B71.8-2016 (R202x), Powered Walk-Behind Rotary Tillers and Hand-Supported Cultivators - Safety Specifications (reaffirmation of ANSI/OPEI B71.8-2016)

Stakeholders: Producer (i.e., manufacturer of engines, component supplier, component manufacturer); User (i.e., consumer, distributor, retailer) General Interest (i.e., regulatory or governmental agency, testing laboratory, trade association).

Project Need: Reaffirm standard as it continues to reflect state-of-art requirements.

Scope: The requirements provided in this standard are for powered walk-behind rotary tillers and hand-supported cultivators. This standard is intended to provide safety and design requirements to help ensure uniform operator environments, exclusive of the power source. This standard shall apply to machines specifically marketed for consumer/personal use.

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

140 Philips Rd, Exton, PA 19341  www.scte.org

Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**

BSR/SCTE 24-1-2016 (R202x), IPCablecom 1.0 Part 1: Architectural Framework for the Delivery of Time Critical Services Over Cable Television Networks Using Cable Modems (reaffirmation of ANSI/SCTE 24-1-2016)

Stakeholders: Cable Telecommunications industry.

Project Need: Update to current technology.

Scope: This document provides the architectural framework that will enable cable television operators to provide time-critical services over their networks that have been enhanced to support cable modems.
**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 24-2-2016 (R202x), IPCablecom 1.0 Part 2: Audio Codec Requirements for the Provision of Bi-Directional Audio Service Over Cable Television Networks Using Cable Modems (reaffirmation of ANSI/SCTE 24-2-2016)

Stakeholders: Cable Telecommunications industry.

Project Need: Update to current technology.

Scope: This standard specifies the audio (voice) codes that are to be used in the provisioning of bi-directional audio services over cable television distribution networks using IP technology (i.e., IPCablecom service). The standard also addresses interfaces between IPCablecom client devices for audio communication. Specifically, it identifies the audio codecs necessary to provide the highest quality and the most resource-efficient service delivery to the customer. Additionally, this document describes a suggested methodology for optimal network support for codecs.

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**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 24-3-2016 (R202x), IPCablecom Part 3: Network Call Signaling Protocol for the Delivery of Time-Critical Services over Cable Television Using Data Modems (reaffirmation of ANSI/SCTE 24-3-2016)

Stakeholders: Cable Telecommunications industry.

Project Need: Update to current technology.

Scope: This specification describes a profile of the Media Gateway Control Protocol (MGCP) for IPCablecom embedded clients, which we will refer to as the IPCablecom Network-based Call Signaling (NCS) protocol. MGCP is a call-signaling protocol for use in a centralized call control architecture, and assumes relatively simple client devices. The call signaling protocol is one layer of the overall IPCablecom suite of specifications and relies upon companion protocol specifications to provide complete end-to-end IPCablecom functionality. The scope of NCS is currently only embedded Voice-Over-IP client devices in an IPCablecom environment and the NCS profile has therefore simplified and in some cases modified the base MGCP 1.0 protocol accordingly. Support for video will be added in a later version of this document.

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**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 24-4-2016 (R202x), IPCablecom Part 4: Dynamic Quality of Service for the Provision of Real-Time Services over Cable Television Networks Using Cable Modems (reaffirmation of ANSI/SCTE 24-4-2016)

Stakeholders: Cable Telecommunications industry.

Project Need: Update to current technology.

Scope: This document addresses requirements for a client device to obtain access to IPCablecom network resources. In particular, it specifies a comprehensive mechanism for a client device to request a specific Quality of Service from the DOCSIS® network. Extensive examples illustrate the use of the specification.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-5-2016 (R202x), IPCablecom Part 5: Media Terminal Adapter (MTA) Device Provisioning Requirements for the Delivery of Real-Time Service over Cable Television Using Cable Modems (reaffirmation of ANSI/SCTE 24-5-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The scope of this document is limited to the provisioning of an IPCablecom 1.0 embedded-MTA device by a single provisioning and network management provider. An attempt has been made to provide enough detail to enable vendors to build an embedded-MTA device that is interoperable in an IPCablecom 1.0 network configuration. This document defines the provisioning of MTA components of the embedded MTA device (unless stated otherwise).

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-6-2016 (R202x), IPCablecom Part 6: IPCablecom Management Information Base (MIB) Framework (reaffirmation of ANSI/SCTE 24-6-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard describes the framework in which IPCablecom MIB (Management Information Base) modules are described. It provides information on the management requirements of IPCablecom-compliant devices and functions and how these requirements are supported in the MIB modules. It is intended to support and complement the actual MIB module documents, which are issued separately.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-7-2016 (R202x), IPCablecom Part 7: Media Terminal Adapter (MTA) Management Information Base (MIB) Requirements (reaffirmation of ANSI/SCTE 24-7-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard describes the IPCablecom 1.0 MTA MIB requirement.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-8-2016 (R202x), IPCablecom Part 8: Signaling Management Information Base (MIB) Requirements (reaffirmation of ANSI/SCTE 24-8-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification describes the IPCablecom Signaling (SIG) MIB requirements.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-9-2016 (R202x), IPCablecom Part 9: Event Messaging Requirements (reaffirmation of ANSI/SCTE 24-9 -2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: IPCablecom identifies and defines specifications for delivery of enhanced communications services using packetized data transmission technology over the cable television hybrid fiber coax (HFC) data network running the DOCSIS® protocol. IPCablecom specifies a network superstructure that overlays the two-way data-ready broadband cable access network.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-10-2016 (R202x), IPCablecom Part 10: Security Specification (reaffirmation of ANSI/SCTE 24-10-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The scope of this document is to define the IPCablecom Security architecture, protocols, algorithms, associated functional requirements, and any technological requirements that can provide for the security of the system for the IPCablecom network. Authentication, access control, signaling and media content integrity, confidentiality, and non-repudiation security services must be provided as defined in this standard for each of the network element interfaces.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 24-11-2016 (R202x), IPCablecom Part 11: Internet Signaling Transport Protocol (ISTP) (reaffirmation of ANSI/SCTE 24-11-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document addresses the protocol to implement SS7 signaling interconnection in a distributed IPCablecom PSTN Gateway architecture. Specifically, it defines the messages and procedures for transporting SS7 ISUP, TCAP, and TUP messages between the IPCablecom control functions (Media Gateway Controller and Call Management Server) and the SS7 Signaling Gateway.
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document describes the TGCP profile of an application programming interface (MGCI) and a corresponding protocol (MGCP) for controlling trunking gateways from external call control elements. A trunking gateway is a network element that provides analog, emulated analog, or digital bearer and channel-associated signaling trunk circuit access to a voice-over-IP (VoIP) network.

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document provides the branch object identifiers for each of the MIBs within the SCTE HMS Tree. This document has been revised; see the Description in the syntax.

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document defines the second generation of radio-frequency interface specifications for high-speed data-over-cable systems. They were developed for the benefit of the cable industry, including contributions by operators and vendors from North America, Europe, and other regions.
Reaffirmation

BSR/SCTE 79-2-2016 (R202x), DOCSIS 2.0 Operations Support System Interface (reaffirmation of ANSI/SCTE 79-2-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification defines the Network Management requirements to support a DOCSIS 2.0 environment. More specifically, the specification details the SNMPv3 protocol and how it coexists with SNMP v1/v2. The RFCs and Management Information Base (MIB) requirements are detailed as well as interface numbering, filtering, event notifications, etc. Basic network-management principles such as account, configuration, fault, and performance management are incorporated in this specification for better understanding of managing a high-speed cable modem environment.

Reaffirmation

BSR/SCTE 79-3-2017 (R2021), DOCSIS 2.0 + IPv6 Cable Modem Specification (reaffirmation of ANSI/SCTE 79-3-2017)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document is an extension to the DOCSIS 2.0 family of standards, which define high-speed data-over-cable systems. For an overview of DOCSIS 2.0, refer to [RF1v2.0]. The [RF1v2.0] specification requires the CM to support IP version 4 for provisioning and management. This present document provides IPv6 provisioning and management functionality for DOCSIS 2.0 CMs, connected IPv6 eSAFEs, and external CPE devices. The term “DOCSIS 2.0+IPv6 CM” is used to represent such cable modems.

Revision

BSR/SCTE 107-202x, Embedded Cable Modem Devices (revision of ANSI/SCTE 107-2017)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification defines additional features that must be added to a DOCSIS cable modem for implementations that embed the cable modem with another application, such as an IPCablecom MTA.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 133-2017 (R202x), Downstream RF Interface (reaffirmation of ANSI/SCTE 133-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document defines the downstream radio-frequency interface [DRFI] specifications for:
- an edgeQAM (EQAM) modular device, or
- an integrated Cable Modem Termination System [CMTS] with multiple downstream channels per RF port, or
- an integrated CMTS beyond DOCSIS 2.0.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The requirements for timing and synchronization of the DOCSIS system come from the following areas:
- Existing DOCSIS specification & ATP requirement;
- Remote PHY system requirements;
- Implementation requirements;
- Emerging services like T-Services and wireless.

SCTE (Society of Cable Telecommunications Engineers)
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Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification is part of the DOCSIS® family of specifications, and in particular, is part of a series of specifications that define a Modular Cable Modem Termination System (M-CMTS™) architecture for head-end components that comply with DOCSIS. This specification was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North America, Europe, and other regions.
SCTE (Society of Cable Telecommunications Engineers)  
140 Philips Rd, Exton, PA  19341   www.scte.org  
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation  
BSR/SCTE 137-3-2017 (R202x), Modular Head End Architecture - Part 3: M-CMTS Operations Support System Interface  
(reaffirmation of ANSI/SCTE 137-3-2017)  
Stakeholders: Cable Telecommunications industry.  
Project Need: Update to current technology.  
Scope: This specification defines the Network Management requirements to support a Modular Cable Modem Termination System (M-CMTS™) for headend components compliant to DOCSIS®. The purpose of this document is to define the management requirements for the M-CMTS architecture that enables an effective operation of the M-CMTS components.

SCTE (Society of Cable Telecommunications Engineers)  
140 Philips Rd, Exton, PA  19341   www.scte.org  
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation  
BSR/SCTE 137-4-2017 (R202x), Modular Head End Architecture - Part 4: Edge Resource Manager Interface  
(reaffirmation of ANSI/SCTE 137-4-2017)  
Stakeholders: Cable Telecommunications industry.  
Project Need: Update to current technology.  
Scope: This document specifies interfaces that are used by Edge QAM devices (EQAMs), Edge Resource Managers (ERMs) and M-CMTS Cores within the context of a Modular Cable Modem Termination System (M-CMTS).

SCTE (Society of Cable Telecommunications Engineers)  
140 Philips Rd, Exton, PA  19341   www.scte.org  
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation  
BSR/SCTE 137-5-2017 (R202x), Modular Head End Architecture - Part 5: Edge QAM Provisioning and Management Interface. (reaffirmation of ANSI/SCTE 137-5-2017)  
Stakeholders: Cable Telecommunications industry.  
Project Need: Update to current technology.  
Scope: This specification is a component of the Modular Headend Architecture; in particular, it defines the Provisioning and Management requirements for the EQAM device.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 137-6-2017 (R202x), Modular Head End Architecture - Part 6: Edge QAM Video Stream Interface
(reaffirmation of ANSI/SCTE 137-6-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification is a component of the Modular Headend Architecture. In particular, it defines the data plane requirements for receiving, processing, and transmitting MPEG transport streams in EQAMs, compliant with the Video EQAM or Universal EQAM profiles described in the Architectural Overview of the Modular Headend Architecture.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This Architectural Overview Technical Report is intended to provide an introduction to the Modular Headend Architecture, with particular emphasis on the EQAM as a key component. This document describes the various architectural entities and the interfaces that connect them, provides an overview of the various profiles of EQAM devices and their operations, and discusses the various specifications that contain normative requirements pertaining to the Modular Headend Architecture.

SCTE (Society of Cable Telecommunications Engineers)
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Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 142-2017 (R202x), Recommended Practice for Transport Stream Verification (reaffirmation of ANSI/SCTE 142-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This Recommended Practice provides a common methodology for describing Transport Stream conformance criteria. This document explicitly describes the elements and parameters of SCTE 54, along with ATSC A/53-3, and A/65 that should be verified in an SCTE Transport Stream for it to be considered a proper emission. It does not cover RF, captioning, or elementary streams.
Reaffirmation
BSR/SCTE 159-1-2017 (R202x), IPCablecom Multimedia - Part 1: Multimedia Application and Service (reaffirmation of ANSI/SCTE 159-1-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: As outlined in the accompanying technical report, the current scope of this standard is limited to network-based QoS resource management and usage auditing capabilities. This approach was motivated by several criteria, including rapid time-to-market for QoS-enhanced Multimedia services (which may take the form of new applications or existing applications retrofitted per this standard), the absence of QoS signaling requirements on CPE devices, and security assurances provided by an absence of client-based QoS signaling.

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification provides a simple, open interface between a generic Application Server (AS) and an IPCablecom Multimedia Application Manager (AM). Specifically, this specification defines a common Web Service (WS) interface to the IPCablecom Multimedia Application Manager (AM) that enables an AS to dynamically request network resources on the cable operator's access network. The primary goal of this interface is to allow AS developers to rapidly create new applications in shorter timeframes and without having a deep knowledge of the cable operator's access technology. This interface is based on the SOAP/eXtensible Markup Language (SOAP/XML).

Reaffirmation
BSR/SCTE 165-2-2016 (R202x), IPCablecom 1.5 - Part 2: Audio/Video Codecs (reaffirmation of ANSI/SCTE 165-2-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document addresses interfaces between IPCablecom client devices for audio and video communication. Specifically, it identifies the audio and video codecs necessary to provide the highest quality and the most resource-efficient service delivery to the customer. This document also specifies the performance required in client devices to support future IPCablecom codecs. Additionally, this document describes a suggested methodology for optimal network support for codecs.
**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA  19341   www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 165-3-2016 (R202x), IPCablecom 1.5 - Part 3: Network-Based Call Signaling Protocol (reaffirmation of ANSI/SCTE 165-3-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification describes a profile of the Media Gateway Control Protocol (MGCP) for IPCablecom-embedded clients, which we will refer to as the “IP Cablecom Network-based Call Signaling (NCS) protocol”. MGCP is a call-signaling protocol for use in a centralized call-control architecture, and assumes relatively simple client devices. The call-signaling protocol is one layer of the overall IPCablecom suite of specifications and relies upon companion protocol specifications to provide complete end-to-end IPCablecom functionality. The scope of NCS is currently only embedded Voice-Over-IP client devices in an IPCablecom environment and the NCS profile has therefore simplified and, in some cases modified, the base MGCP 1.0 protocol accordingly.

**SCTE (Society of Cable Telecommunications Engineers)**
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**Reaffirmation**
BSR/SCTE 165-12-2016 (R202x), IPCablecom 1.5 - Part 12: PSTN Gateway Call Signaling Protocol (reaffirmation of ANSI/SCTE 165-12-2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This document describes an IPCablecom profile of an application programming interface called a Media Gateway Control Interface (MGCI) and a corresponding protocol (MGCP) for controlling voice-over-IP (VoIP) PSTN Gateways from external call-control elements. The MGCP assumes a call-control architecture where the call-control "intelligence" is outside the gateways and is handled by external call-control elements. The IPCablecom profile as described in this document will be referred to as the “IP Cablecom Trunking Gateway Control Protocol (TGCP)”.

**SCTE (Society of Cable Telecommunications Engineers)**
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Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 165-18-2016 (R202x), IPCablecom 1.5 - Part 18: CMS to CMS Signaling (reaffirmation of ANSI/SCTE 165-18 -2016)

Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This specification describes the IPCablecom Call Management Server (CMS) to CMS Signaling protocol intended for use by a CMS to communicate with another CMS in order to support packet-based voice and other real-time multimedia applications. The protocol exchanges between a CMS and a Media Gateway Controller (MGC) are identical to those between CMSs, and so, for purposes of this specification, the MGC is considered identical to a CMS. CMSs currently support multimedia endpoints (within the IPCablecom infrastructure) that use the Network-based Call Signaling (NCS) protocol and the PSTN Gateway Call Signaling Protocol (TGCP) for communicating signaling information between the endpoint and the CMS. In the future, other protocols may be supported as well. The CMS-to-CMS protocol is intended to be sufficiently general to accommodate such protocols without change.
Reaffirmation
BSR/SCTE 165-21-2016 (R202x), IPCablecom 1.5 - Part 21: Signaling Extension MIB (reaffirmation of ANSI/SCTE 165-21 -2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: New objects that are being introduced beyond IPCablecom 1.0 for Signaling MIBS are being grouped in this document so that the additional changes made can be tracked easily.

Reaffirmation
BSR/SCTE 168-6-2017 (R202x), Recommended Practice for Monitoring Multimedia Distribution Quality (reaffirmation of ANSI/SCTE 168-6-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The scope of this Recommended Practice document is to provide background and discussion on Multimedia Management (MMM) system requirements to assist the cable operator with MMM deployment design tradeoffs as well as provide guidance and recommendations on several topics related to the deployment of Multimedia Management systems based on the experiences to date of both the participating committee operators and vendor companies and the directions of ongoing work in the HMS.

Reaffirmation
BSR/SCTE 168-7-2017 (R202x), Recommended Practice for Transport Stream Verification in an IP Transport Network (reaffirmation of ANSI/SCTE 168-7-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This Recommended Practice is to give guidance about detecting errors in the IP Transport network used for the delivery of media services including Video and Audio streams of data with the associated control information to provide MPEG transport through an IP network. The IP Transport Layer operates in conjunction with other Application and Physical component layers that could also generate network impairments, this document will focus on the effect these impairments have on the detection of the cause of problems in the delivery of media services.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
BSR/SCTE 173-1-2017 (R202x), Requirements for Preferential Telecommunications over IPCablecom Networks (reaffirmation of ANSI/SCTE 173-1-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The objective of this standard is to provide an initial set of requirements for preferential telecommunications within IPCablecom networks. Aspects of preferential telecommunications include provisions for Authentication and Priority (Special Handling). These requirements do not apply to ordinary emergency calls such as people calling police, fire department, ambulance, etc. This standard defines requirements for capabilities which, when implemented, should help support emergency telecommunication services. NOTE: Pre-emption requirements and authorization requirements are outside the scope of this standard and are considered to be national matters.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The objective of this Standard is to provide a framework for the implementation of preferential telecommunications services within cable networks as described in ANSI/SCTE 24-1 and ITU-T J.360. This framework is one of the series of Standards addressing these services.

SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Reaffirmation
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard is one of a series of standards to enable support for preferential telecommunication services over IPCablecom networks. These specifications do not apply to ordinary emergency calls such as people calling the police, the fire department, ambulances, etc.
**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 173-4-2017 (R202x), Specification for priority in Preferential Telecommunications over IPCablecom2 Networks (reaffirmation of ANSI/SCTE 173-4-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This Standard defines two options for introducing the priority header during signalling. This Standard defines specifications for capabilities which, when implemented, should help support preferential telecommunication services.

**SCTE (Society of Cable Telecommunications Engineers)**
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

**Reaffirmation**
BSR/SCTE 175-2017 (R202x), Recommended Practice for Qualifying Network Devices for High Availability Streaming Video (reaffirmation of ANSI/SCTE 175-2017)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: The ANSI/SCTE 168 series of Recommended Practices describe IP video networks at MSO Headend, Core, and Hub networks. While all these configurations carry media over IP, the video flow types and distribution, link speeds, and possibly QoS policies are different at various locations. Different mixes of traffic types such as VoIP and data may be present in some locations and not in others. The recommended baseline tests in this document are intended to represent the operation of network devices in these three applications.

**SCTE (Society of Cable Telecommunications Engineers)**
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Contact: Kim Cooney; kcooney@scte.org

**Revision**
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard is part of the DOCSIS® family of specifications. In particular, it is part of a series of standards that defines the fifth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 3.1 standards. This standard was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North and South America, Europe, and Asia.
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341 www.scte.org
Contact: Kim Cooney; kcooney@scte.org

Revision
BSR/SCTE 220-2-202x, DOCSIS 3.1 Part 2: Media Access Control (MAC) and Upper Layer Protocols Interface Specification (revision of ANSI/SCTE 220-2-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard is part of the DOCSIS® family of specifications. In particular, this specification is part of a series of specifications that defines the fifth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 3.1 specifications. This specification was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North and South America, Europe, China, and other regions.

SCTE (Society of Cable Telecommunications Engineers)
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Contact: Kim Cooney; kcooney@scte.org

Revision
BSR/SCTE 220-3-202x, DOCSIS 3.1 Part 3: Cable Modem OSSI Specification (revision of ANSI/SCTE 220-3-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard is part of the DOCSIS® family of specifications. In particular, this specification is part of a series of specifications that defines the fifth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 3.1 specifications. This specification was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North and South America, Europe, China, and other regions.

SCTE (Society of Cable Telecommunications Engineers)
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Contact: Kim Cooney; kcooney@scte.org

Revision
BSR/SCTE 220-4-202x, DOCSIS 3.1 Part 4: CCAP OSSI Specification (revision of ANSI/SCTE 220-4-2016)
Stakeholders: Cable Telecommunications industry.
Project Need: Update to current technology.
Scope: This standard is part of the DOCSIS® family of specifications. In particular, this specification is part of a series of specifications that defines the fifth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 3.1 specifications. This specification was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North and South America, Europe, China, and other regions.
**SCTE (Society of Cable Telecommunications Engineers)**

SCTE (Society of Cable Telecommunications Engineers)  
140 Philips Rd, Exton, PA 19341  www.scte.org  
Contact: Kim Cooney; kcooney@scte.org

**Revision**


Stakeholders: Cable Telecommunications industry.  
Project Need: Update to current technology.  
Scope: This standard is part of the DOCSIS® family of specifications. In particular, this specification is part of a series of specifications that defines the fifth generation of high-speed data-over-cable systems, commonly referred to as the DOCSIS 3.1 specifications. This specification was developed for the benefit of the cable industry, and includes contributions by operators and vendors from North and South America, Europe, China, and other regions.

**UL (Underwriters Laboratories)**

UL (Underwriters Laboratories)  
47173 Benicia Street, Fremont, CA 94538  https://ul.org/  
Contact: Marcia Kawate; Marcia.M.Kawate@ul.org

**New Standard**

BSR/UL 795-202x, Standard for Safety for Commercial-Industrial Gas-Fired Package Boilers (new standard)

Stakeholders: Producers of commercial-industrial package boilers, boiler manufacturer trade associations, Authorities Having Jurisdiction, Users of commercial-industrial package boilers; Other interested parties.  
Project Need: The purpose is to provide an ANSI-approved standard, UL 795, for gas-fired package boilers intended for commercial-industrial installations. In addition to updating requirements to address current technologies and industry practices, this new edition will also include the merger of a UL Standard with a Canadian ORD certification document to form a Joint US/Canada consensus standard. This supports the industry need for harmonizing American and Canadian requirements.  
Scope: These requirements apply to factory-built gas-fired package boilers having input ratings of more than 117,228 W (400,000 Btu/h), per individual combustion chamber, and intended primarily for commercial and industrial installation. These requirements also apply to all high pressure steam and high temperature water gas-fired boiler assemblies regardless of kW (Btu/h) input. Package boilers covered by these requirements are designed to be automatically operated without a competent attendant being constantly on duty at the burners while the appliances are in operation.

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

VITA (VMEbus International Trade Association (VITA))  
929 W. Portobello Avenue, Mesa, AZ 85210  www.vita.com  
Contact: Jing Kwok; jing.kwok@vita.com

**Revision**

BSR/VITA 42.0-202x, XMC Switched Mezzanine Card Auxiliary Standard (revision of ANSI/VITA 42.0-2016)

Stakeholders: VMEbus manufacturers and users, PMC manufacturers and users, embedded board manufacturers and users.  
Project Need: A need exists to develop a standard for implementing high-speed network fabrics on small form-factor mezzanine modules.  
Scope: This document defines an open standard for supporting high-speed, switched interconnect protocols on an existing, widely deployed mezzanine-card-form factor. This revision addresses standoffs to ease in unmating mezzanine cards and higher data-rate protocols.
New Standard
BSR/VITA 88.0-202x, XMC+ Switched Mezzanine Card Auxiliary Standard (new standard)

Stakeholders: VMEbus/VPX, PMC/XMC manufacturers and users, embedded board manufacturers and users.

Project Need: A need exists to develop a standard for implementing high-speed network fabrics on small form-factor mezzanine modules.

Scope: This standard is based on VITA 42.0 XMC and VITA 61 XMC 2.0. It defines an open standard for supporting high-speed, switched interconnect protocols on the existing widely deployed XMC form factor. XMC+ utilizes an alternate, lower mating force, and higher speed mezzanine interconnect based on blade and beam contact technology.
Call for Comment on Standards Proposals

American National Standards

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

Ordering Instructions for "Call-for-Comment" Listings

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

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

* Standard for consumer products

Comment Deadline: March 7, 2021

AARST (American Association of Radon Scientists and Technologists)
527 Justice Street, Hendersonville, NC 28739  p: (202) 830-1110 w: www.aarst.org

Addenda

BSR/AARST MALB 01-Addenda-202x, Protocol for Conducting Measurements of Radon and Radon Decay Products In Schools and Large Buildings (addenda to ANSI/AARST MALB-2014)

This standard of practice specifies procedures and minimum requirements when measuring radon concentrations in shared structures, or portions of shared structures, used for residential, non-residential or mixed use purposes to determine if radon mitigation is necessary to protect current and future occupants. These protocols address low-rise and high-rise structures and procedures for testing whole buildings but also for testing only one or several individual rooms or dwellings within a shared building. This work continues an efforts to harmonize content between AARST MAMF 2017 and AARST MALB 2014 may result in merging these documents due to many mixed-use buildings.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: StandardsAssist@gmail.com


This standard of practice specifies procedures and minimum requirements when measuring radon concentrations in shared structures, or portions of shared structures, used for residential, non-residential or mixed use purposes to determine if radon mitigation is necessary to protect current and future occupants. These protocols address low-rise and high-rise structures and procedures for testing whole buildings but also for testing only one or several individual rooms or dwellings within a shared building. This work continues an efforts to harmonize content between AARST MAMF 2017 and AARST MALB 2014 may result in merging these documents due to many mixed-use buildings.

Click here to view these changes in full
Send comments (with optional copy to psa@ansi.org) to: StandardsAssist@gmail.com
**Comment Deadline: March 7, 2021**

**AVIXA (Audiovisual and Integrated Experience Association)**
11242 Waples Mill Road, Suite 200, Fairfax, VA  22030  p: (703) 273-7200 w: www.avixa.org

*Revision*

BSR/AVIXA V201.01-202x, Image System Contrast Ratio (revision and redesignation of ANSI/INFOCOMM 3M-2011)
This Standard defines image system contrast, expressed as a ratio, and its measurement. It applies to permanently installed and temporary display systems and all displayed images regardless of AV technology (e.g., direct view display, rear projection, front projection). The AV image system includes the display, source equipment, signal path and distribution, and the room environment. System contrast ratio measurements are taken in the system’s typical use case (e.g., classroom with ambient light and a video distribution system throughout the school). Four contrast ratios are defined and are based on content viewing requirements. Practical metrics to measure and validate the required contrast ratios are provided.

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

Send comments (with optional copy to psa@ansi.org) to: Loanna Overcash, lovercash@avixa.org

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**IES (Illuminating Engineering Society)**
120 Wall Street, Floor 17, New York, NY  10005  p: (917) 913-0027 w: www.ies.org

*Addenda*

BSR/IES RP-7-202x, Recommended Practice: Lighting Industrial Facilities (addenda to ANSI/IES RP-7-2020)
The primary purpose of this standard is to serve as a guide and educational tool for the design of permanently installed lighting systems for industrial facilities. This addenda includes missing illumination levels.

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

Send comments (with optional copy to psa@ansi.org) to: Patricia McGillicuddy; pmcgillicuddy@ies.org

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**NSF (NSF International)**
789 N. Dixboro Road, Ann Arbor, MI  48105-9723   p: (734) 418-6660 w: www.nsf.org

*Revision*

BSR/NSF 385-202x (i2r1), Disinfection Mechanics (revision of ANSI/NSF 385-2019)
This Standard is intended for use with devices intended to disinfect wastewater after secondary treatment and prior to discharge from residential wastewater treatment systems having rated treatment capacities between 757 L/day (200 gal/day) and 5678 L/day (1500 gal/day). This Standard also applies to devices intended to be used in water reclamation and reuse. Specific requirements exist for construction and testing of individual disinfection devices based on the technology used by the device. All Devices are required to be tested against the influent challenge water as specified in 1.4 and to meet the minimum effluent quality requirements in accordance with 1.5. Devices shall be tested against the effluent requirements of this Standard unless the manufacturer requests certification under an effluent standard in NSF/ANSI 350 which is more stringent than this Standard.

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

Send comments (with optional copy to psa@ansi.org) to: jsnider@nsf.org

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

*New National Adoption*

This proposal for UL 61010-2-011 provides revisions to the proposal document dated October 30, 2020 per responses to comments received.

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

Send comments (with optional copy to 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 7, 2021

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

Revision
Recirculation of the following balloted topics:
(1) Exception for enclosure air conditioners – Clause 26.3.1;
(4) Ampacities of control circuit conductors;
(7) Clarifications of locked-rotor currents;
(9) Enclosure derating table – Section 19;
(10) Equipment covered by the Standard for Controllers for Use in Power Production, UL/ULC 6200;
(12) Field wiring – Cable Lugs;
(13) Low-voltage fuses – Part 10: Class L fuses;
(14) Low-voltage limited energy circuits in power circuits;
(15) Spacings at field wiring terminals at the supply side of industrial control panels; and
(16) Clarification for Self-protected Combination Motor Controllers or Manual Self-protected Combination Motor Controllers Used as Branch Circuit Protection for Motor Circuits Only.
Click here to view these changes in full
Send comments (with optional copy to 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
This proposal covers the Recycled Thermoplastic Material Test Program - Flame Test Requirements.
Click here to view these changes in full
Send comments (with optional copy to 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: (613) 368-4432 w: https://ul.org/

Revision
BSR/UL 1023-202x, Household Burglar-Alarm System Units (revision of ANSI/UL 1023-2017)
This document proposes revisions to align with the requirements present in other related ANSI standards and to address updates for RF technology currently prevalent in industry. In addition, these updates will harmonize with UL 985, Standard for Household Fire Warning System Units, which is commonly used in conjunction with UL 1023 for combination household fire alarm/burglar alarm system evaluations.
Click here to view these changes in full
Send comments (with optional copy to 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) 549-1851 w: https://ul.org/

Revision
BSR/UL 1203-202x, Standard for Safety for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations (revision of ANSI/UL 1203-2020)
This proposal for UL 1203 provides revisions to the proposal document dated October 23, 2020 per comments received.
Click here to view these changes in full
Send comments (with optional copy to 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 7, 2021

UL (Underwriters Laboratories)
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada  p: (613) 368-4419 w: https://ul.org/

Revision
Topic 1 - Temperature ratings and diameters of vents.
Click here to view these changes in full
Send comments (with optional copy to 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) 549-0973 w: https://ul.org/

Revision
BSR/UL 2166-202X, Standard for Halocarbon Clean Agent Extinguishing System Units (revision of ANSI/UL 2166-2020)
UL is recirculating the proposal dated 8-21-20.
Click here to view these changes in full
Send comments (with optional copy to 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 22, 2021

AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO  80904  p: (719) 453-1036 w: www.aafs.org

New Standard
BSR/ASB BPR 008-202x, Mass Fatality Scene Processing: Best Practice Recommendations for the Medicolegal Authority (new standard)
This document provides definitions, guidelines, and best practices for the detection, processing, and recovery of physical and contextual evidence associated with mass fatality disaster scenes to ensure that evidence is carefully and consistently documented, and recovered in situ. This document focuses on terrestrial scenes that do not involve a significant hazardous materials component. The purpose of these guidelines is to ensure that appropriate strategies are followed for the search and documentation of the scene, and the recovery of human remains, personal effects, and other probative evidence, while maintaining the chain-of-custody of all items, and ensuring that all areas associated with the scene are processed in a systematic manner. The recommended best practices in this document are intended to help promote the highest level of quality in disaster victim search and recovery operations. This document is applicable to the work of medical examiners, coroners, death investigators, and other forensic personnel, as well as public and private medical, forensic, and investigative professionals (and/or volunteers) that may assist a medicolegal authority at a disaster scene with any evidence detection, recording, and/or collection tasks. In the absence of specific guidance, the principle, spirit, and intent of this document should be met.
NOTE: 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) free of charge.
Send comments (with optional copy to psa@ansi.org) to: asb@aafs.org
Comment Deadline: March 22, 2021

AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: www.aafs.org

New Standard

BSR/ASB Std 085-202x, Standard for Detection Canine Selection, Kenneling, and Healthcare (new standard)

This standard covers requirements for the selection, kenneling, and health care pertaining to detection canines. It does not include training methodology standards.

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/

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

AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: www.aafs.org

New Standard

BSR/ASB Std 133-202x, Standard for Age Estimation in Forensic Anthropology (new standard)

Age is one of several biological parameters that can be estimated from skeletal material or medical imaging. This standard provides general procedures for the estimation of age from skeletal material or medical imaging. Specific methods and techniques are not included in the standard.

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

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AAFS (American Academy of Forensic Sciences)
410 North 21st Street, Colorado Springs, CO 80904 p: (719) 453-1036 w: www.aafs.org

New Standard

BSR/ASB Std 146-202x, Standard for Resolving Commingled Remains in Forensic Anthropology (new standard)

This document provides laboratory and field procedures and requirements for resolving commingled remains. The techniques presented include size, age, and sex similarities, articulation between skeletal elements, taphonomic similarities, and reconstruction of fragmentary remains. The document also describes the determination of MNI (Minimum Number of Individuals), as well as the Li (Lincoln Index) and MLNI (Most Likely Number of Individuals) based on the number of paired and unpaired bones.

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) free of charge.

Send comments (with optional copy to psa@ansi.org) to: asb@aafs.org
**Comment Deadline: March 22, 2021**

**AAFS (American Academy of Forensic Sciences)**  
410 North 21st Street, Colorado Springs, CO 80904  p: (719) 453-1036 w: www.aafs.org

**New Standard**

BSR/ASB Std 150-202x, Standard for Determination of Medicolegal Significance from Skeletal Remains in Forensic Anthropology (new standard)

This standard sets procedures required for the determination of medicolegal significance from suspected skeletal remains. It addresses methodological, testing, and observational procedures for identifying skeletal remains as either human or nonhuman in origin and sets required procedures to assess the relevancy of human remains to the medicolegal death investigation system.

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) free of charge.  
Send comments (with optional copy to psa@ansi.org) to: asb@aafs.org

**AGA (ASC Z380) (American Gas Association)**  
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

**Addenda**


Review existing GM and revise as appropriate in light of PHMSA advisory bulletin.

Single copy price: Free  
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/  
Order from: Betsy Tansey; btansey@aga.org  
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

**AGA (ASC Z380) (American Gas Association)**  
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

**Addenda**


Add the methods of grinding, composite sleeves, and direct deposition welding to the type of repairs allowed for transmission pipelines.

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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

**Addenda**


To add GM and references regarding gathering pipelines to certain sections of GM.

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Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org
Comment Deadline: March 22, 2021

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001 p: (202) 824-7337 w: www.aga.org

Addenda
Provide guide material on what to do when the gas company detects liquid hydrocarbons in the wall of their pipe (bubbles appearing on the pipe during the heat fusion process).
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001 p: (202) 824-7337 w: www.aga.org

Addenda
Review new code section for storage and handling of plastic piping and add guide material as appropriate.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001 p: (202) 824-7337 w: www.aga.org

Addenda
Review new code sections for trenchless installation of plastic pipe and add guide material as appropriate.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001 p: (202) 824-7337 w: www.aga.org

Addenda
Clarify GM in response to LB4-2018 comment.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org
Comment Deadline: March 22, 2021

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

Addenda


Review existing GM and address the duties, responsibilities, tasks, and expectations of an inspector for constructing mains under §192.305.

Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

Addenda


Review existing GM and revise as appropriate in light of PHMSA advisory bulletin.

Single copy price: Free
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Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

Addenda


Review and revise as appropriate language related to education of first responders communicating with pipeline companies when the smell of gas is reported and/or detected.

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Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
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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

Addenda


Review and develop GM as appropriate in light of Amendment 192-125.

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Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org
Comment Deadline: March 22, 2021

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

Addenda


Review existing GM and revise as appropriate in light of Amendment 192-125.

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Addenda


Review and develop GM as appropriate in light of Amendment 192-125.

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Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org

AGA (ASC Z380) (American Gas Association)
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Addenda


Review and develop GM as appropriate in light of Amendment 192-125.

Single copy price: Free

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Addenda


Review existing GM and revise as appropriate in light of Amendment 192-125.

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Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org
Call for Comment on Standards Proposals

Comment Deadline: March 22, 2021

AGA (ASC Z380) (American Gas Association)
400 North Capitol Street, NW, Suite 450, Washington, DC 20001  p: (202) 824-7337 w: www.aga.org

Addenda


Review existing GM and revise as appropriate in light of Amendment 192-125.
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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

Addenda


Review existing GM 1.1 and add guidance for combination utilities to provide training on what to do when a customer reports an odor complaint.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
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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

Addenda


Review existing GM and address stakeholder messages regarding the reporting of contacts with and damages to pipelines that do not result in a leak.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
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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

Addenda


Clarify issues regarding Main Body membership for the different divisions, and interest groups.
Single copy price: Free
Obtain an electronic copy from: https://www.aga.org/events-community/committees/ansi-asc-gptc-z380---gas-piping-technology/
Order from: Betsy Tansey; btansey@aga.org
Send comments (with optional copy to psa@ansi.org) to: GPTC@aga.org
Comment Deadline: March 22, 2021

APTech (ASC CGATS) (Association for Print Technologies)
1896 Preston White Drive, Reston, VA 20191  p: (703) 264-7200 w: www.printtechnologies.org

Revision


This part of CGATS specifies a limited number of characterized reference printing conditions that span the expected range of color gamuts used for the production of printed material from digital data, regardless of printing process used.

Single copy price: $22.00
Obtain an electronic copy from: dorf@aptech.org
Order from: Debra Orf; dorf@aptech.org
Send comments (with optional copy to psa@ansi.org) to: Same

ASC X9 (Accredited Standards Committee X9, Incorporated)
275 West Street, Suite 107, Annapolis, MD  21401  p: (410) 267-7707 w: www.x9.org

New Standard


X9.143 describes a method consistent with the key blocking requirements of ANSI X9.24 parts 1, 2, & 3 for Retail Financial Services. Due to an increased usage of TR 31, X9 has standardized this key block specification in order to add SHALL statements to ensure full compliance with key blocking requirements and ensure better interoperability.

Single copy price: $70.00
Obtain an electronic copy from: ambria.frazier@x9.org
Send comments (with optional copy to psa@ansi.org) to: Ambria Frazier; Ambria.frazier@x9.org

ASTM (ASTM International)
100 Barr Harbor Drive, West Conshohocken, PA  19428-2959  p: (610) 832-9744 w: www.astm.org

Revision


https://www.astm.org/ANSI_SA

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ASTM (ASTM International)
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959  p: (610) 832-9744 w: www.astm.org

Revision
BSR/ASTM F859-202x, Specification for Heat-Sanitizing Commercial Dishwashing Machines, Multiple Tank, Conveyor Rack Type (revision of ANSI/ASTM F859-2015)
https://www.astm.org/ANSI_SA
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Comment Deadline: March 22, 2021

**ASTM (ASTM International)**
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*Withdrawal*

https://www.astm.org/ANSI_SA

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**ATCC (American Type Culture Collection)**
10801 University Boulevard, Manassas, VA 20110-2209 p: (703) 365-2700 ext. 2546 w: www.atcc.org

*Revision*

BSR/ATCC ASN-0002-202x, Authentication of Human Cell Lines: Standardization of Short Tandem Repeat (STR) Profiling (revision of ANSI/ATCC ASN-0002-2011)

The revision is drastically changed from the original version and expanded with many new sections explaining different aspects of STR profiling of human cell lines, including: guidelines for avoiding cell line cross-contaminations, explanations of the data and associated artifacts, descriptions of how cell lines can differ from each other due to being mixed cultures or manifesting microsatellite instability (MSI), and other types of results. The text is aimed at both the laboratory personnel who produce and process the data (personnel in core and commercial labs) and at the research laboratory personnel from PI to student who must interpret the results. The goals of this new revision are that all of these researchers understand their STR data, can interpret them correctly, and can identify when the results are not valid. This understanding is essential for the production of valid STR profiles for human cell lines so that we can avoid using misidentified cell lines in biomedical research.

Single copy price: $100.00
Obtain an electronic copy from: standards@atcc.org
Order from: CHRISTOPHER.KORCH@CUANSCHUTZ.EDU
Send comments (with optional copy to psa@ansi.org) to: standards@atcc.org; CHRISTOPHER.KORCH@CUANSCHUTZ.EDU

**ECIA (Electronic Components Industry Association)**
13873 Park Center Road, Suite 315, Herndon, VA 20171 p: (571) 323-0294 w: www.ecianow.org

*Reaffirmation*

BSR/EIA 977-2017 (R202x), Test Method Electronic Passive Components Exposure to Atmospheric Sulfur (reaffirmation of ANSI/EIA 977-2017)

This standard defines options for testing passive electronic components for susceptibility to the effects of environmental sulfur. Such susceptibility results in the corrosion of silver in the presence of sulfur compounds in a liquid or gaseous state, potentially leading to component failure.

Single copy price: $76.00
Obtain an electronic copy from: www.global.ihs.com
Send comments (with optional copy to psa@ansi.org) to: Edward Mikoski; emikoski@ecianow.org

**MHI (ASC MHC) (Material Handling Industry)**
8720 Red Oak Boulevard, Suite 201, Charlotte, NC 28217 p: (704) 714-8755 w: www.mhi.org

*Revision*

BSR MH1-202X, Pallets, Slip Sheets, and Other Bases for Unit Loads (revision of ANSI MH1-2016)

The purpose of this standard is to serve as the guide for designers, manufacturers, sellers, installers, owners, users, and governing bodies in the design, manufacturing, and use of pallets, slip sheets, and other bases for unit loads.

Single copy price: Free
Obtain an electronic copy from: pdavison@mhi.org
Send comments (with optional copy to psa@ansi.org) to: Patrick Davison; pdavison@mhi.org
Comment Deadline: March 22, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

NFPA FIRE PROTECTION STANDARDS DOCUMENTATION
The National Fire Protection Association announces the availability of the NFPA Second Draft Report for concurrent review and comment by NFPA and ANSI. These Second Draft Reports contain the disposition of public comment(s) that were received for standards in the 2021 Annual Revision Cycle (available for review on the next edition tab for each standard). All Notices of Intent to Make A Motion on the 2021 Annual Revision Cycle Second Draft Report must be received by the following date: February 17, 2021.
For more information on the rules and deadlines for NFPA standards in cycle, please check the NFPA website (www.nfpa.org) or contact Standards Administration at NFPA. Those who submit comments to NFPA’s online submission system on the 2021 Annual Revision Cycle Standards are invited to copy ANSI’s Board of Standards Review.

Revision
Portable carbon dioxide equipment is covered in NFPA 10. The use of carbon dioxide for inerting is covered in NFPA 69. This standard contains minimum requirements for carbon dioxide fire-extinguishing systems. This standard includes only the necessary essentials to make it workable in the hands of those skilled in this field.
Obtain an electronic copy from: www.nfpa.org/12
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision
For more information, see NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems, and NFPA 70, National Electrical Code, Article 695. This standard deals with the selection and installation of pumps supplying liquid for private fire protection. The scope of this document shall include liquid supplies; suction, discharge, and auxiliary equipment; power supplies, including power supply arrangements; electric drive and control; diesel engine drive and control; steam turbine drive and control; and acceptance tests and operation. This standard does not cover system liquid supply capacity and pressure requirements, nor does it cover requirements for periodic inspection, testing, and maintenance of fire pump systems. This standard does not cover the requirements for installation wiring of fire pump units.
Obtain an electronic copy from: www.nfpa.org/20
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA  02269-9101  p: (617) 984-7248 w: www.nfpa.org

Revision
BSR/NFPA 80-202x, Standard for Fire Doors and Other Opening Protectives (revision of ANSI/NFPA 80-2019)
This standard regulates the installation and maintenance of assemblies and devices used to protect openings in walls, floors, and ceilings against the spread of fire and smoke within, into, or out of buildings. See Annex K for general information about fire doors. With the exception of fabric fire curtain assemblies, this standard addresses assemblies that have been subjected to standardized fire tests. (See Chapter 20.) No fire test standard requirement currently exists to which fabric fire safety curtain assemblies can be tested. Only the curtain fabric is tested in accordance with ASTM E119, Standard Test Methods for Fire Tests of Building Construction and Materials. The perimeter and internal framework and all supporting, guide, and operating components used in specific applications are not tested. Variations in size of proscenium openings and the amount of side and head clearances available for individual stages dictate the number of variations in design of the assemblies. Incinerator doors, record room doors, and vault doors are not covered in this standard. For requirements on their installation, see NFPA 82, Standard on Incinerators and Waste and Linen Handling Systems and Equipment, and NFPA 232, Standard for the Protection...
Obtain an electronic copy from: www.nfpa.org/80
Send comments (with optional copy to psa@ansi.org) to: Same
Comment Deadline: March 22, 2021

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision


This standard shall apply to structures in the course of construction, alteration, or demolition, including those in underground locations. General requirements applying to construction and demolition are contained in Chapter 1 and Chapters 3 through 7; specific requirements for construction and alteration activities are found in Chapter 8; those requirements specific to roofing operations are covered in Chapter 9; those requirements specific to demolition activities are covered in Chapter 10; and specific requirements for activities in underground locations are contained in Chapter 11.

Obtain an electronic copy from: www.nfpa.org/241
Send comments (with optional copy to psa@ansi.org) to: Same

NFPA (National Fire Protection Association)
One Batterymarch Park, Quincy, MA 02269-9101 p: (617) 984-7248 w: www.nfpa.org

Revision


This standard contains minimum requirements for total flooding and local application of a clean-agent fire extinguishing systems. It does not cover fire extinguishing systems that use carbon dioxide or water as the primary extinguishing media, which are addressed by other NFPA documents.

Obtain an electronic copy from: www.nfpa.org/2001
Send comments (with optional copy to psa@ansi.org) to: Same

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723 p: (734) 827-5643 w: www.nsf.org

Revision

BSR/NSF/CAN 600-202x (i5r1), Health Effects Evaluation and Criteria for Chemicals in Drinking Water (revision of ANSI/NSF/CAN 600-2019)

The Standard defines the toxicological review and evaluation procedures for the evaluation of substances imparted to drinking water through contact with drinking water system components (and drinking water additives). It is intended to establish the human health risk, if any, of the substances imparted to drinking water under the anticipated use conditions of the product. Table 4.1 of this Standard contains evaluation criteria that have been determined according to the requirements of this Standard.

Single copy price: Free
Send comments (with optional copy to psa@ansi.org) to: Monica Leslie; mleslie@nsf.org

UL (Underwriters Laboratories)
12 Laboratory Drive, Research Triangle Park, NC 27709-3995 p: (919) 316-5147 w: https://ul.org/

Revision

BSR/UL 73-202x, Standard for Safety for Motor-Operated Appliances (revision of ANSI/UL 73-2020)

(1) Proposed revision to replace the references to the Standard for Power Conversion Equipment, UL 508C, with reference to the Standard for Adjustable Speed Electric Power Drive Systems, UL 61800-5-1.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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 22, 2021

UL (Underwriters Laboratories)
12 Laboratory Drive, Research Triangle Park, NC 27709-3995  p: (919) 316-5147 w: https://ul.org/

Revision
BSR/UL 283-202x, Standard for Safety for Air Fresheners and Deodorizers (revision of ANSI/UL 283-2016)
(1) Proposed revision to replace the references to the Standard for Power Conversion Equipment, UL 508C, with reference to the Standard for Adjustable-Speed Electric Power Drive Systems, UL 61800-5-1.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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) 316-5147 w: https://ul.org/

Revision
(1) Proposed revision to replace the references to the Standard for Power Conversion Equipment, UL 508C, with reference to the Standard for Adjustable Speed Electric Power Drive Systems, UL 61800-5-1.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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) 316-5147 w: https://ul.org/

Revision
(1) Proposed revision to replace the references to the Standard for Power Conversion Equipment, UL 508C, with reference to the Standard for Adjustable Speed Electric Power Drive Systems, UL 61800-5-1.

Single copy price: Free
Order from: http://www.shopulstandards.com
Send comments (with optional copy to 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

VITA (VMEbus International Trade Association (VITA))
929 W. Portobello Avenue, Mesa, AZ 85210  p: (602) 281-4497 w: www.vita.com

New Standard
BSR/VITA 68.2-202x, VPX Standard S-Parameter Definition (new standard)
VITA 68.2 is a dot standard based off of VITA 68 family of standards for signal integrity compliance of VPX systems and components. VITA 68.2 leverages [VITA 68.0] S-parameter definition and expands upon how the S-parameters are formatted and named to help system integrators easily take multiple vendor S-parameters, concatenate them together to analyze an entire channel from one plug-in module to another plug-in module.

Single copy price: $25.00
Obtain an electronic copy from: admin@vita.com
Send comments (with optional copy to psa@ansi.org) to: admin@vita.com
**Comment Deadline: March 22, 2021**

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

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

**Reaffirmation**

BSR/VITA 66.4-2016 (R202x), Optical Interconnect on VPX - Half Width MT Variant (reaffirmation of ANSI/VITA 66.4-2016)

This document describes an open standard to define a Half-Width MT style contact variant within the VITA 66 family of blind-mate Fiber Optic interconnects for use with VPX backplanes and plug-in modules.

Single copy price: $25.00

Obtain an electronic copy from: admin@vita.com

Send comments (with optional copy to psa@ansi.org) to: admin@vita.com

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

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

**Reaffirmation**

BSR/VITA 76-2016 (R202x), High Performance Cable Standard - Ruggedized 10 Gbaud Bulkhead Connector for Cu and AOC Cables (reaffirmation of ANSI/VITA 76-2016)

This standard defines a rugged standardized 10 Gbaud interconnect system with high pin count and high density for I/O. It is capable of supporting multiple protocols and power while being interoperable with both copper cabling and active optic cabling.

Single copy price: $25.00

Obtain an electronic copy from: admin@vita.com

Send comments (with optional copy to psa@ansi.org) to: admin@vita.com

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**Comment Deadline: April 6, 2021**

**UL (Underwriters Laboratories)**

12 Laboratory Drive, Research Triangle Park, NC 27709-3995  p: (919) 549-0973 w: https://ul.org/

**Revision**

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

BSR/UL 33-202X, Standard for Heat Responsive Links for Fire-Protection Service (revision of ANSI/UL 33-2010 (R2020))

UL proposes a new edition of UL 33.

Single copy price: Free


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

Send comments (with optional copy to 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) 549-0973 w: https://ul.org/

**Revision**

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

BSR/UL 199-202X, Standard for Automatic Sprinklers for Fire-Protection Service (revision of ANSI/UL 199-2020)

UL proposes a new edition of UL 199.

Single copy price: Free


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

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

**API (American Petroleum Institute)**
200 Massachusetts Avenue NW, Washington, DC 20001 p: (202) 682-8190 w: www.api.org
BSR/API Standard 505-202x, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2 (new standard)
Inquiries may be directed to Duane Brown; brownd@api.org

**ASTM (ASTM International)**
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 p: (610) 832-9744 w: www.astm.org
BSR/ASTM D7856-202x, Specification for Color and Appearance Retention of Solid and Variegated Color Plastic Siding Products using CIELab Color Space (revision of ANSI/ASTM D7856-2015A)
Inquiries may be directed to Laura Klineburger; accreditation@astm.org

**ASTM (ASTM International)**
100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 p: (610) 832-9744 w: www.astm.org
https://www.astm.org/ANSI_SA
Inquiries may be directed to Laura Klineburger; accreditation@astm.org

**NEMA (National Electrical Manufacturers Association)**
1300 North 17th Street, Suite 900, Rosslyn, VA 22209 p: (703) 841-3238 w: www.nema.org
BSR/NEMA/MITA 2-201X, Requirements for Servicing of Medical Imaging Equipment (new standard)
This standard describes and defines the minimum requirements to document service of medical imaging equipment intended to be used on patients to ensure its return to a safe and effective condition, including actions such as repair, rework, update of software/hardware, replacement of parts with qualified parts and the use of test equipment for servicing medical imaging equipment.
Inquiries may be directed to Peter Weems; pweems@medicalimaging.org

**NEMA (National Electrical Manufacturers Association)**
1300 North 17th Street, Suite 900, Rosslyn, VA 22209 p: (703) 841-3238 w: www.nema.org
BSR/NEMA/MITA 3-201X, Quality management requirements for servicing of medical devices (new standard)
Inquiries may be directed to Peter Weems; pweems@medicalimaging.org

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

**API (American Petroleum Institute)**
200 Massachusetts Avenue NW, Washington, DC 20001 p: (202) 682-8190 w: www.api.org
ANSI/API 671/ISO Standard 10441-2007 (R2010), Special Purpose Couplings for Petroleum, Chemical and Gas Industry Services
Questions may be directed to: Duane Brown; brownd@api.org
Withdrawal of an ANS by ANSI-Accredited Standards Developer

API (American Petroleum Institute)
200 Massachusetts Avenue NW, Washington, DC 20001  p: (202) 682-8190 w: www.api.org

ANSI/API Standard 610-2009, Centrifugal Pumps for Petroleum, Petrochemical and Natural Gas Industries

Questions may be directed to: Duane Brown; brownd@api.org
Final Actions on American National Standards

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

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

Reaffirmation
ANSI/ANS 15.2-1999 (R2021), Quality Control for Plate-Type Uranium-Aluminum Fuel Elements (reaffirmation of ANSI/ANS 15.2-1999 (R2016)) Final Action Date: 1/28/2021

Reaffirmation

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

Addenda

Addenda

Addenda

Addenda

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

New Standard

ASSP (ASC A10) (American Society of Safety Professionals)
520 N. Northwest Highway, Park Ridge, IL  60668  p: (847) 768-3411 w: www.assp.org

Revision
ANSI/ASSP A10.34-2021, Protection of the Public on or Adjacent to Construction Sites (revision and redesignation of ANSI/ASSE A10.34-2001 (R2012)) Final Action Date: 2/1/2021
AWWA (American Water Works Association)
6666 W. Quincy Avenue, Denver, CO 80235  p: (303) 347-6178 w: www.awwa.org

Revision
ANSI/AWWA D100-2021, Welded Carbon Steel Tanks for Water Storage (revision of ANSI/AWWA D100-2011) Final Action Date: 1/28/2021

CEMA (Conveyor Equipment Manufacturers Association)
1250 Tamiami Trail N, Suite 211, Naples, FL 34102 p: (239) 260-8009 w: www.cemanet.org

Revision
ANSI/CEMA Standard No. 300-2021, Screw Conveyor Dimensional Standards (revision and redesignation of ANSI/CEMA 300-2015) Final Action Date: 1/26/2021

Revision

CSA (CSA America Standards Inc.)
8501 E. Pleasant Valley Road, Cleveland, OH 44131  p: (216) 524-4990 w: www.csagroup.org

Reaffirmation

CTA (Consumer Technology Association)
1919 South Eads Street, Arlington, VA 22202  p: (703) 907-7697 w: www.cta.tech

* New Standard
ANSI/CTA 861-H-2021, A DTV Profile for Uncompressed High Speed Digital Interfaces (new standard) Final Action Date: 1/28/2021

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

Revision
ANSI E1.6-1-2021, Entertainment Technology - Powered Hoist Systems (revision of ANSI E1.6-1-2019) Final Action Date: 1/26/2021

NEMA (ASC C18) (National Electrical Manufacturers Association)
1300 North 17th Street, Rosslyn, VA 22209  p: (703) 841-3278 w: www.nema.org

* Revision

NSF (NSF International)
789 N. Dixboro Road, Ann Arbor, MI 48105-9723  p: (734) 827-3817 w: www.nsf.org

Revision
SCTE (Society of Cable Telecommunications Engineers)
140 Philips Rd, Exton, PA 19341  p: (800) 542-5040 w: www.scte.org

New Standard
ANSI/SCTE 260-3-2020, DPoE Metro Ethernet Forum Specification (new standard) Final Action Date: 1/28/2021

New Standard
ANSI/SCTE 260-4-2020, DPoE MAC and Upper Layer Protocols Interface (new standard) Final Action Date: 1/28/2021

New Standard
ANSI/SCTE 260-5-2020, DPoE OAM Extensions Specification (new standard) Final Action Date: 1/28/2021

New Standard
ANSI/SCTE 260-6-2020, DPoE Operations and Support System Interface Specification (new standard) Final Action Date: 1/28/2021

New Standard
ANSI/SCTE 260-7-2020, DPoE Physical Layer Specification (new standard) Final Action Date: 1/28/2021

UL (Underwriters Laboratories)
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada  p: (613) 368-4417 61017 w: https://ul.org/

New Standard
ANSI/UL 2152-2021, Standard for Special Purpose Nonmetallic Containers and Tanks for Specific Combustible or Noncombustible Liquids (new standard) Final Action Date: 1/26/2021

Revision

Revision

Revision
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.

ANSI Accredited Standards Developer

AAMI (Association for the Advancement of Medical Instrumentation)

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


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.


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.


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.


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

CGA - Compressed Gas Association

CGA G-13, Storage and Handling of Silane and Silane Mixtures

The Compressed Gas Association (CGA) is working to complete the formation of the consensus body for the proposed American National Standard (ANS) CGA G-13, Storage and Handling of Silane and Silane Mixtures. The purpose of this standard is to prescribe the controls for the installation of silane systems and the recommended methods for storage or transfer of silane or its mixtures from a source of supply to a point of use to provide protection against injury, loss of life and property damage. This standard governs the installation of systems and sources that are used to store, transfer, or contain silane or silane mixtures. This standard includes guidance for siting, design of equipment, piping and controls, and the fabrication and installation of silane gas storage and closed-use systems. Additional guidance on operational steps associated with the use of silane and silane mixtures as well as fire protection, gas monitoring, ventilation, and related safeguards are provided. This consensus body is currently seeking voting members in the following categories:

- Producers; and
- Distributors/retailers

Contact: Tom Deary, P: (703) 788-2716, E: tdeary@cganet.com

CGA (Compressed Gas Association, Inc) 8484 Westpark Drive, McLean, Virginia 22102
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. 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.

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

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 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

SCTE (Society of Cable Telecommunications Engineers)

SCTE, an ANSI-accredited SDO, is the primary organization for the creation and maintenance of standards for the cable telecommunications industry. SCTE’s standards mission is to develop standards that meet the needs of cable system operators, content providers, network and customer premises equipment manufacturers, and all others who have an interest in the industry through a fair, balanced and transparent process.

SCTE is currently seeking to broaden the membership base of its ANS consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities. Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE’s membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.

Membership in the SCTE Standards Program is open to all directly and materially affected parties as defined in SCTE’s membership rules and operating procedures. More information is available at www.scte.org or by e-mail from standards@scte.org.
American National Standards (ANS) Announcements

ANSI Accredited Standards Developer

ACP - American Clean Power Association

Redesignated Proposed ANS Effective January 1, 2021

The following proposed ANS Designations and Titles have been changed in accordance with the recent organizational merger of American Wind Energy Association (AWEA) with the American Clean Power Association (ACP). The organizations officially merged on January 1, 2021.

Please direct inquiries to Michele Myers-Mihelic; mmihelic@cleanpower.org.

BSR/ACP OCRP-5-202x, Recommended Practices for Submarine Cables
(Previously known as AWEA OCRP-5)

BSR/ACP OCRP-3-202x, U.S. Offshore Wind Metocean Conditions Characterization Recommended Practices
(Previously known as AWEA OCRP-3)

BSR/ACP OCRP-2-202x, U.S. Floating Wind Systems Recommended Practices
(Previously known as AWEA OCRP-2)

BSR/ACP OCRP-1-202x, Offshore Compliance Recommended Practices (OCRP) Edition 2
(Previously known as AWEA OCRP-1)

BSR/ACP OCRP-4-202x, U.S. Recommended Practices for Geotechnical and Geophysical Investigations and Design
(Previously known as AWEA OCRP-4)

BSR/ACP 61400-26-1-202x, Wind energy generation systems - Part 26-1: Availability for wind energy generation systems
(identical adoption of IEC 61400-26-1(2019))
(Previously known as AWEA 61400-26-1)

BSR/ACP 5000-1-202x, The Wind Workforce Definitions 2020
(Previously known as AWEA 5000-1)

BSR/ACP 5000-2-202x, Wind Tech Entry-Level Minimum Standard
(Previously known as AWEA 5000-2)

BSR/ACP 61400-1-202x, Wind Energy Generation Systems – Part 1: Design requirements – Modified Adoption of IEC 61400-1
(Previously known as AWEA-61400-1)

BSR/ACP 61400-6-202x, Wind Energy Generation Systems – Part 6: Tower and foundation design requirements – Modified Adoption of IEC 61400-6
(Previously known as AWEA-61400-6)

BSR/ACP 101-1-202x, The Small Wind Turbine Standard
(Previously known as AWEA 101-1)

BSR/ACP RP 1001-2-202x, Recommended Practice for Offshore Safety Training and Medical Requirements
(Previously known as AWEA RP 1001-2)
Approval of Reaccreditation – ASD
Argentum - Expanding Senior Living

Effective January 28, 2021

The reaccreditation of Argentum – Expanded Senior Living, 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 Argentum-sponsored American National Standards, effective January 28, 2021. For additional information, please contact: Mr. John Schulte, Vice President, Quality Improvement, Argentum – Expanded Senior Living, 1650 King Street, 6th Floor, Alexandria, VA 22314; phone: 703.298.4567; email: jschulte@argentum.org
Meeting Notices (Standards Developers)

ANSI Accredited Standards Developer

RIA - Robotic Industries Association

R15.06, Industrial Robot Safety, R15.08, Industrial Mobile Robot Safety, R15 Standards Approval Committee (SAC)

1) ANSI-Accredited Standards Committee: R15.06, Industrial Robot Safety
   Meeting Format & Location: Remote via GoToMeeting
   Purpose: Comment resolution for TR 906, Safety-related software; set priorities and meeting schedule for rest of 2021.
   Day/Date/Time: The meeting will be held in two sessions with a lunch break in the middle:
   Monday, 03/08/21, from 10 AM – 3 PM ET (7 AM – 12 Noon PT)

(2) ANSI-Accredited Standards Committee: R15.08, Industrial Mobile Robot Safety
   Meeting Format & Location: Remote via GoToMeeting
   Purpose: Review, discuss, and approve Detailed Outline for R15.08, Part 2, Safety requirements for industrial mobile robot systems and system integration. Set priorities and meeting schedule for rest of 2021.
   Day/Date/Time: The meeting will be held in several sessions as follows:
   Monday, 03/08/21, from 4 - 6 PM ET (1 – 3 PM PT)
   Tuesday, 03/09/21, from 10 AM – 5 PM ET (7 AM – 2 PM PT), with 2 breaks

(3) ANSI-Accredited Standards Committee: R15 Standards Approval Committee (SAC)
   Meeting Format & Location: Remote via GoToMeeting
   Purpose: Discuss draft documents being prepared by drafting subcommittees. Set priorities and meeting schedule for rest of 2021.
   Day/Date/Time: The meeting will be held in 2 sessions with a break in the middle:
   Thursday, 03/11/21, from 1:30 – 6 PM ET (10:30 AM – 3 PM PT)

All meetings listed above are sponsored by: Robotic Industries Association (RIA), a division of the Association for Advancing Automation (A3)
For More Information: Contact Carole Franklin, cfranklin@robotics.org
American National Standards (ANS) Process

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

Where to find Procedures, Guidance, Interpretations and More...

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

- ANSI 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
- ANS Procedures, ExSC Interpretations and Guidance (including a slide deck on how to participate in the ANS process and the BSR-9 form): www.ansi.org/asd
- Lists of ANSI-Accredited Standards Developers (ASDs), Proposed ANS and Approved ANS: www.ansi.org/asd
- American National Standards Key Steps: www.ansi.org/anskeysteps
- American National Standards Value: www.ansi.org/ansvalue
- Information about standards Incorporated by Reference (IBR): https://ibr.ansi.org/
- ANSI - Education and Training: www.standardslearn.org

If you have a question about the ANS process and cannot find the answer, please email us at: psa@ansi.org. Please also visit Standards Boost Business at 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.

- 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 wwwansiorg/asd, select “American National Standards Maintained Under Continuous Maintenance.” Questions? psaansiorg.
## 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.

<table>
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ISO Standards

**Agricultural Food Products (TC 34)**

ISO/DIS 22949-1, Molecular biomarker analysis - Methods of analysis for the detection and identification of animal species in foods and food products (nucleotide sequencing-based methods) - Part 1: General requirements - 4/23/2021, $82.00

**Air Quality (TC 146)**

ISO/DIS 23320, Workplace air - Gases and vapours - Requirements for evaluation of measuring procedures using diffusive samplers - 4/17/2021, $107.00

**Anaesthetic and Respiratory Equipment (TC 121)**

ISO/DIS 5361, Anaesthetic and respiratory equipment - Tracheal tubes and connectors - 4/18/2021, $119.00

ISO/DIS 5367, Anaesthetic and respiratory equipment - Breathing sets and connectors - 4/23/2021, $93.00

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

**Dimensional and Geometrical Product Specifications and Verification (TC 213)**

ISO/DIS 10360-11, Geometrical product specifications (GPS) - Acceptance and reverification tests for coordinate measuring systems (CMS) - Part 11: CMSs using the principle of X-ray computed tomography (CT) - 4/23/2021, $134.00

**Gas Cylinders (TC 58)**

ISO/DIS 23876, Gas cylinders - Cylinders and tubes of composite construction - Acoustic emission examination (AT) for periodic inspection and testing - 4/22/2021, $67.00

**Industrial Automation Systems and Integration (TC 184)**


**Microbeam Analysis (TC 202)**

ISO/DIS 23703, Microbeam analysis - Guideline for misorientation analysis to assess mechanical damage of austenitic stainless steel by electron backscatter diffraction (EBSD) - 4/17/2021, $93.00

**Paper, Board and Pulps (TC 6)**

ISO/DIS 13820, Paper, board and corrugated fibreboard - Description and calibration of fixed platen compression-testing equipment - 4/16/2021, $33.00

**Plain Bearings (TC 123)**

ISO/DIS 4384-2, Plain bearings - Hardness testing of bearing metals - Part 2: Solid materials - 4/24/2021, $29.00

**Plastics (TC 61)**

ISO/DIS 1888, Textile glass - Staple fibres or filaments - Determination of average diameter - 4/22/2021, $40.00

ISO/DIS 15013, Plastics - Extruded sheets of polypropylene (PP) - Requirements and test methods - 4/22/2021, $46.00

ISO/DIS 15527, Compression-moulded sheets of polyethylene (PE-UHMW, PE-HMW, PE-HD) - Requirements and test methods - 11/13/2002, $53.00

**Refrigeration (TC 86)**

ISO/DIS 24664, Refrigerating systems and heat pumps - Pressure relief devices and their associated piping - Methods for calculation - 4/18/2021, $98.00
ISO & IEC Draft International Standards

ROAD VEHICLES (TC 22)
ISO/DIS 5685, Road vehicles - Testing the abrasion resistance of automotive glazing with the windscreen wiper test - 4/18/2021, $93.00

RUBBER AND RUBBER PRODUCTS (TC 45)
ISO/DIS 18064, Thermoplastic elastomers - Nomenclature and abbreviated terms - 4/23/2021, $40.00
ISO/DIS 23508, Solution-polymerized SBR - Evaluation methods of viscoelastic properties - 4/23/2021, $77.00

SHIPS AND MARINE TECHNOLOGY (TC 8)
ISO/DIS 23446, Marine technology - Guidelines for product water quality of seawater reverse osmosis (RO) desalination for municipal water supply - 4/25/2021, $46.00

STEEL (TC 17)
ISO/DIS 23213, Carbon steel wire for bedding and seating springs - 4/24/2021, $46.00

STERILIZATION OF HEALTH CARE PRODUCTS (TC 198)
ISO 25424/DAmd1, Sterilization of health care products - Low temperature steam and formaldehyde - Requirements for development, validation and routine control of a sterilization process for medical devices - Amendment 1 - 4/23/2021, $40.00

WATER QUALITY (TC 147)
ISO/DIS 5667-26, Water quality - Sampling - Part 26: Guidance on sampling for the parameters of the oceanic carbon dioxide system - 4/23/2021, $46.00

IEC Standards
2/2045/FDIS, IEC 60773 ED2: Rotating electrical machines - Test methods and apparatus for the measurement of the operational characteristics of brushes, 03/12/2021
9/2685/NP, PNW 9-2686 ED1: Railway applications - Fixed installations - Electronic power converters - Part 2-2: DC Applications - Controlled converters, 03/26/2021
17A/1296/FDIS, IEC 62271-106 ED2: High-voltage switchgear and controlgear - Part 106: Alternating current contactors, contactor-based controllers and motor-starters, 03/12/2021
20/1948/CDV, IEC 60800 ED4: Heating cables with a rated voltage of 300/500 V for comfort heating and prevention of ice formation, 04/23/2021
22H/267/FDIS, IEC 62040-3 ED3: Uninterruptible power systems (UPS) - Part 3: Method of specifying the performance and test requirements, 03/12/2021
23A/950/FDIS, IEC 61386-21 ED2: Conduit systems for cable management - Part 21: Particular requirements - Rigid conduit systems, 03/12/2021
23A/951/FDIS, IEC 61386-22 ED2: Conduit systems for cable management - Part 22: Particular requirements - Pliable conduit systems, 03/12/2021
23A/952/FDIS, IEC 61386-23 ED2: Conduit systems for cable management - Part 23: Particular requirements - Flexible conduit systems, 03/12/2021
34A/2232/FDIS, IEC 60809 ED4: Lamps and light sources for road vehicles - Dimensional, electrical and luminous requirements, 03/12/2021
40/2821/FDIS, IEC 60384-2 ED5: Fixed capacitors for use in electronic equipment - Part 2: Sectional specification - Fixed metallized polyethylene terephthalate film dielectric DC capacitors, 03/12/2021
40/2822/FDIS, IEC 60286-1/AMD1 ED3: Amendment 1 - Packaging of components for automatic handling - Part 1: Tape packaging of components with axial leads on continuous tapes, 03/12/2021
46A/1459/CDV, IEC 61196-7 ED2: Coaxial communication cables - Part 7: Sectional specification for cables for BCT cabling in accordance with ISO/IEC 11801-4 - Indoor drop cables for systems operating at 5 MHz - 6 000 MHz, 04/23/2021
47A/1114/CD, IEC 62228-7 ED1: Integrated circuits - EMC evaluation of transceivers - Part 7: CKPI transceivers, 03/26/2021
48B/2864/FDIS, IEC 61076-3-122 ED2: Connectors for electrical and electronic equipment - Product requirements - Part 3-122: Detail specification for 8-way, shielded, free and fixed connectors for I/O and data transmission with frequencies up to 500 MHz and current-carrying capacity in industrial environments, 03/12/2021
48D/736/FDIS, IEC 61587-6 ED2: Mechanical structures for electrical and electronic equipment - Tests for IEC 60917 and IEC 60297 series - Part 6: Security aspects for indoor cabinets, 03/12/2021
64/2479/FDIS, IEC 60364-5-54/AMD1 ED3: Amendment 1 - Low-voltage electrical installations - Part 5-54: Selection and erection of electrical equipment - Earthing arrangements and protective conductors, 02/26/2021
68/679/CD, IEC 60404-12 ED2: Magnetic materials - Part 12: Methods of test for the assessment of thermal endurance of surface insulation coatings on electrical steel strip and sheet, 05/21/2021
69/749/DPAS, IEC PAS 62840-3 ED1: Electric vehicle battery swap system - Part 3: Particular safety and interoperability requirements for battery swap systems operating with removable RESS/battery systems, 03/26/2021

82/1860/NP, PNW TS 82-1860 ED1: Fire test for concentrator PV modules, 03/26/2021

85/748/CDV, IEC 60688 ED4: Electrical measuring transducers for converting AC and DC electrical quantities to analogue or digital signals, 04/23/2021

85/755/FDIS, IEC 61557-12/AMD1 ED2: Electrical safety in low voltage distribution systems up to 1 000 V AC and 1 500 V DC - Equipment for testing, measuring or monitoring of protective measures - Part 12: Power metering and monitoring devices (PMD), 03/12/2021

86C/1709(F)/FDIS, IEC 62148-15 ED3: Fibre optic active components and devices - Package and interface standards - Part 15: Discrete vertical cavity surface emitting laser packages, 02/19/2021


91/1701(F)/FDIS, IEC 60068-2-20 ED6: Environmental testing - Part 2 -20: Tests - Test Ta and Tb: Test methods for solderability and resistance to soldering heat of devices with leads, 02/19/2021


91/1707/NP, PNW 91-1707 ED1: Endurance test methods for die attach materials - Part 5: Temperature cycling test methods and reliability performance index for die attach materials (system soldering interconnection) applied to module type power electronic devices, 04/23/2021

91/1709/NP, PNW 91-1709 ED1: Endurance test methods for die attach materials - Part 3: Power cycling test method and reliability performance index for die attach materials applied to discrete type power electronic devices, 02/26/2021

100/3546/CDV, IEC 63296-1 ED1: Portable multimedia equipment - Determination of battery duration - Part 1: Powered loudspeaker equipment (TA 19), 04/23/2021

110/1291/NP, PNW 110-1291 ED1: Durability test methods for electronic displays - Part 2-21: Environmental tests- Test methods for heat and humidity, 03/26/2021

111/615/CD, IEC 63333 ED1: General method for assessing the proportion of reused components in products, 04/23/2021

116/490/CDV, IEC 62841-3-5 ED1: Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 3-5: Particular requirements for transportable band saws, 04/23/2021

116/494/NP, PNW 116-494 ED1: Lithium-Ion Batteries and Charging Systems - Safety, 04/23/2021

124/136/FDIS, IEC 63203-201-3 ED1: Wearable electronic devices and technologies - Part 201-3: Electronic textile - Determination of electrical resistance of conductive textiles under simulated microclimate, 03/12/2021

CIS/B/754/CD, CISPR 11/Frag4 ED7: Fragment 4: Requirements for measurements of robots, 04/23/2021

CIS/B/758/CD, CISPR 11/Frag5 ED7: Fragment 5: Requirements for wired network ports, 04/23/2021


JTC1-SC41/196A/NP, PNW JTC1-SC41-196 ED1: Internet of Things (IoT) - Data format, value and coding, 04/23/2021

JTC1-SC41/207/CD, ISO/IEC 30169 ED1: Internet of things (IoT) - IoT applications for electronic label system (ELS), 03/26/2021
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. All paper copies are available from Standards resellers (http://webstore.ansi.org/faq.aspx#resellers).

ISO Standards

ADDITIVE MANUFACTURING (TC 261)
ISO/ASTM 52950:2021, Additive manufacturing - General principles - Overview of data processing, $68.00

AIRCRAFT AND SPACE VEHICLES (TC 20)
ISO 11227/Amd1:2021, Space systems - Test procedure to evaluate spacecraft material ejecta upon hypervelocity impact - Amendment 1: Oblique impacts and Annex C update, $19.00
ISO 7961:2021, Aerospace - Bolts - Test methods, $103.00

BIOTECHNOLOGY (TC 276)

CLEANING EQUIPMENT FOR AIR AND OTHER GASES (TC 142)
ISO 22031:2021, Sampling and test method for cleanable filter media taken from filters of systems in operation, $138.00

CONCRETE, REINFORCED CONCRETE AND PRE-STRESSED CONCRETE (TC 71)
ISO 22040:2021, Life cycle management of concrete structures, $68.00

DENTISTRY (TC 106)
ISO 15854:2021, Dentistry - Casting and baseplate waxes, $138.00

HEALTH INFORMATICS (TC 215)
ISO 18530:2021, Health informatics - Automatic identification and data capture marking and labelling - Subject of care and individual provider identification, $209.00

LEATHER (TC 120)
ISO 11410:2021, Leather - Guidelines for packaging of wet blue leather, $45.00

MECHANICAL VIBRATION AND SHOCK (TC 108)
ISO 5348:2021, Mechanical vibration and shock - Mechanical mounting of accelerometers, $138.00

PLASTICS (TC 61)
ISO 24076:2021, Plastics - Polypropylene (PP) - Determination of isotactic index by low-resolution nuclear magnetic resonance spectrometry, $68.00
ISO 11358-2:2021, Plastics - Thermogravimetry (TG) of polymers - Part 2: Determination of activation energy, $45.00
ISO 11358-3:2021, Plastics - Thermogravimetry (TG) of polymers - Part 3: Determination of the activation energy using the Ozawa-Friedman plot and analysis of the reaction kinetics, $103.00

REFRIGERATION (TC 86)

ROAD VEHICLES (TC 22)
ISO 21498-1:2021, Electrically propelled road vehicles - Electrical specifications and tests for voltage class B systems and components - Part 1: Voltage sub-classes and characteristics, $68.00

RUBBER AND RUBBER PRODUCTS (TC 45)
ISO 2928:2021, Rubber hoses and hose assemblies for liquefied petroleum gas (LPG) in the liquid or gaseous phase and natural gas up to 2,5 MPa (25 bar) - Specification, $68.00

SHIPS AND MARINE TECHNOLOGY (TC 8)
ISO 22013:2021, Marine environment sensor performance - Specifications, testing and reporting - General requirements, $185.00

TEXTILES (TC 38)
ISO 1973:2021, Textile fibres - Determination of linear density - Gravimetric method and vibroscope method, $68.00
ISO 16549:2021, Textiles - Unevenness of textile strands - Capacitance method, $68.00
ISO 9073-4:2021, Nonwovens - Test methods - Part 4: Determination of tear resistance by the trapezoid procedure, $45.00
**TRACTORS AND MACHINERY FOR AGRICULTURE AND FORESTRY (TC 23)**

ISO 22172-2:2021, Agricultural vehicles - Standardized access to repair and maintenance information (RMI) - Part 2: Vehicle on-board diagnostics, $103.00

**VALVES (TC 153)**

ISO 6002:2021, Industrial valves - Bolted bonnet steel gate valves, $103.00

**WATER QUALITY (TC 147)**

ISO 20596-2:2021, Water quality - Determination of cyclic volatile methylsiloxanes in water - Part 2: Method using liquid-liquid extraction with gas chromatography-mass spectrometry (GC-MS), $103.00

**WELDING AND ALLIED PROCESSES (TC 44)**

ISO 18595:2021, Resistance welding - Spot welding of aluminium and aluminium alloys - Weldability, welding and testing, $103.00

ISO 23598:2021, Mechanical joining of sheet materials - Destructive testing of joints - Specimen dimensions and procedure for mechanized peel testing of single joints, $103.00

ISO 13919-2:2021, Electron and laser-beam welded joints - Requirements and recommendations on quality levels for imperfections - Part 2: Aluminium, magnesium and their alloys and pure copper, $103.00

**ISO Technical Reports**

**SAFETY OF MACHINERY (TC 199)**

ISO/TR 22100-1:2021, Safety of machinery - Relationship with ISO 12100 - Part 1: How ISO 12100 relates to type-B and type-C standards, $103.00

**TRANSPORT INFORMATION AND CONTROL SYSTEMS (TC 204)**

ISO/TR 21186-2:2021, Cooperative intelligent transport systems (C-ITS) - Guidelines on the usage of standards - Part 2: Hybrid communications, $162.00

**ISO Technical Specifications**

**ACOUSTICS (TC 43)**

ISO/TS 11819-3:2021, Acoustics - Measurement of the influence of road surfaces on traffic noise - Part 3: Reference tyres, $103.00

**STERILIZATION OF HEALTH CARE PRODUCTS (TC 198)**

ISO/TS 22421:2021, Sterilization of health care products - Common requirements for sterilizers for terminal sterilization of medical devices in health care facilities, $185.00

**ISO/IEC JTC 1, Information Technology**


ISO/IEC 29121:2021, Information technology - Digitally recorded media for information interchange and storage - Data migration method for optical disks for long-term data storage, $138.00

ISO/IEC 30190:2021, Information technology - Digitally recorded media for information interchange and storage - 120 mm Single Layer (25,0 Gbytes per disk) and Dual Layer (50,0 Gbytes per disk) BD Recordable disk, $232.00

ISO/IEC 30191:2021, Information technology - Digitally recorded media for information interchange and storage - 120 mm Triple Layer (100,0 Gbytes single sided disk and 200,0 Gbytes double sided disk) and Quadruple Layer (128,0 Gbytes single sided disk) BD Recordable disk, $232.00

ISO/IEC 23002-7:2021, Information technology - MPEG video technologies - Part 7: Versatile supplemental enhancement information messages for coded video bitstreams, $232.00

ISO/IEC TS 27570:2021, Privacy protection - Privacy guidelines for smart cities, $185.00

**IEC Standards**

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

IEC 60958-SER Ed. 1.0 en:2021, Digital audio interface - ALL PARTS, $1187.00

IEC 62919 Ed. 1.0 b:2017, Content management - Monitoring and management of personal digital content, $164.00

IEC 60958-5 Ed. 1.0 b:2021, Digital audio interface - Part 5: Consumer application enhancement, $117.00

**ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES (TC 31)**

IEC 60079-SER Ed. 1.0 en:2021, Explosive atmospheres - ALL PARTS, $9508.00

**FLAT PANEL DISPLAY DEVICES (TC 110)**

IEC 62906-5-3 Ed. 1.0 en:2021, Laser display devices - Part 5-3: Measuring methods of image quality for laser projection displays, $117.00
INSTRUMENT TRANSFORMERS (TC 38)

IEC 61869-13 Ed. 1.0 b:2021, Instrument transformers - Part 13: Stand-alone merging unit (SAMU), $352.00

NUCLEAR INSTRUMENTATION (TC 45)

IEC 60987 Ed. 3.0 b:2021, Nuclear power plants - Instrumentation and control important to safety - Hardware requirements, $317.00

IEC 62372 Ed. 2.0 en:2021, Nuclear instrumentation - Housed scintillators - Test methods of light output and intrinsic resolution, $117.00

POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)

IEC 61850-SER Ed. 1.0 en:2021, Communication networks and systems for power utility automation - ALL PARTS, $15414.00

SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)

IEC 62787 Ed. 1.0 b:2021, Concentrator photovoltaic (CPV) solar cells and cell on carrier (CoC) assemblies - Qualification, $235.00

SURFACE MOUNTING TECHNOLOGY (TC 91)

IEC 61760-3 Ed. 2.0 b:2021, Surface mounting technology - Part 3: Standard method for the specification of components for through-hole reflow (THR) soldering, $199.00

IEC 61189-5-502 Ed. 1.0 b:2021, Test methods for electrical materials, printed board and other interconnection structures and assemblies - Part 5-502: General test methods for materials and assemblies - Surface Insulation Resistance (SIR) testing of assemblies, $164.00

IEC 61189-5-601 Ed. 1.0 b:2021, Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 5-601: General test methods for materials and assemblies - Reflow soldering ability test for solder joint, and reflow heat resistance test for printed boards, $235.00

IEC Technical Reports

POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)

IEC/TR 61850-90-13 Ed. 1.0 en:2021, Communication networks and systems for power utility automation - Part 90-13: Deterministic networking technologies, $317.00

IEC Technical Specifications

ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES (TC 31)

IEC/TS 60079-47 Ed. 1.0 en:2021, Explosive atmospheres - Part 47: Equipment protection by 2-wire intrinsically safe ethernet concept (2-WISE), $82.00
Call for U.S. TAG Administrator

ISO/TC 118/SC 3 – Pneumatic tools and machines

ANSI has been informed that the Compressed Air & Gas Institute (CAGI), the ANSI-accredited U.S. TAG Administrator for ISO/TC 118 - Compressors and pneumatic tools, machines and equipment, wishes to relinquish their role as U.S. TAG Administrator of ISO/TC 118/SC 3 – Pneumatic tools and machines. (CAGI will retain the U.S. TAG Administrator role for ISO/TC 118.)

ISO/TC 118/SC 3 operates under the following scope:

Standardization in the field of pneumatic tools and machines.
Exception: Pneumatic tool shanks and tool fitting dimensions as they fall within the scope of ISO/TC 29.
Note: Definitions of hydraulic tools and machines are included.

Organizations interested in serving as the U.S. TAG Administrator or participating on a U.S. TAG should contact ANSI’s ISO Team (isot@ansi.org).
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), with a submission of comments to Steve Cornish (scornish@ansi.org) by close of business on Friday, February 26, 2021.
Call for Members (USNC)

International Electrotechnical Committee

Strategic Group (SG) 12: Digital Transformation and Systems Approach

U.S. Representative/VTAG Convenor Needed

Following the recommendations made by ahG 86 Future of Digital Transformation including system approaches in its final report, SMB approved to rename SG 12 as Digital Transformation and Systems Approach and revise its scope. For more detailed information on the new SG 12, please see attached.

Individuals interested in serving as a US Representative on SG 12, as well as the Convenor of the corresponding Virtual Technical Advisory Group (VTAG), are invited to contact Ade Gladstein at agladstein@ansi.org as soon as possible.

Please see the revised scope for SG 12 below.

Scope:

- Define the aspects of Digital Transformation that are relevant to the IEC and its standardization activities.
- Develop a Digital Transformation methodology for international standardization.
- Act as Digital Transformation and Systems Approach competence centres within the IEC and provide associated expertise and advisory services to all IEC Committees.
- Identify emerging trends, technologies and practices needed for the development, delivery and use of IEC’s work.
- Provide a platform for relevant discussion and collaboration with internal and external participation.
- Coordinate IEC’s activities with those of external entities (e.g. ISO, ITU).
ANSI Accredited U.S TAG to ISO
U.S. TAG to ISO TC 299, Robotics

ANSI-Accredited Standards Committee: U.S. TAG to ISO TC 299, Robotics

Meeting Format & Location: Remote via GoToMeeting

Purpose: Discuss topics for the upcoming meetings of the ISO TC 299 Plenary and its associated Working Groups (WGs); Study Group 1 results; Service Robot topics; Medical Robot topics; Industrial Robot topics. Set priorities and meeting schedule for rest of 2021.

Day/Date/Time: The meeting will be held in several sessions as follows:
- Wednesday, 03/10/21, from 10 AM – 6 PM ET (7 AM – 3 PM PT), with 2 breaks
- Thursday, 03/11/21, from 10 AM – 12:30 PM ET (7 – 9:30 AM PT)

The meeting listed above is sponsored by: Robotic Industries Association (RIA), a division of the Association for Advancing Automation (A3)

For More Information: Contact Carole Franklin, cfranklin@robotics.org
Registration of Organization Names in the United States

The Procedures for Registration of Organization Names in the United States of America (document ISSB 989) require that alphanumeric organization names be subject to a 90-day Public Review period prior to registration. For further information, please contact the Registration Coordinator at (212) 642-4975.

When organization names are submitted to ANSI for registration, they will be listed here alphanumerically. Alphanumeric names appearing for the first time are printed in bold type. Names with confidential contact information, as requested by the organization, list only public review dates.

Public Review

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

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 or notifyus@nist.gov.
Introduction For Reviewers

Proposed revisions to MALB and MAMF

Proposed revisions herein apply to harmonization work published for public review from September 25th to November 9th, 2020 for:

— AARST MAMF-2017, *Protocol for Conducting Measurements of Radon and Radon Decay Products in Multifamily Buildings*, and
— AARST MALB-2024, *Protocol for Conducting Measurements of Radon and Radon Decay Products In Schools and Large Buildings*

Work on harmonization of text between these two standards resulted in significant improvements and similar scope, due to so many mix-use buildings.

The holistic review of both standards resulted in many technical improvements and conversion to sentence styles that aid assessments for compliance with the standard. The previously publicly reviewed portion of work that these revisions apply to can be accessed at: https://standards.aarst.org/public-review
5.0 TESTING PROCEDURES AND OPTIONS

5.1 Test Deployment Periods

5.2 Evaluation of Occupied Versus Unoccupied Concentrations

5.3 The Time-Sensitive Testing Option

Rationale for change in Section 5.4.
This amendment addresses concerns raised both for repeating long-term follow-up testing for excessive durations while leaving occupants at risk and concerns relate to questionable validity of comparing tests conducted more than one year apart.

5.4 The Extended Testing Option

Note—This protocol builds upon those developed by EPA, relative to EPA’s “A Citizen’s Guide to Radon.”

<table>
<thead>
<tr>
<th>Table 5.4</th>
<th>Extended Testing Option—Required Procedure and Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td><strong>Initial Test</strong> Testing at each location is conducted using a single short-term device.</td>
</tr>
<tr>
<td></td>
<td>Evaluations of occupied versus unoccupied radon concentrations are additionally recommended for non-residential locations.</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td><strong>Follow-up Test Options</strong> Retest locations that meet or exceed the action level, e.g., 4 pCi/L. Follow-up testing requirements allow the following options: 1, 2</td>
</tr>
<tr>
<td></td>
<td>a) A second test with a short-term device is conducted. Where a first test is twice the action level or greater, this confirmation test should be conducted without delay; or</td>
</tr>
<tr>
<td></td>
<td>b) Where a first test is less than twice the action level, testing can be conducted with a long-term test device for an extended period if the situation allows a closer evaluation of annual average to radon concentrations; or</td>
</tr>
<tr>
<td></td>
<td>c) Evaluation of occupied versus unoccupied radon concentrations for non-residential locations.</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td><strong>Decisions to Fix the Building</strong></td>
</tr>
<tr>
<td></td>
<td>Mitigation decisions are to be based on the average of the two test results from short-term devices or the results from long-term testing 3, 4</td>
</tr>
<tr>
<td></td>
<td>Fix the building</td>
</tr>
<tr>
<td></td>
<td>if test results meet or exceed the action level, e.g., 4 pCi/L.</td>
</tr>
<tr>
<td></td>
<td>Consider fixing the building if results are greater than half the action level, e.g., between 2 and 4 pCi/L.</td>
</tr>
</tbody>
</table>

1. Where follow-up testing is not completed within 12 months after completing Step 1, the testing procedure shall be restarted with Step 1, in accordance with either Section 5.3 or this Section 5.4.

2. Note—While decisions to mitigate at any time are not prohibited, the second test aids confidence that decisions are not being made based on a faulty test device or unexpected conditions.

3. Note—Section 7.2 provides requirements for when the test result from two short-term test devices disagree in terms of making a mitigation decision.

4. Where evaluations of occupied versus unoccupied concentrations have been conducted in accordance with Section 5.2, report recommendations shall account for radon exposures indicated by the evaluation.
Rationale for changes in Section 5.6 and 5.7 (as editorially numbered below).
5.6—It was not intended to inadvertently cause two complete rounds of testing (two seasons) for newly constructed buildings. 5.7—Observance that a different set of less complicated post-mitigation test procedures in Section 7 removes confusion for people who might interpret, by virtue of section title, that all test procedures were covered in Section 5.

5.5 Testing A Single Room or Dwelling
Note—Sections 6.1.3 adds additional required conditions when testing only individual rooms or dwellings.

5.6 New Construction
For buildings constructed with radon-resistant features, initial testing shall be conducted normally, such as required in accordance with either Section 5.3 Time-Sensitive Testing Option or Section 5.4 Extended Testing Option.
However, radon-resistant features that do not include a fan shall be regarded as mitigation efforts that require seasonal verification of effectiveness, in accordance with clearance testing requirements in Section 7.3.2.b.

5.7 Post-Mitigation Testing Protocols
Testing after mitigation efforts shall be conducted in accordance with Section 7.3 where effectiveness is judged based on one test event with one or more test devices at each location to be tested.

Rationale for changes in Section 7.3.
Obscured clarity: Post-mitigation seasonal verifications were intended to be initial steps taken for operation, maintenance and monitoring (OM&M) procedures rather than a reason to interrupt lending approvals. Post-mitigation seasonal testing is only one part of a complete OM&M plan. In absence of other OM&M plan requirements, this section was determined to be removed and applied to a different standard that fully addresses OM&M.

7.3 Post-Mitigation Testing Protocol
7.3.1 General procedures—Post-mitigation testing
7.3.2 Clearance Testing
Clearance testing to verify all portions of a building are below the action level shall comply with all requirements in a), b) and c) and b) of this Section 7.3.2.

b) Seasonal verification
One portion OM&M is to reduce radon concentrations shall not be reported as complete until retests provide evidence of effectiveness that accounts for seasonal influences. Prior to, or within the first year of occupancy or ownership of property management, OM&M requires the following verifications of seasonal effectiveness:

1. A post-mitigation clearance test conducted under conditions that are representative of the predominant normal occupied building operating condition for the test location, in accordance with requirements in Section 2.7.2, shall have occurred or be conducted;

2. Where mitigation methods are based on passive efforts or mechanical dilution or pressurization of indoor air, two post-mitigation clearance tests are required to include:
a. One clearance conducted under conditions that are representative of the predominant normal occupied building operating condition, such as heating season conditions,
b. Another clearance test conducted under cooling season conditions, or the alternate seasonal condition of longest annual duration; and

3. Where decisions to mitigate relied on an evaluation of occupied versus unoccupied concentrations, as is recommended in Section 5.2, post-mitigation clearance testing shall include such an evaluation that meets requirements in Normative Appendix B.

**Rationale for changes in Section 8.**

Even though specific requirements for post-mitigation seasonal verification were determined to be removed, the related report guidance is still needed. As such, minor adjustments to sentences were needed to accommodate the proposed removal of seasonal verification requirements in Section 7.3.2.

**8.0 TEST REPORTS**

8.1 Conventions

8.2 Summary Reports

8.2.6 Elevated Radon Concentrations

Guidance in summary reports and otherwise provided where test results meet or exceed the action level shall comply with all applicable requirements in a), b), c), d) and f) of this Section 8.2.6.

c) Seasonal Verification

Recommendations shall convey that efforts to reduce radon concentrations are not complete until retests provide evidence of effectiveness that accounts for seasonal influences.

It shall be recommended to conduct additional clearance testing within the first year after occupancy, or ownership of property management:

1. Where post-mitigation clearance testing has not been conducted under the predominant normal occupied building operating conditions, for the building or unique sector, in accordance with Section 7.3.2, and

2. Where mitigation methods are based on passive methods or mechanical dilution or pressurization of indoor air and clearance testing has not been conducted during two different seasons, in accordance with Section 7.3.2.
d) Determining remedial solutions for a system not conforming with this Standard or inadequate for the stated purpose.

Four viewing categories define the required contrast ratios relative to stated purpose or application. A viewer is defined as a person with normal/corrected vision, or normal visual acuity\(^2\). Visual acuity is the capacity of the eye to see fine detail measured by determining the finest detail that can be detected. The four viewing requirement categories are:

1. **Passive Viewing**
   The viewer can recognize the displayed images and separate the text or main image from the background under typical lighting for the viewing environment. This category is for viewing non-critical content and the general intent can be understood.

2. **Basic Decision Making**
   The viewer can make basic decisions from the displayed image. The decisions are not dependent on critical details within the image or text. This category is based on comprehending the content and is dependent on the viewer’s ability to see and resolve the content’s elements. The viewer is actively engaged with the content (e.g., information displays, presentations containing detailed images, classrooms, boardrooms, multi-purpose rooms, product illustrations).

3. **Analytical Decision Making**
   The viewer can make decisions by analyzing critical details within the displayed image. The viewer is analytical and fully engaged with these details of the content (e.g., architectural/engineering drawings, image examination, forensic evidence, photographic image inspection).

4. **Full Motion Video**
   The viewer can discern key elements present in the full motion video, including detail provided by the content creator, necessary to support their intent (e.g., business screening room, business presentation content creation).

### 1.4. Exclusions

This Standard is limited to image contrast ratio and its relative measurements.

This Standard does not:

a) Include related factors such as display luminance, image size, or display resolution.

b) Prescribe actual white or black luminance levels of an image since those levels should be determined relative to the ambient light level of the viewing environment. Image luminance levels should be addressed as part of the system design process.

c) Apply to specialized systems that have their own standards such as medical imaging, broadcast, military, and commercial movie theatres. In these and other specialized cases, contrast ratio criteria and measurement procedures will deviate from the requirements and guidelines in this document.

d) Address contrast ratio required for digital cinema or home theater.

e) Apply to installations where there are large variations of uncontrollable ambient light because the environment plays a role in the achievable contrast ratio of the system and the viewing category requirements could not be met consistently.

Per 3/26/20 and 12/10/20 discussions, removed to avoid misconception that standard excludes all installations in rooms with external windows that do no have full blackout blinds – which would apply to a large number of installations.

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### ANSI/IES RP-7: Industrial Facilities

**Table A-1**  
**Basic Industrial Areas/Tasks**

#### Recommended Maintained Illuminance Targets

<table>
<thead>
<tr>
<th>Application Task/Area</th>
<th>Horizontal ($E_H$)</th>
<th>Vertical ($E_V$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target $E_H$ @ Height AFF</strong></td>
<td>Max $E_H$</td>
<td><strong>Uniformity Ratio</strong></td>
</tr>
<tr>
<td><strong>Target $E_V$ @ Height AFF</strong></td>
<td>Max $E_V$</td>
<td><strong>Uniformity Ratio</strong></td>
</tr>
</tbody>
</table>

#### ANSI/IES RP-7: Industrial Facilities

<table>
<thead>
<tr>
<th>Task</th>
<th>Area</th>
<th>High</th>
<th>Med</th>
<th>Low</th>
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<tbody>
<tr>
<td>TS</td>
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</table>

#### INDUSTRIAL - BASIC INDUSTRIAL AREAS/TASKS

**Assembly**

- Difficult: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min
- Exacting: 3,000 @ TS (300 @ TS) Avg 3:1 Max Min
- Simple: 300 @ TS (30 @ TS) Avg 3:1 Max Min

**Building Lighting**

- Conveyance aisles: 100 @ TS (10 @ TS) Avg 3:1 Max Min
- General Shop areas: 150 @ TS (15 @ TS) Avg 3:1 Max Min
- Laboratories: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min
- Benches: 150 @ TS (15 @ TS) Avg 3:1 Max Min
- General: 500 @ TS (50 @ TS) Avg 3:1 Max Min
- Parts storage: 500 @ TS (50 @ TS) Avg 3:1 Max Min

**Component Manufacturing**

- Fine: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min
- Large: 300 @ TS (30 @ TS) Avg 3:1 Max Min
- Medium: 500 @ TS (50 @ TS) Avg 3:1 Max Min

**Inspection**

- Difficult: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min
- Exacting: 3,000 @ TS (300 @ TS) Avg 3:1 Max Min
- Simple: 300 @ TS (30 @ TS) Avg 3:1 Max Min

**Machining**

- Fine bench or machine work: 3,000 @ TS (300 @ TS) Avg 3:1 Max Min
- Fine grinding: 3,000 @ TS (300 @ TS) Avg 3:1 Max Min
- Medium bench or machine work: 500 @ TS (50 @ TS) Avg 3:1 Max Min
- Rough bench or machine work: 300 @ TS (30 @ TS) Avg 3:1 Max Min

**Maintenance**

- Maintenance: 500 @ TS (50 @ TS) Avg 3:1 Max Min

**Manual Crafting**

- Course: 300 @ TS (30 @ TS) Avg 3:1 Max Min
- Exacting: 3,000 @ TS (300 @ TS) Avg 3:1 Max Min
- Fine: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min
- Medium: 500 @ TS (50 @ TS) Avg 3:1 Max Min

**Materials Handling**

- Loading: 100 @ TS (10 @ TS) Avg 3:1 Max Min
- Picking stock, classifying: 100 @ TS (10 @ TS) Avg 3:1 Max Min
- Wrapping, packing, and labeling: 300 @ TS (30 @ TS) Avg 3:1 Max Min

**Motor and Equipment Handling**

- Motor and Equipment Handling: 300 @ TS (30 @ TS) Avg 3:1 Max Min

**Paper Box**

- Manufacturing: 750 @ TS (75 @ TS) Avg 3:1 Max Min

**Raw Material Processing**

- Course: 100 @ TS (10 @ TS) Avg 5:1 Max Min
- Medium: 300 @ TS (30 @ TS) Avg 3:1 Max Min
- Fine: 500 @ TS (50 @ TS) Avg 3:1 Max Min
- Very Fine: 1,000 @ TS (100 @ TS) Avg 3:1 Max Min

**Storage Yards**

- Active: 50 @ TS (5 @ TS) Avg 5:1 Max Min
- Inactive: 10 @ TS (1 @ TS) Avg 10:1 Max Min

**Testing**

- General: 300 @ TS (30 @ TS) Avg 3:1 Max Min
- Exacting tests: 1,500 @ TS (150 @ TS) Avg 3:1 Max Min
## Table A-1

### Basic Industrial Areas/Tasks

<table>
<thead>
<tr>
<th>APPLICATION TASK/AREA</th>
<th>Vertical ($E_v$)</th>
<th>Uniformity Ratio</th>
<th>Target $E_v$ @ Height AFF</th>
<th>Uniformity Ratio</th>
<th>Target $E_v$ @ Height AFF</th>
<th>Uniformity Ratio</th>
<th>Ratio Basis</th>
<th>Ratio Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Warehousing and Storage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active: bulky items; large labels</td>
<td>A</td>
<td>R 50 @ TS (5 @ TS) Avg 5:1 Avg:Min</td>
<td>H 20 @ TS (2 @ TS) Avg 5:1 Avg:Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active: small items; small labels</td>
<td>T</td>
<td>P 300 @ TS (30 @ TS) Avg 3:1 Avg:Min</td>
<td>N 150 @ TS (15 @ TS) Avg 3:1 Avg:Min</td>
<td>P 300 @ TS (30 @ TS) Avg 3:1 Max:Min</td>
<td>W 3,000 @ TS (300 @ TS) Avg 3:1 Max:Min</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>T</td>
<td>P 300 @ TS (30 @ TS) Avg 3:1 Max:Min</td>
<td>P 300 @ TS (30 @ TS) Avg 3:1 Max:Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precision manual arc-welding</td>
<td>T</td>
<td>W 3,000 @ TS (300 @ TS) Avg 3:1 Max:Min</td>
<td>W 3,000 @ TS (300 @ TS) Avg 3:1 Max:Min</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Cool Yards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outdoor, Protective</td>
<td>A</td>
<td>B 2 @ TS (0.2 @ TS) Avg 10:1 Max:Min</td>
<td>B 2 @ TS (0.2 @ TS) Avg 10:1 Max:Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loading/Unloading Platforms-Outdoor</td>
<td>A</td>
<td>O 200 @ TS (20 @ TS) Avg 5:1 Avg:Min</td>
<td>M 100 @ TS (10 @ TS) Avg 5:1 Avg:Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freight car interiors</td>
<td>T</td>
<td>M 100 @ TS (10 @ TS) Avg 5:1 Avg:Min</td>
<td>K 50 @ TS (6 @ TS) Avg 5:1 Avg:Min</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**APPLYING EQUATION FOR A-F: 2.23**

<table>
<thead>
<tr>
<th>APPLICATION TASK/AREA NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Engraving, carving, painting, stitching, cutting, pressing, knitting, polishing, or woodworking</td>
</tr>
<tr>
<td>2. Inside truck and freight cars</td>
</tr>
<tr>
<td>3. Cleaning, cutting, crushing, Sorting, or grading</td>
</tr>
</tbody>
</table>
**Recommended Maintained Illuminance Targets**

**TS = Task Surface:** Recommended illuminances are at height of task surface above finished floor (AFF)

<table>
<thead>
<tr>
<th>APPLICATION TASK/AREA</th>
<th>Task Surface</th>
<th>Target ( E_h ) @ Height AFF</th>
<th>Uniformity Ratio</th>
<th>Target ( E_v ) @ Height AFF</th>
<th>Uniformity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Max</td>
<td>Avg</td>
<td>Min</td>
<td>Ratio</td>
</tr>
<tr>
<td>Railroad switching points</td>
<td>G 15 @ TS (1.5 @ TS)</td>
<td>Avg 10:1 Max:Min</td>
<td>G 15 @ TS (1.5 @ TS)</td>
<td>Avg 10:1 Max:Min</td>
<td></td>
</tr>
</tbody>
</table>
# ANSI/IES RP-7: Industrial Facilities

## Table A-10: Miscellaneous Industrial Applications and Recommended Maintained Illuminance Targets

<table>
<thead>
<tr>
<th>APPLICATION TASK/AREA</th>
<th>Horizontal (E_h) @ Height AFF</th>
<th>Uniformity Ratio</th>
<th>Vertical (E_v) @ Height AFF</th>
<th>Uniformity Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Max</td>
<td>Avg</td>
<td>Min</td>
<td>Ratio</td>
</tr>
<tr>
<td><strong>Excavation work</strong></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lux</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(F_c @ F_t)</td>
</tr>
<tr>
<td><strong>General construction</strong></td>
<td></td>
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<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lux</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(F_c @ F_t)</td>
</tr>
<tr>
<td><strong>Entrances</strong></td>
<td></td>
<td></td>
<td></td>
<td>C</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lux</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(F_c @ F_t)</td>
</tr>
</tbody>
</table>

**Building Construction - Outdoor**

- **Excavation work**
  - Task or Area: High
  - Recommended illuminances are at height of task surface above finished floor (AFF)
  - Target \(E_h\) @ Height AFF:
    - Max: Min Ratio = 10:1
    - Ratio Basis = Avg
  - Target \(E_v\) @ Height AFF:
    - Max: Min Ratio = 10:1
    - Ratio Basis = Avg

- **General construction**
  - Task or Area: Medium
  - Target \(E_h\) @ Height AFF:
    - Avg Ratio = 5:1
    - Ratio Basis = Max:
  - Target \(E_v\) @ Height AFF:
    - Avg Ratio = 5:1
    - Ratio Basis = Max:

- **Entrances**
  - Task or Area: Low
  - Target \(E_h\) @ Height AFF:
    - Avg Ratio = 5:1
    - Ratio Basis = Min
  - Target \(E_v\) @ Height AFF:
    - Avg Ratio = 5:1
    - Ratio Basis = Min

**Note**

- Footnote 4, 5 may change numbers if moved to another table.

---

7 Normally locked and infrequently used
NSF/ANSI Standard
For Wastewater Technology –

Disinfection Mechanics

6 Chlorine disinfection devices

6.5.3.1.1 Variable feed rate devices

The manufacturer shall specify the maximum wastewater flow capacity and flow rate, if required, for both the minimum and maximum chlorine feed rates. Flow shall be introduced continuously or in evenly spaced doses not exceeding 38 L (10 gal) and the maximum flow rate, if required, through the treatment system feeding the test chlorine disinfection device. The flow rate of influent to the disinfection device shall not exceed the manufacturer rated flow rate of the disinfection device during dosing. Variable feed rate chlorine disinfection devices shall be tested over 3 dosing periods described in the table below.

6.5.3.1.2 Fixed feed rate devices

The manufacturer shall specify the maximum and minimum wastewater flow capacity and flow rate, if required, for the chlorine disinfection device. Flow shall be introduced continuously or in evenly spaced doses not exceeding 38 L (10 gal) and the maximum flow rate through the treatment system feeding the test chlorine disinfection device. The flow rate of influent to the disinfection device shall not exceed the manufacturer rated flow rate of the disinfection device during dosing. Fixed feed chlorine disinfection devices shall be tested over 3 dosing periods described in the table below.

BSR/UL 61010-2-011, Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 011: Particular Requirements for Refrigerating Equipment

1. This proposal provides revisions to the proposal document dated October 30, 2020 per responses to comments received.

PROPOSAL

8 Resistance to mechanical stresses

This clause of Part 1 is applicable.

8DV D1 Addition of Clauses 8.1DV.1- 8.DV.2 Resistance to mechanical stresses

This clause of Part 1 is applicable, except as follows:

8DV.1 Refrigerant tubing on a refrigerator employing a flammable refrigerant shall be protected or enclosed to avoid mechanical damage and damage that could occur during moving of the product.

8DV.1.1 Refrigerant tubing located within the confines of the cabinet and tubing that does not protrude from the compressor compartment are considered to be protected from mechanical damage.

8DV.1.2 A static condenser coil mounted on the outside of a refrigerator is considered to be protected against mechanical damage if it complies with all of the following:

- The return bends of the condenser are covered such that they cannot be grasped or handled during moving of the product. The return bends are considered to be adequately covered if they cannot be grasped with the jointed test finger (see Figure B.2) applied with a force of 20 N.
- The other edges of the condenser are covered or secured to prevent damage during moving of the product. They are considered adequately secured if they meet the pull force requirements of clause 8DV.3 without deformation of the tubing or loosening of the condenser from the refrigerator.
- All other tubing in the condenser is adequately protected by the fill wire. The tubing is considered adequately protected if any single tube cannot be grasped with the jointed test finger (see Figure B.2) applied with a force of 20 N.

8DV.1.3 A static evaporator coil mounted as shelving on the inside of a storage compartment is considered to be protected against mechanical damage if it complies with all of the following:

- The shelf shall comply with clauses 8DV.3 and 7.5.3 with no permanent deformation or damage resulting in a refrigerant leak, kinked refrigerant tubing, or loosening of the tubing from the refrigerator.
- The tubing shall comply with the scratch test of Clause 11.7.104.4.

8DV.2 All joints in a refrigeration system containing a FLAMMABLE REFRIGERANT shall be brazed or welded. Joining methods other than brazing...
or welding that have been evaluated with respect to corrosion resistance, mechanical stress, leak rates, and similar methods shall be considered to comply.

8DV.3 A force is applied without jerks for 10 s in the most unfavourable direction to parts likely to be weak. The force is as follows:

- if the shape of the part is such that the fingertips cannot easily slip off, 50 N;
- if the projection of the part that is gripped is less than 10 mm in the direction of removal, 30 N.

The pull force is applied by a suitable means, such as a suction cup, so that the test results are not affected. While the force is being applied, the test finger of Figure B.2 is inserted in any aperture or joint with a force of 10 N. The finger is then slid sideways with a force of 10 N but is not twisted or used as a lever.

11.7.102.2 Pressure test

The pressure of the component or assembly (equipment under test (EUT)) is raised, by air or non-hazardous gas or via a hydrostatic pressure test, gradually to the specified test value and is held at that value for 1 min. If the continuous CONTROLLED TEMPERATURE for the EUT is less than or equal to 125 °C for copper or aluminium, or 200 °C for steel, the test temperature of the EUT during this test shall be at least 20 °C. If the continuous CONTROLLED TEMPERATURE for the EUT exceeds 125 °C for copper or aluminium, or 200 °C for steel, the test temperature of the EUT during this test shall be at least 150 °C for copper or aluminium and 260 °C for steel. For other materials or higher temperatures, the effects of temperature on the material fatigue characteristics shall be evaluated.

The EUT is considered to have complied with the requirements of this test if it withstands the pressure test without rupture. If the EUT does not comply, then an alternate method to demonstrate compliance is to subject the EUT to the fatigue test detailed below.

11.7.102DV.1 D1 Addition of the following at the end of the first paragraph:

The test value shall be determined as the higher of the following 3:

5 times the pressure under normal use (see 11.7.101 a)
3 times the pressure under transportation (see 11.7.101 d)
3 times the pressure under single fault condition (see 11.7.101 b and c)
UL 508A, Standard for Safety for Industrial Control Panels

1. Exception for Enclosure Air Conditioners – Clause 26.3.1

26 Enclosure Environmental Control Devices

26.1 General

26.1.1 A fan, air conditioner, or heater mounted to the industrial control panel for the purpose of conditioning air within the control panel shall comply with the requirements for general construction and power circuits in addition to the requirements in 26.2 – 26.6.

Exception: A fan that complies with 26.2.1, an air conditioner that complies with 26.3.1, and a heater that complies with 26.4.1 are able to be supplied from the isolated secondary of a control transformer or power supply and comply with the requirements for control circuits.

4. Ampacities of Control Circuit Conductors

Table 38.1
Ampacities of control circuit conductors

<table>
<thead>
<tr>
<th>Ampacity, amperes</th>
<th>Conductor size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AWG</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>20⁹¹</td>
</tr>
<tr>
<td>3</td>
<td>22⁹¹</td>
</tr>
<tr>
<td>2</td>
<td>24⁹¹</td>
</tr>
<tr>
<td>1</td>
<td>26⁹¹</td>
</tr>
<tr>
<td>0.8</td>
<td>28⁹ᵃ, ᵇ</td>
</tr>
<tr>
<td>0.5</td>
<td>30⁹ᵃ, ᵇ</td>
</tr>
</tbody>
</table>

ᵃ Where these conductors are contained in a jacketed multi-conductor cable assembly or for jumpers or special wiring applications.

ᵇ These sizes of conductors are only for connection of control circuits for electronic control programmable input/output or static control (having no moving parts) and control devices.
7. Clarifications of Locked-rotor Currents

30.2.2 A molded-case switch, a switch unit, a fused power circuit switch, a pullout switch, and an open or enclosed switch shall have:

a) For control of one or more non-motor loads:

1) An ampere rating not less than 100 percent of the rated full-load current of the load(s) for a non-fused switch; and

2) The full-load current of the loads shall not be more than 80 percent of the rating of the fuses for an enclosed, open, molded case, pullout switch or switch unit with an integral fuseholder;

b) For control of a single motor load:

1) A horsepower rating not less than the motor load rating; or

2) An ampere rating not less than 115 percent of the motor full-load current rating in accordance with Table 50.1 or the input current rating of a variable speed drive; or

c) For one or more motors or for one motor and any other load(s), an ampere rating or a horsepower rating with an equivalent full-load current:

1) Not less than 115 percent of the full load current ratings of all motors, in accordance with Table 50.1 or the input current rating of a variable speed drive plus the full-load currents of all other loads; and

2) The rated locked-rotor current of the switch shall not be less than the sum of the locked-rotor currents of all motors, plus the full-load currents of all other loads. For single-phase motors, the locked rotor current is 6 times the full load current rating as in Table 50.1. For three-phase motors, the locked rotor current is as in Table 50.3 for motor designs B, C and D, and 6 times the full load current rating as in Table 50.1 for other motor designs or motors without a motor design designation. For dc motors the locked rotor current is 10 times the full load current rating as in Table 50.2.

9. Enclosure Derating Table – Section 19

19.3 Openings provided in enclosures for mounting components shall be covered with components intended for such mounting. For an enclosure type specified in column 1 of Table 19.2. a) Openings provided for components, including ventilation openings, or observation windows, shall be closed with components that have been evaluated for one of the enclosure Types in the heading of row 1 Column 2 of Table 19.2, unless the assembled enclosure type is derated to a lower the enclosure type rating indicated in the central section of the table corresponding to the type rating of the empty enclosure from column 1 and the type rating of the component from Column 2 that results in the lowest rating.

Table 19.2

<table>
<thead>
<tr>
<th>Enclosure Type (Column 1)</th>
<th>1</th>
<th>2</th>
<th>3R</th>
<th>Wet Loc</th>
<th>RainTight</th>
<th>RainProof</th>
<th>WeatherProof</th>
<th>3RX</th>
<th>3</th>
<th>3S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2</td>
<td>2 or 1a</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<td>3Rb</td>
<td>3R</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

UL 508A
19.3 shall be marked as in 53.1 with an environmental rating:

- with Table 19.1 or components that do not comply with Table 19.2 as specified in column 2 of Table 19.3, provided with conduit fittings that do not comply
- and locking mechanism or require tool entry.
- Components with external operating mechanisms must be Type 3SX for use on 3S, otherwise rating becomes Type 3.
- Components marked Weatherproof, or Rainproof are allowed to be installed below all other live parts in enclosure.

<table>
<thead>
<tr>
<th>Enclosure Type (Column 1)</th>
<th>Component rating (Column 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3S</td>
<td>3RX 3X 4 4X 5 6 6P 12 12K 13</td>
</tr>
<tr>
<td>3SX</td>
<td>3SX 3X 4 4X 5 6 6P 12 12K 13</td>
</tr>
<tr>
<td>3X</td>
<td>3X 4 4X 5 6 6P 12 12K 13</td>
</tr>
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<tr>
<td>3S</td>
<td>3S 3S 3S 3S 1 3RX 3RX 1</td>
</tr>
<tr>
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<td>3SX 3SX 3S 3S 3S 3SX 3SX 3SX</td>
</tr>
<tr>
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<td>3X 3X 3X 5 4 5 4 3X 3X 1 1</td>
</tr>
<tr>
<td>4X</td>
<td>3RX 3RX 4 4X 5 4 4 4X 1 1</td>
</tr>
<tr>
<td>6P</td>
<td>3X 4X 5 4 6 6P 1 1</td>
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<tr>
<td>12</td>
<td>5 4 5 4 5 4 5 4 5 4 5 4 5 4</td>
</tr>
<tr>
<td>12K</td>
<td>1 1 5 4 5 4 5 4 5 4 5 4 5 4 5 4</td>
</tr>
<tr>
<td>13</td>
<td>1 1 5 4 5 4 5 4 5 4 5 4 5 4 5 4</td>
</tr>
</tbody>
</table>

- Components with external operating mechanisms must be Type 3S or 3SX for use on 3S, otherwise rating becomes Type 3.
- Components with external operating mechanisms must be Type 3SX for use on 3SX, otherwise rating becomes Type 3.
- Must add drain, and locking mechanism or require tool entry.
- Must add locking mechanism or require tool entry.

49.4 An enclosure as specified in column 1 of Table 19.3, provided with conduit fittings that do not comply with Table 19.1 or components that do not comply with Table 19.2 as specified in column 2 of Table 19.3 shall be marked as in 53.1 with an environmental rating:

a) As specified in column 3 of Table 19.3; or

b) As a Type 1 enclosure.
10. Equipment Covered by the Standard for Controllers for Use in Power Production, UL/ULC 6200

1.24 Control panels, control units, and other various electrical circuits employed within a control circuit device intended for support functions, maintain operation and limiting safety control features for use in a Stationary Engine Driven Assembly or similar power production equipment (generator) control applications are covered by the Standard for Controllers for Use in Power Production, UL/ULC 6200.

12. Field Wiring – Cable Lugs

28 Field Wiring

28.1 General

28.1.1 A terminal, such as a pressure wire connector or wire-binding screw, shall be provided for connection of each conductor intended to be installed in the industrial control panel in the field.

Exception: Bus bars complying with 29.2.2 may be used for connection of conductors. If the busbar is provided with a hole intended for mounting a pressure wire connector, cable lug or similar termination device, the control panel shall be provided with a marking in accordance with 54.13.

28.2.6 A busbar with a hole intended for mounting of a cable lug by bolt and nut shall be marked in accordance with 54.13.

54.13 Busbars shipped with holes for mounting of a cable lug by bolt are to be marked with the following or the equivalent: “Install in the openings only wire connectors complying with the requirements in the Standard for Wire Connectors, UL 486A-486B or the Standard for Equipment Wiring Terminals for Use with Aluminum and/or Copper Conductors, UL 486E, in compliance with the installation instructions, specifying the proper assembly procedures of these wire connectors.”

54.13 An industrial control panel with bus bars provided with a hole intended for mounting a pressure wire connector, cable lug or similar termination device in accordance with the Exception to 28.1.1, shall be provided with a marking stating which pressure wire connector, cable lug or terminal kit is acceptable for use with the busbar.

13. Low-Voltage Fuses - Part 10: Class L Fuses

66.7.1 In lieu of 32.1.2, a branch circuit fuse shall be designated Class RK1, RK5, J, L, CF, T or CC and shall comply with the Standard for Low-Voltage Fuses – Part 12: Class R Fuses, UL 248-12, the Standard for Low-Voltage Fuses – Part 8: Class J Fuses, UL 248-8, the Standard for Low-Voltage Fuses – Part 10: Class L Fuses, UL 248-10, the Outline of Investigation for Low-Voltage Fuses – Part 17: Class CF Fuses, UL 248-17, the Standard for Low-Voltage Fuses – Part 15: Class T Fuses, UL 248-15, the Standard for Low-Voltage Fuses – Part 4: Class CC Fuses, UL 248-4, the Outline of Investigation for Low-Voltage Fuses – Part 17: Class CF Fuses, UL 248-17 or the Standard for Low-Voltage Fuses – Part 10: Class L Fuses, UL 248-10. Class H, K, and G, fuses shall not be used.

14. Low-Voltage Limited Energy Circuits in Power Circuits

35.4.1.1 A low-voltage limited energy circuit shall comply with 43.1.2 and shall be supplied from a power transformer that complies with 35.1.1 or 35.1.2. The secondary winding shall be grounded so that the voltage to ground at each conductor supplying the low-voltage limited energy circuit is within the voltage limits of 43.1.2.
15. Spacings at Field Wiring Terminals at the Supply Side of Industrial Control Panels

10.2 Spacings between uninsulated live parts of adjacent components, between uninsulated live parts of components and grounded or accessible dead-metal parts, between uninsulated live parts of components and the enclosure, and at field wiring terminals, shall be maintained as shown in Table 10.1 and Table 10.2.

Exception: Spacings at field wiring terminals for at the supply connections to an side of industrial control panels, where the branch circuit protective device, protecting a branch circuit in the panel, is omitted and field provided by the installer in accordance with Section 60.1, shall be permitted to comply with Table 10 may be maintained as shown in Table 10.1.

16. Clarification for Self-protected Combination Motor Controllers or Manual Self-protected Combination Motor Controllers Used as Branch Circuit Protection for Motor Circuits Only

31.1.4 A self-protected combination motor controller or a manual self-protected combination motor controller shall comply with the Standard for Industrial Control Equipment, UL 508, and shall be provided with all accessory parts required by the product marking. Manual self-protected combination motor controllers shall be used with the motor controllers required by the product marking. A self-protected combination motor controller or a manual self-protected combination motor controller shall be used only as branch circuit protection for single individual motor circuits.
1. Recycled Thermoplastic Material Test Program – Flame Test Requirements

10.2.3 Results of tests for the three production batches are expected to meet the following requirements:

   a) The identification tests per UL 746A are to be comparable between batches.

   b) The same flammability rating is to be maintained for all tested production batches in the recycled plastic base color or if base color is not part of the evaluation, a commonly produced color that is part of the evaluation can be considered for complete series of UL 94 flammability and UL 746A identification tests, on three production batches.

   c) For additional colors beyond the recycled plastic base color, only one production batch is required for flammability testing in compliance with 7.3.4, 8.3.4 or 9.3.4 in UL 94, as applicable, and the rating of this one batch shall be the same as the rating of the recycled plastic base color that was evaluated for three production batches.

10.3.3 Results of tests for the five production batches are expected to meet the following requirements:

   a) The same flammability rating shall be maintained for all tested production batches in the recycled plastic base color or if base color is not part of the evaluation, a commonly produced color that is part of the evaluation can be considered for complete series of UL 94 flammability tests on five production batches.

   b) For additional colors beyond the recycled plastic base color, only one production batch is required for flammability testing in compliance with 7.3.4, 8.3.4 or 9.3.4 in UL 94, as applicable, and the rating of this one batch is to be the same as the rating of the recycled plastic base color that was evaluated for five production batches.

   c) A minimum impact strength value, as defined by the manufacturer or applicable end-product standard, is to be met by all tested production batches.

   d) The tensile strength values are to be ±15% from the mean of all the tested production batches.

   e) The heat deflection temperatures are to be ±10% the mean of all the tested production batches.
f) The dielectric strength values are to meet a minimum of 5kV/mm for all tested production batches.

g) The manufacturer can choose to test either the hot wire ignition (HWI) or the glow wire ignition temperature (GWIT) to evaluate the recycled plastic's response to ignition as a result of the application of a hot wire. The test results for either test in the five production batches are to meet the minimum values as defined by the manufacturer or by the applicable end-product standard.
BSR/UL 1023, Standard for Household Burglar-Alarm System Units

1. Clarification of short range RF requirements for household burglar alarm products to address frequency hoping and spread spectrum technologies

PROPOSAL

62 Reference Level Determination

62.3 Method 3

62.3.1 This test may be alternately conducted as noted in 62.3.2 - 62.3.6.

62.3.2 The installation document for the system shall include a description of the equipment and procedures to be used during the installation of the system to determine whether or not the actual signal strength received is above the minimum acceptable level and the actual ambient noise level is below the maximum acceptable level.

62.3.3 For the purpose of these requirements, the minimum signal strength specified by the manufacturer which is required for normal operating performance is designated as the reference signal level.

62.3.4 Unless indicated otherwise, the test setup is to employ a transmitter that is to be connected directly to the receiver via a shielded electrical connection, and all measurements shall be taken in a RF-shielded room. The signal shall be attenuated such that the level measured at the receiver (using the method described in 62.1) equals the reference signal level or minimum signal to noise level.

Exception: When the transmitter is not capable of being connected via a shielded electrical connection, the transmission path is to be free field in a RF-anechoic room.

62.3.5 The reference level determination test is to be repeated with the transmitter/transceiver’s batteries depleted to the trouble level as specified in 71.8. For the purpose of this requirement, a depleted battery is defined as a battery that is at the level (terminal voltage under load) that results in a trouble signal as required in 71.8. For test purposes, a depleted battery may be substituted by a circuit arrangement that does not affect the RF characteristic (+6 decibels as measured at the receiver), but does simulate the characteristics of a depleted battery as specified in 71.8 (b).

62.3.6 For test purposes, products employing spread spectrum technology, shall provide a means to establish the reference signal level by operating on a fixed frequency.

63 Interference Immunity

63.1 A receiver/transmitter combination at maximum range shall operate for its intended signaling performance in both a "Radio Quiet" and a "Radio Noisy" environment. See 63.2 - 63.4. Also see Error (Falsing) Rate, Section 68, and Throughput Rate, Section 69.
Exception: The “Radio Noisy” environment is not applicable to products utilizing spread spectrum technology.

63.2 For the purpose of this requirement, a "Radio Quiet" environment is one in which the interference signal level is a minimum of 20 decibels below the desired signal as determined by 62.1.4 within the frequency band of the signal, as measured at the receiver.

63.3 For the purpose of this requirement, a "Radio Noisy" environment is one in which the interference signal level exceeds 20 decibels below the desired signal as determined by 62.1.4, but is not more than a 10-decibel peak below the level of the source transmitter, as measured at the receiver. This condition is intended to test the receiver's ability to discriminate the desired signal from background noise under worst-case conditions.

63.4 A "Radio Noisy" environment is to be created by each of the sources specified in (a), (b), and (c), connected to modulate the amplitude of an RF oscillator at 100 percent. The signal strength is to be measured at the receiver with a spectrum analyzer or other acceptable instrument to determine that the signal intensity is within the parameters defined for a "Noisy" environment. The interference is to emanate from a 1/2-wave, dipole antenna capable of 360 degrees rotation in order to vary the polarization.

a) A white noise generator modulating an RF signal generator in which the frequency is varied ±5 percent about the signaling frequency.

b) Variable frequency audio oscillator varied between 20 hertz to 40 kilohertz, modulating an RF signal generator in which the frequency is varied ±5 percent about the carrier frequency, image frequency, if applicable, and intermediate frequency (IF), if applicable.

c) A square wave generator varied between 20 hertz to 40 kilohertz, modulating an RF signal generator in which the frequency is varied ±5 percent about the carrier frequency, image frequency, if applicable, and intermediate frequency (IF), if applicable.

63.5 Each of the interference signals specified in 63.4 shall not cause false alarming, however, it may cause a jamming or a loss of transmitter indication. Operation of the receiver/transmitter combination shall comply with the requirements for the falsing rate and throughput rate. See Error (Falsing) Rate, Section 68, and Throughput Rate, Section 69.
64 Frequency Selectivity

64.1 If a product utilizes multiple frequencies, a receiver shall not respond to any signal having a signal strength equivalent to the most powerful system transmitter located at a distance of 32.8 feet (10.0 m) from the receiver and having a frequency range shifted more than two working channel widths of the system, as measured between the manufacturer’s rated upper and lower frequency limits of the receiver/transmitter combination. For example, if the communication channel is 5 megahertz wide, any signal with a similar band width, even one with identical coding, the center frequency of which is shifted by more than 10 megahertz, shall be ignored by the receiver.

Exception: This requirement does not apply to products employing spread spectrum technologies.

67 Clash

67.1 The clash rate relative to normal status transmissions for each specific signal shall not exceed the following values:

   a) 0.0001, for fire signals.
   b) 0.0002, for medical or panic signals.
   c) 0.0005, for security signals.
   d) 0.005, for other signals, not including supervisory.

67.2 For the purpose of these requirements, clash is a loss of alarm signal information at the receiver for a period greater than 90 seconds as a result of two or more transmitters being concurrently activated when only one is in an alarm mode so that their transmitted signals interfere with each other.

Exception: The requirements of Section 67, Clash, are not applicable to products utilizing frequency hopping spread spectrum technology.

68 Error (Falsing) Rate

68.1 The transmitter/receiver shall comply with the following:

   a) The communication between each transmitter and receiver shall involve a unique message for each signal status.
   b) The communication message shall include information uniquely identifying each transmitter.
   c) The communication message components that identify the individual transmitter shall permit a minimum of 256 unique combinations. For larger systems, the number of combinations shall be increased so that the number of combinations available to the system is numerically equivalent to eight times the maximum number of transmitters that may be used within the system. For example, if 50 transmitters are used, the system’s capability shall provide at least 400 unique combinations.
68.2 For the purpose of this requirement, the error (falsing) rate is a measure of the ability of a receiver to discriminate between correct and incorrect transmission so that false or erroneous signals are not accepted by the receiver as valid status indications from the various transmitters in the system.

68.3 As a measure of compliance with 68.1, the error (falsing) rate of the receiver is to be determined by utilizing the test procedure described for reference level determination, see Section 62, Reference Level Determination 62.1.2—62.1.9, except for the following:

a) Batteries depleted to the trouble signal level are to be installed in the transmitter. See 62.1.9 for depleted battery simulation.

b) The transmitter is to be physically oriented for "worst-case" signaling as determined during reference level determination. See 62.1.8.

c) A counter is to be connected to the transmitter to record the number of transmissions. The arrangement is not to interfere with the transmitter output.

d) The transmitter is to be conditioned for continuous transmissions of:

1) 1,000,000 messages with one element incorrect, then

2) 1,000,000 messages with two elements incorrect, and finally

3) 1,000,000 messages with three elements incorrect. See 64.6 for alternate transmitter configurations.

e) A counter is to be connected to the receiver that will record the number of incorrect messages accepted as valid messages by the receiver.

f) The test is to be continued until a minimum of 1,000,000 messages are completed for each of the three conditions of incorrect transmission, except that if zero incorrect messages are accepted as valid after the first 100,000 messages, the test at that number of incorrect elements per message and any higher number of incorrect elements per message need not be conducted.

g) The test shall comply with the specifications in Table 68.1.

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1. This proposal provides revisions to the proposal document dated October 23, 2020 per comments received.

PROPOSAL

Table 21.3A
Test factors to increase pressure or joint test gap

<table>
<thead>
<tr>
<th>Temperature up to °C</th>
<th>Groups A &amp; B 27.5% H&lt;sub&gt;2&lt;/sub&gt; 7.5% C&lt;sub&gt;2&lt;/sub&gt;H&lt;sub&gt;2&lt;/sub&gt;</th>
<th>Group C 37% H&lt;sub&gt;2&lt;/sub&gt;</th>
<th>Group D 55% H&lt;sub&gt;2&lt;/sub&gt;</th>
<th>Minimum Number of Tests&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<td>70</td>
<td>1.11</td>
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<td>5</td>
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<td>5</td>
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<td>5</td>
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<tr>
<td>120</td>
<td>1.20</td>
<td>1.08</td>
<td>1.10</td>
<td>5</td>
</tr>
<tr>
<td>130</td>
<td>1.22</td>
<td>1.09</td>
<td>1.11</td>
<td>5</td>
</tr>
</tbody>
</table>

<sup>1</sup>The tests are carried out five times with each test mixture. For equipment intended for Group B, only the test with the hydrogen-air mixtures is required.
Table SB1.6
Test factors to increase pressure or joint test gap

<table>
<thead>
<tr>
<th>Temperature up to °C</th>
<th>Groups A &amp; B 27.5% H\textsubscript{2} 7.5% C\textsubscript{2}H\textsubscript{2}</th>
<th>Group C 37% H\textsubscript{2}</th>
<th>Group D 55% H\textsubscript{2}</th>
<th>Minimum Number of Tests\textsuperscript{1}</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>1.00</td>
<td>1.00</td>
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<td>70</td>
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<td>1.06</td>
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<tr>
<td>130</td>
<td>1.22</td>
<td>1.09</td>
<td>1.11</td>
<td>5</td>
</tr>
</tbody>
</table>

\textsuperscript{1}The tests are carried out five times with each test mixture. For equipment intended for Group B, only the test with the hydrogen-air mixtures is required.

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1. Topic 1 - Temperature ratings and diameters of vents

PROPOSAL

3.14 TEMPERATURE RATING – The maximum use temperature specified by the vent manufacturer for which the venting system is intended. The marked temperature rating is equal to the minimum vent input temperature selected from Table 19.1 less 70 °F (38.8 °C).
Table 19.1
Vent gas test temperatures and minimum vent input for vent sizes

<table>
<thead>
<tr>
<th>Nominal diameter (or equivalent cross-section) of vent, inches</th>
<th>Rated temperature, and minimum vent input</th>
<th>210°F (99°C)&lt;sup&gt;1,2,3&lt;/sup&gt;</th>
<th>300°F (149°C)&lt;sup&gt;1,2&lt;/sup&gt;</th>
<th>330°F (177°C)&lt;sup&gt;2&lt;/sup&gt;</th>
<th>400°F (204°C)&lt;sup&gt;1,2&lt;/sup&gt;</th>
<th>480°F (249°C)&lt;sub&gt;2&lt;/sub&gt;</th>
<th>550°F (288°C)&lt;sub&gt;1,2&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Btu/hr</td>
<td>kW</td>
<td>Btu/hr</td>
<td>kW</td>
<td>Btu/hr</td>
<td>kW</td>
<td>Btu/hr</td>
</tr>
<tr>
<td>2</td>
<td>1,900</td>
<td>0.57</td>
<td>2,200</td>
<td>0.64</td>
<td>2,320</td>
<td>0.68</td>
<td>2,513</td>
</tr>
<tr>
<td>3</td>
<td>4,277</td>
<td>1.25</td>
<td>4,950</td>
<td>1.45</td>
<td>5,190</td>
<td>1.52</td>
<td>5,655</td>
</tr>
<tr>
<td>4</td>
<td>7,605</td>
<td>2.23</td>
<td>8,800</td>
<td>2.58</td>
<td>9,320</td>
<td>2.73</td>
<td>10,056</td>
</tr>
<tr>
<td>5</td>
<td>11,882</td>
<td>3.48</td>
<td>13,750</td>
<td>4.03</td>
<td>14,340</td>
<td>4.20</td>
<td>15,712</td>
</tr>
<tr>
<td>6</td>
<td>17,103</td>
<td>5.01</td>
<td>19,790</td>
<td>5.80</td>
<td>21,170</td>
<td>6.20</td>
<td>22,616</td>
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<tr>
<td>The actual test temperature is the specified value plus 70°F (38.8°C) as noted in 19.3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For a vent with a diameter not specified in Table 19.1, the minimum vent-gas generator and minimum heat producing assembly input values for testing shall be determined by extrapolation of the values indicated in Table 19.1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The vent system manufacturer is allowed to specify a lower Rated Temperature than 99°C (210°F). In this case, the actual test temperature is the specified value plus 70°F (38.8°C), as noted in 19.3. The minimum vent gas generator and minimum heat producing assembly input values shall be determined by extrapolation of the values indicated in Table 19.1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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BSR/UL 2166, Standard for Halocarbon Clean Agent Extinguishing System Units

1. Nameplate Abrasion Test Update

PROPOSAL

56.3 The extinguishing system unit is to be laid on its side and a strip of medium emery cloth, 25.4 mm (1 inch) wide and long enough to cover half of the circumference of the extinguishing system unit plus 152.4 mm (6 inches), is to be draped over the nameplate. Weights of 0.45 kg (1 pound) each are to be attached vertically to the ends of the emery cloth. The weights are to be alternately unbalanced by quickly lifting one, then the other. One cycle shall be performed as a single unidirectional movement that occurs after the balance force on one weight is removed until balance is restored and movement stops. The tests using detergent and cleanser, with a cloth, are to be conducted similarly, with the following exceptions. The weights, 0.45 kg (1 pound) each, are to be attached to a belt, 50.8 mm (2 inches) wide, and the belt is to be placed over a cloth folded to form a pad, 50.8 mm (2 inches) wide by 203 mm (8 inches) long. The pad is to be wetted, squeezed by one hand to a damp condition, the powdered cleanser applied liberally, and any excess powder shaken off. The powdering procedure is to be repeated for each series of 25 strokes for the duration of the test.