

**Contents**

**American National Standards**

**Call for Comment on Standards Proposals** ..... 2  
**Call for Members (ANS Consensus Bodies)** ..... 13  
**Final Actions** ..... 16  
**Project Initiation Notification System (PINS)** ..... 18  
**ANS Maintained Under Continuous Maintenance** ..... 22  
**ANSI-Accredited Standards Developers Contact Information** ..... 23

**International Standards**

**ISO and IEC Draft Standards** ..... 24  
**ISO and IEC Newly Published Standards** ..... 27  
**Registration of Organization Names in the U.S.** ..... 30  
**Proposed Foreign Government Regulations** ..... 30  
**Information Concerning** ..... 31

# American National Standards

## Call for comment on proposals listed

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

**Ordering Instructions for "Call-for-Comment" Listings**

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

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

\* Standard for consumer products

## Comment Deadline: April 22, 2018

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

#### Addenda

BSR/ASHRAE Addendum 62.1f-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This revision clarifies that minimum primary airflow rates are established for both the Simplified and Alternative Procedures.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1g-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The current wording exempts "spaces that are intended primarily for other purposes". But this could be interpreted as requiring ventilation for spaces that are seldom occupied like exit stairways and passageways, which are seldom ventilated in standard practice. The key clause with respect to ventilation is whether spaces are "occupied occasionally and for short periods of time." This proposed change makes that clear and adds the example of emergency exit passageways to make that application specifically exempt.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1h-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum modifies Informative Appendix G (Application and Compliance) to add informative text that is contained in the current scope.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1j-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Section 4 (Outdoor Air Quality) refers to information from USEPA. This information changes so this proposed addendum updates the informative notes in this section.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1k-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The current standard contains requirements for filtration of ozone from outdoor air under certain conditions. This proposed addendum changes the requirement to be consistent with current EPA ambient air quality standards. Filtration will only be required in areas that are Serious, Severe 15, Severe 17, or extreme in the USA. Informative Appendix F was previously modified to remove the map. For other parts of the world, the criteria for determining compliance is spelled out in the standard.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1m-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The current standard contains requirements for filtration of particles from outdoor air under certain conditions. It also requires filtration upstream of wetted surfaces. This proposed addendum adds ISO ratings as an option to the existing MERV requirements and makes some modifications for consistency.

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

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

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

#### Addenda

BSR/ASHRAE Addendum 62.1n-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Standard 62.1 does not currently have any ventilation air requirements for animal facilities such as animal shelters, veterinary offices, and veterinary hospitals. The 1973 version of the standard provided values for these spaces but these values were removed in the 1989 version. Due to various contaminants sources present in these facilities, mainly animal waste decomposition that could result in ammonia generation, occupants working or visiting these facilities may be subjected to harmful concentration of contaminants without proper ventilation. This proposed addendum adds requirements for those spaces. Similarly, dental hygiene spaces are not covered in any ASHRAE Standard.

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

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

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

BSR/ASHRAE Addendum 62.1o-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The current standard contains requirements for redesignation that are based on informative text. This proposed addendum clarifies and refers to mandatory requirements for class 3 and 4 air.

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

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

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

BSR/ASHRAE Addendum 62.1q-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Section 5 and 7 changes are intended to better satisfy the objectives of the requirements already included in the standard and improve the language describing them. The changes differentiate the objectives fostering anticipation for the needs of system measurements with appropriate designs and those of airflow verification. Section 5.1.1 solicits design attention for duct layout conditions and anything that contributes to making field measurement difficult, prone to high error rates or sometimes impossible to perform. Modification of 7.2.2 addresses the operational requirements reflected elsewhere in the standard.

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

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

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

BSR/ASHRAE Addendum 62.1r-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum makes several changes in Section 5. For outdoor air intakes, the alternate methods of calculation are specified in Normative Appendix B (Separation of Exhaust Outlets and Outdoor Air Intakes) and the exception is eliminated. Requirements that were in the notes of Table 5.5.1 are relocated to the body of the standard. If condensation is to be managed (Exception 5.14.2), then a management plan must be developed. If "local practice" demonstrates condensation does not grow mold, it can be included in the management plan. Table 5.16.1 (Airstreams or Sources) is relocated to Section 6 where all other air class information resides.

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

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

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

BSR/ASHRAE Addendum 62.1t-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum adds a new informative appendix which is a companion to the changes to the Natural Ventilation Procedure. It provides information for application of the new procedure.

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

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

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

BSR/ASHRAE Addendum 62.1v-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

This proposed addendum adds requirements for alternate calculation methods (current Section c) but does not describe or prescribe a method.

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

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

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

BSR/ASHRAE Addendum 62.1w-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Standard 62.1-2016 scope states: Additional requirements for laboratory, industrial, health care, and other spaces may be dictated by workplace and other standards, as well as by the processes occurring within the space. However, the additional requirements for laboratories is not specified. 62.1 contains minimum requirements for laboratories but more complex laboratories should be designed with a different approach that is contained in ANSI Z9.5 Laboratory Ventilation. This proposed addendum recognizes this approach as valid in complying with ventilation and exhaust requirements of 62.1.

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

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

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

BSR/ASHRAE Addendum 62.1y-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

Since the original publication of Standard 62.1, ASHRAE published Standard 188-2015, Legionellosis: Risk Management for Building Water Systems. This proposed addendum requires advising the owner of the basic requirements of Standard 188.

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

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

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

### Addenda

BSR/ASHRAE Addendum 62.1z-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The default values per person in Table 6.2.2.1 (Minimum Ventilation Rates in Breathing Zone) do not contain any adjustments for system ventilation efficiency (Ev) and in many cases, are taken out of context. These values are deleted in proposed Addendum s. This proposed addendum provides an informative table with a rate per unit area that incorporates the Ev used in the simplified procedure. This results in a more accurate first-pass estimate of ventilation required at the outdoor air intake for many systems.

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

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

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

### Addenda

BSR/ASHRAE Addendum 62.2o-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum requires that new multifamily dwelling units have ventilation be balanced. This would address concerns that unbalanced ventilation performs poorly in multifamily units, but limits the requirement to new construction due to the challenges of retrofitting such systems into existing units.

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

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

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

### Addenda

BSR/ASHRAE Addendum 62.2p-201x, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (addenda to ANSI/ASHRAE Standard 62.2-2016)

This proposed addendum updates terminology regarding multifamily buildings for consistency. It adds an explicit definition of "horizontally-attached dwelling unit" to help make application of requirements clear.

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

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

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

### Addenda

BSR/ASHRAE/ASHE Addendum 170q-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

This proposed addendum makes changes to the scope of the standard. The following changes are being proposed: Add "resident" to differentiate from "patient" in residential health applications (Section 2.1). Clarify that Standard 170 addresses more than outside air quantities, to better differentiate from Standard 62.1 (Section 2.6). Clarify that Standard 170 does not establish "comprehensive thermal comfort design requirements". Those requirements are addressed in Standard 55 (Section 2.7). The text of the Standard will be coordinated with this revised scope in a future addendum, once the revised scope is approved.

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

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

## NSF (NSF International)

### Revision

BSR/NSF 2-201x (i26r2), Food Equipment (revision of ANSI/NSF 2-2016)

Equipment covered by this Standard includes, but is not limited to, bakery, cafeteria, kitchen, and pantry units and other food handling and processing equipment such as tables and components, counters, hoods, shelves, and sinks.

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

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

## UL (Underwriters Laboratories, Inc.)

### Revision

BSR/UL 444-201x, Standard for Safety for Communications Cables (revision of ANSI/UL 444-2017)

(1) Addition of jackets of expanded material; (2) Introduction of optional suffixes HF, LSHF and ST1.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Joshua Johnson, (919) 549-1053, [Joshua.Johnson@ul.com](mailto:Joshua.Johnson@ul.com)

## UL (Underwriters Laboratories, Inc.)

### Revision

BSR/UL 507-201x, Standard for Safety for Electric Fans (revision of ANSI/UL 507-2017d)

(1) Detachable cords; (2) Revision of the temperature test frequency for multiple frequency products; (3) Modification of the Dielectric Voltage Withstand Test; (4) Obtaining 2-volt dc offset potential; (5) Appliances for use in "Other Spaces Used for Environmental Air".

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Amy Walker, (847) 664-2023, [Amy.K.Walker@ul.com](mailto:Amy.K.Walker@ul.com)



**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 789-201x, Standard for Safety for Indicator Posts for Fire-Protection Service (revision of ANSI/UL 789-2003 (R2017))

(1) Revised requirements to above ground valve mounted indicator post.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Griff Edwards, 919 549-0956, [griff.edwards@ul.com](mailto:griff.edwards@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 61730-1-201x, Standard for Safety for Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction (revision of ANSI/UL 61730-1-2017)

This proposal for UL 61730-1 covers: (1) Proposed correction to the grounding symbol referenced in the US national difference to clause 5.2.2.2.1.

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

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Susan Malohn, (847) 664-1725, [Susan.P.Malohn@ul.com](mailto:Susan.P.Malohn@ul.com)

**Comment Deadline: May 7, 2018****APCO (Association of Public-Safety Communications Officials-International)****New Standard**

BSR/APCO 1.115.1-201x, Core Competencies, Operational Factors and Training for Next Generation Technologies in Public Safety Communications (new standard)

This standard addresses core competencies, operational factors, and training requirements for public safety telecommunicators specific to next generation technologies. Topics include: Processing, dispatch, and utilization of multimedia systems; Operational factors, including but not limited to: increased work load and multi-tasking, security requirements, impact of evolving voice and data networks; Conceptual understanding of NG systems, emergency services networks, and IP networks; Impacts of stress when handling graphic media; Utilization of non-traditional resources, i.e., third party call centers, telematics, etc.; Applications, both mobile and fixed.

Single copy price: Free

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

Order from: Crystal McDuffie, (386) 322-2500, [mcduffiec@apointl.org](mailto:mcduffiec@apointl.org); [standards@apointl.org](mailto:standards@apointl.org)

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

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

BSR/APCO 3.108.2-201x, Core Competencies and Minimum Training Standards for Public Safety Communications Instructor (revision and redesignation of ANSI/APCO 3.108.1-2014)

This is a revision of the standard that identifies the core competencies and minimum training requirements of the individual who is generally tasked with delivery of training within the communications center. The purpose of this standard is to provide a consistent foundation for the knowledge, skills and abilities needed to fulfill this critical function. This standard recognizes the need to supplement the training and core competencies identified within this standard with agency-specific information.

Single copy price: Free

Order from: [standards@apointl.org](mailto:standards@apointl.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: [https://workspace.apointl.org/higherlogic/ws/public/document?document\\_id=1393&wg\\_abbrev=training](https://workspace.apointl.org/higherlogic/ws/public/document?document_id=1393&wg_abbrev=training)

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

BSR/ASHRAE Addendum 62.1L-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The natural ventilation procedure was modified to require mechanical ventilation with certain exceptions. This proposed addendum provides specific requirements for the exception. It also recognizes that there are inherent health issues with outdoor air in many locations in the world and updates the requirements based on recent studies and airflow evaluations. The prescriptive path has been improved by removing the openable area requirement of 4% of net occupiable floor area. Two tables are proposed that provide minimum openable area based on program type, opening geometry, and spacing of vertical openings.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

BSR/ASHRAE Addendum 62.1s-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

The ventilation rate procedure in 62.1-2016 contains requirements in notes. This proposed addendum relocates requirements to the body of the standard. Another proposed change is to clarify that in the presence of unusual or strong sources the rates in the VRP must be supplemented by additional ventilation to be determined by the IAQ procedure. The default values per person in Table 6.2.2.1 do not contain any adjustments for Ev and in many cases are taken out of context. They are not used in the ventilation calculations. These values are deleted.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE Addendum 62.1u-201x, Ventilation for Acceptable Indoor Air Quality (addenda to ANSI/ASHRAE Standard 62.1-2016)

There is a need for a simplified list of requirements to determine compliance with basic requirements of the standard. This proposed addendum adds a new informative appendix which provides a compliance checklist and simple calculations to approximately check ventilation rate values. Other standards have more complex compliance documents.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE Addendum 135be-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

This addendum adds Lighting BIBBS and Device Profiles.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <http://www.ashrae.org/standards-research--technology/public-review-drafts>,

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE Addendum 135bq-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

This addenda removes a new lockout authentication status, fixes an absentee limit property of the access credential object type, removes the requirement for setting the authorization mode property of the access point from none to disable, and adds a mandate that when multiple events are generated within a single access transaction then the denied or granted event shall be generated last.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <http://www.ashrae.org/standards-research--technology/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE Addendum 135bs-201x, BACnet - A Data Communication Protocol for Building Automation and Control Networks (addenda to ANSI/ASHRAE Standard 135-2016)

This addendum adds Elevator and BIBBs and Device Profiles.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <http://www.ashrae.org/standards-research--technology/public-review-drafts>,

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE/ASHE Addendum 170o-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

Infection control and prevention identifies and segregates people who are especially vulnerable and affords them greater than normal protection. It also identifies and segregates threats so that they cannot pose a risk to people. This can be done through engineering controls, but it can also be accomplished through operational controls. The trained infection control and prevention professionals on staff at many hospitals are able to take community-levels of risk into account and this proposed addendum provides a voluntary risk-based approach to establish operational ventilation rates for spaces required in this Standard.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### Addenda

BSR/ASHRAE/ASHE Addendum 170p-201x, Ventilation of Health Care Facilities (addenda to ANSI/ASHRAE/ASHE Standard 170-2017)

This proposed addendum incorporates updates to Table 7.1. Generally, the changes are as follows: Delete the requirements for Residential Health, Care, and Support spaces, which are being relocated to a new Table 9.1 in Addendum n. Relocate and update filtration requirements. Part of that effort revised the Filter Bank No. 1 entries to be "MERV 8" from the prior entry of "MERV 7". Include requirements for unoccupied turndown of the spaces. Revise the space name terminology, table organization, and subheadings to better correlate with the 2014 FGI Guidelines for Design and Construction of Hospitals and Outpatient Facilities.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://www.ashrae.org/technical-resources/standards-and-guidelines/public-review-drafts>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

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

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

### ***New Standard***

BSR/ASHRAE Standard 221P-201x, Test Method to Field-Measure and Score the Cooling and Heating Performance of an Installed Unitary HVAC System (new standard)

The purpose of this standard is to prescribe a field evaluation and test method to measure and score the performance, in terms of delivered cooling or heating capacity, or cooling efficiency, of an installed unitary HVAC system. This standard applies to single-zone unitary split and packaged direct expansion (DX) cooling, air-source heat pump, and combustion furnace HVAC systems of any capacity, and with forced-air distribution systems.

Single copy price: \$35.00

Obtain an electronic copy from: Free download at <https://osr.ashrae.org/default.aspx>

Order from: [standards.section@ashrae.org](mailto:standards.section@ashrae.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Electronic comments submitted at <https://osr.ashrae.org/default.aspx>.

## **ASQ (ASC Z1) (American Society for Quality)**

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

BSR/ASQ/ISO 9004-201x, Quality management - Quality of an organization - Guidance to achieve sustained success (identical national adoption of ISO 9004:2018 and revision of ANSI/ISO/ASQ Q9004-2009)

Gives guidelines for enhancing an organization's ability to achieve sustained success. This guidance is consistent with the quality management principles given in ISO 9000:2015. This document provides a self-assessment tool to review the extent to which the organization has adopted the concepts in this document. This document is applicable to any organization, regardless of its size, type and activity.

Single copy price: \$200.00

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

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

## **ASQ (ASC Z1) (American Society for Quality)**

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

BSR/ASQ/ISO 10006-201x, Quality management - Guidelines for quality management in projects (identical national adoption of ISO 10006:2017 and revision of ANSI/ASQ/ISO 10006-201x)

Gives guidelines for the application of quality management in projects. It is applicable to organizations working on projects of varying complexity, small or large, of short or long duration, being an individual project to being part of a program or portfolio of projects, in different environments, and irrespective of the kind of product/service or process involved, with the intention of satisfying project interested parties by introducing quality management in projects. This can necessitate some tailoring of the guidance to suit a particular project. It is not a guide to project management itself. Guidance on quality in project management processes is presented in this document. Guidance on project management and related processes is covered in ISO 21500. This document addresses the concepts of both "quality management in projects" and "quality management systems in projects".

Single copy price: \$162.00

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

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

## **ASQ (ASC Z1) (American Society for Quality)**

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

BSR/ASQ/ISO 10007-201x, Quality management - Guidelines for configuration management (identical national adoption of ISO 10007:2017 and revision of ANSI/ASQ ISO 10007-201x)

Provides guidance on the use of configuration management within an organization. It is applicable to the support of products and services from concept to disposal.

Single copy price: \$68.00

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

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

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

### ***New Standard***

BSR/AWS D16.5M/D16.5-201x, Training Guide for Robotic Arc Welding Personnel (new standard)

Provides technical information necessary to train personnel in the safe and effective use of industrial welding robots and welding robot systems. The training guide includes a summary of the requisite education resources required for training and the emphasis will be placed on the training individuals in accordance with the principles of the AWS D16.4 Certified Robot Arc Welder (CRAW) program. The training guide is designed for use by all robot arc welding personnel and it is not intended to be used exclusively in support of the CRAW program.

Single copy price: \$48.00

Obtain an electronic copy from: [pportela@aws.org](mailto:pportela@aws.org)

Order from: Peter Portela, (800) 443-9353, [pportela@aws.org](mailto:pportela@aws.org)

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

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

### ***New Standard***

BSR/AWS D16.6M/D16.6--201x, Specification for Robot Arc Welding Training and Testing Cell (new standard)

This document specifies the recommended design, integration, installation, and use of robotic arc welding systems used to train and certify operators and technicians under the AWS Certified Robotic Arc Welding (CRAW) program. Robotic and automatic arc welding systems consist of an arc welding power source, arc welding torches and accessories, robot/manipulator, shielding gas delivery system, welding electrode feeding equipment, welding circuit, communication control wiring, and system grounding. An example of a typical Robotic Arc Welding Cell is shown in Figure 1. This document assumes that the robot training and testing will utilize GMAW or FCAW processes.

Single copy price: \$48.00

Obtain an electronic copy from: [pportela@aws.org](mailto:pportela@aws.org)

Order from: Peter Portela, (800) 443-9353, [pportela@aws.org](mailto:pportela@aws.org)

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

**AWWA (American Water Works Association)****New Standard**

BSR/AWWA C519-201x, High Performance Butterfly Valves, 3 In. (80 mm) Through 60 In. (1,500 mm) (new standard)

This standard establishes minimum requirements for high performance butterfly valves, 3 in. (80 mm) through 60 in. (1500 mm) in diameter, with various body and end types, for raw, potable and reclaimed water having a pH range from 6–12 and a temperature range from 33°–125°F (0.6°–51.5° C).

Single copy price: Free

Obtain an electronic copy from: ETSsupport@awwa.org

Order from: AWWA, Attn: Vicki David

Send comments (with copy to psa@ansi.org) to: AWWA, Attn: Paul J. Olson

**CTA (Consumer Technology Association)****Reaffirmation**

BSR/CTA 708-E-2013 (R201x), Digital Television (DTV) Closed Captioning (reaffirmation of ANSI/CTA 708-E-2013 (R201x))

This standard defines DTV Closed Captioning (DTVCC) and provides specifications and guidelines for caption service providers, distributors of television signals, decoder and encoder manufacturers, DTV receiver manufacturers, and DTV signal processing equipment manufacturers.

Single copy price: \$183.00

Obtain an electronic copy from: standards@cta.tech

Order from: Veronica Lancaster, (703) 907-7697, vlancaster@cta.tech

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

**EOS/ESD (ESD Association, Inc.)****Revision**

BSR/ESD S541-201x, ESD Association Standard for the Protection of Electrostatic Discharge Susceptible Items Packaging Materials (revision of ANSI/ESD S541-2003 (R2008))

This document applies to packaging used to store, transport, and protect ESDS electronic items during all phases of production and distribution. This document does not address protection from EMI/RFI/EMP or protection of volatile materials.

Single copy price: \$145.00 (List)/\$115.00 (EOS/ESD Members) [Hardcover]; SC: \$135.00 (List)/\$105.00 (EOS/ESD Members) [Softcover]

Obtain an electronic copy from: cearl@esda.org

Order from: Christina Earl, (315) 339-6937, cearl@esda.org

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

**IAR (International Institute of Ammonia Refrigeration)****Supplement**

BSR/IAR 2-2014, Addendum A-201x, Standard for Safe Design of Closed-Circuit Ammonia Refrigeration Systems (supplement to ANSI/IAR 2-2014)

IAR 2 provides the minimum requirements for the design of safe anhydrous ammonia refrigeration systems. This addendum will correct and clarify to IAR 2-2014 and add absorption refrigeration to the scope.

Single copy price: Public review draft is free. After publication, non-member price is \$300.00, IAR member price is \$150.00.

Obtain an electronic copy from: eric.smith@iiaar.org

Order from: Eric Smith, (703) 312-4200, eric.smith@iiaar.org

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

**ISA (International Society of Automation)****Revision**

BSR/ISA 67.04.01-201x, Setpoints for Nuclear Safety-Related Instrumentation (revision of ANSI/ISA 67.04.01-2006 (R2011))

This standard defines the requirements for assessing, establishing, and maintaining nuclear safety-related and other important instrument setpoints associated with nuclear power plants or nuclear reactor facilities. The scope includes instrumentation-based setpoints that assure compliance to one or more safety or design limits.

Single copy price: \$60.00

Obtain an electronic copy from: ebrazda@isa.org

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

**NEMA (ASC C137) (National Electrical Manufacturers Association)****New Standard**

BSR C137.2-201x, Standard for Lighting Systems - Cybersecurity Requirements for Lighting Systems for Parking Facilities (new standard)

To provide cybersecurity requirements for lighting systems used in parking facilities with public access. This standard provides specifications for the protection of signals and data to, from and within the lighting system, potentially including those that may initiate, control, or monitor non-lighting functions. This standard is not intended to address parking facilities with enhanced security requirements, such as critical infrastructure sectors. This standard does not apply to cybersecurity for safety-related cybersecurity.

Single copy price: \$55.00

Obtain an electronic copy from: karen.willis@nema.org

Order from: Karen Willis, (703) 841-3277, Karen.willis@nema.org

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

**NEMA (ASC C8) (National Electrical Manufacturers Association)****Reaffirmation**

BSR ICEA P-32-382-2006 (R201x), Short Circuit Characteristics of Insulated Conductors (reaffirmation of ANSI ICEA P-32-382-2006 (R2013))

Equations have been established for short-circuit calculations for conductors made of copper or aluminum. The coverings and insulations, which determine the maximum allowable short-circuit temperatures, are paper, varnished cloth, and several thermoplastic and thermosetting materials presently appearing in ICEA standards. Temperature limits, considered safe, were established for the various covering and insulation materials.

Single copy price: \$93.00

Obtain an electronic copy from: Khaled.Masri@nema.org

Order from: Communications@nema.org

Send comments (with copy to psa@ansi.org) to: khaled.masri@nema.org

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

BSR/SCTE 73-201x, Test Method for Insertion Force of Connector to Drop Cable Interface (revision of ANSI/SCTE 73-2012)

This test procedure is designed to measure the amount of linear force required to install a drop ("F") connector onto a drop cable of the proper size.

Single copy price: \$50.00

Obtain an electronic copy from: standards@scte.org

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

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



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

BSR/SCTE 103-201x, Test Method for DC Contact Resistance, Drop cable to F connectors and F 81 Barrels (revision of ANSI/SCTE 103-2012)

The purpose of this test procedure is to measure the contact resistance or intimacy of contact between an F connector and the drop cable shield (outer conductor contact resistance) or the cable center conductor and the F81 barrel (inner conductor contact resistance).

Single copy price: \$50.00

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

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

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

**TIA (Telecommunications Industry Association)****New Standard**

BSR/TIA 604-5-F-201x, FOCIS 5 - Fiber Optic Connector Intermateability Standard - Type MPO (new standard)

The project will revise the existing FOCIS-5 standard to harmonize it with the IEC equivalent documents. The changes are minimal and mostly edits that will allow the document to be in complete harmony with its IEC sister document 61754-7. Technical changes include ferrule orientation options, ferrule travel, contact force and minor upgrades to spring compression definition. The overall scope of the document is not changing.

Single copy price: \$95.00

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

Order from: TIA; [standards@tiaonline.org](mailto:standards@tiaonline.org)

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

**TIA (Telecommunications Industry Association)****Revision**

BSR/TIA 604-18-A-201x, FOCIS 18 - Fiber Optic Connector Intermateability Standard - Type MPO-16 (revision and redesignation of ANSI/TIA 604-18-2015)

The project will revise the existing FOCIS-18 standard to add angle-polished plugs, both up-angle and down-angle, and active device receptacles, one that mates to non-angled plugs and another that mates to down-angled plugs, for ferrules with one fiber row and two fiber rows.

Single copy price: \$88.00

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

Order from: TIA; [standards@tiaonline.org](mailto:standards@tiaonline.org)

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

**UL (Underwriters Laboratories, Inc.)****Reaffirmation**

BSR/UL 2577-2017 (R201x), Standard for Safety for Standard for Suspended Ceiling Grid Low Voltage Systems and Equipment (reaffirmation of ANSI/UL 2577-2017)

Reaffirmation and continuance of the joint UL/ULC first edition of the Standard for Suspended Ceiling Grid Low Voltage Systems and Equipment, CAN/ANSI/ULC/UL 2577, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <http://www.shopulstandards.com>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Julio Morales, (919)549-1097, [Julio.Morales@ul.com](mailto:Julio.Morales@ul.com)

**UL (Underwriters Laboratories, Inc.)****Reaffirmation**

BSR/UL 8754-2014 (R201x), Standard for Safety for Standard for Holders, Bases and Connectors for Solid-State (LED) Light Engines and Arrays (reaffirmation of ANSI/UL 8754-2014)

Reaffirmation and continuance of the joint UL/ULC first edition of the Standard for Holders, Bases and Connectors for Solid-State (LED) Light Engines and Arrays, CAN/ANSI/ULC/UL 8754, as an American National Standard.

Single copy price: Free

Obtain an electronic copy from: <http://www.shopulstandards.com>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Julio Morales, (919)549-1097, [Julio.Morales@ul.com](mailto:Julio.Morales@ul.com)

**UL (Underwriters Laboratories, Inc.)****Revision**

BSR/UL 845-201x, Standard for Safety for Motor Control Centers (revision of ANSI/UL 845-2011)

(1) Remove fuses as a source of arching in regards to ventilation openings and barriers; (2) Insulating materials; (3) Short-circuit unit testing, section preparation; (4) Deletion of footnote 2 of Table 17.

Single copy price: Free

Obtain an electronic copy from: <http://www.shopulstandards.com>

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Mitchell Gold, (847) 664-2850, [Mitchell.Gold@ul.com](mailto:Mitchell.Gold@ul.com)

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

BSR/VITA 46.6-2013 (R201x), Gigabit Ethernet Control Plane on VPX (reaffirmation of ANSI/VITA 46.6-2013)

The objectives of this standard are to assign Gigabit Ethernet Port mappings for the purpose of Control Plane communication onto the VPX connectors for both 3U and 6U form factors and to provide rules and recommendations for the interoperable implementation and use of said Gigabit Ethernet Port mappings.

Single copy price: \$25.00

Obtain an electronic copy from: [admin@vita.com](mailto:admin@vita.com)

Order from: [admin@vita.com](mailto:admin@vita.com)

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

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

BSR/VITA 58.1-2013 (R201x), Line Replaceable Integrated Electronics Chassis Standard, Liquid Cooled Chassis (reaffirmation of ANSI/VITA 58.1-2013)

The objective of this standard is to identify the particular requirements for a chassis configuration conforming to the VITA 58.0 base standard.

Single copy price: \$25.00

Obtain an electronic copy from: [admin@vita.com](mailto:admin@vita.com)

Order from: [admin@vita.com](mailto:admin@vita.com)

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

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

BSR/VITA 66.2-2013 (R201x), Optical Interconnect on VPX - ARINC 801 Termini Variant (reaffirmation of ANSI/VITA 66.2-2013)

The objective of this standard is to define a 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](mailto:admin@vita.com)

Order from: [admin@vita.com](mailto:admin@vita.com)

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

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

BSR/VITA 66.3-2012 (R201x), Optical Interconnect on VPX - Mini Expanded Beam Variant (reaffirmation of ANSI/VITA 66.3-2012)

The objective of this standard is to define a 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](mailto:admin@vita.com)

Order from: [admin@vita.com](mailto:admin@vita.com)

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

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

BSR/VITA 46.1-2007 (S201x), VMEbus Signal Mapping on VPX (stabilized maintenance of ANSI/VITA 46.1-2007 (R2013))

This standard defines a signal mapping for the VMEbus on ANSI/VITA 46.0, VPX Baseline Standard.

Single copy price: \$25.00

Obtain an electronic copy from: [admin@vita.com](mailto:admin@vita.com)

Order from: [admin@vita.com](mailto:admin@vita.com)

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

**Comment Deadline: May 22, 2018**

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

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

BSR/ASME A112.18.1-2012/CSA B125.1-201x, Plumbing Fixture Fittings (revision of ANSI/ASME A112.18.1-2012/CSA B125.1-2012 (R2107))

This Standard covers plumbing supply fittings and accessories located between the supply stop and the terminal fitting, inclusive, as follows: (a) automatic compensating valves for individual wall-mounted showering systems; (b) bath and shower supply fittings; (c) bidet supply fittings; (d) clothes washer supply fittings; (e) commercial pre-rinse spray valves; (f) drinking fountain supply fittings; (g) humidifier supply stops; (h) kitchen, sink, and lavatory supply fittings; (i) laundry tub supply fittings; (j) lawn and sediment faucets; (k) low-pressure water dispensers; (l) metering and self-closing supply fittings; (m) shower heads, hand-held showers, and body sprays; and (n) supply stops.

Single copy price: Free

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

Order from: Mayra Santiago, ASME; [ansibox@asme.org](mailto:ansibox@asme.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Angel Guzman, (212) 591-8018, [guzman@asme.org](mailto:guzman@asme.org)

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

BSR/ASME A112.19.1/CSA B45.2-201x, Enamelled Cast Iron and Enamelled Steel Plumbing Fixtures (revision of ANSI/ASME A112.19.1/CSA B45.2-2013)

This Standard covers enamelled cast iron and enamelled steel plumbing fixtures and specifies requirements for materials, construction, performance, testing, and markings.

Single copy price: Free

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

Order from: Mayra Santiago, ASME; [ansibox@asme.org](mailto:ansibox@asme.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Angel Guzman, (212) 591-8018, [guzman@asme.org](mailto:guzman@asme.org)

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

BSR/ASME A112.3.4-2013 /CSA B45.9-201x, Plumbing Fixtures with Pumped Waste and Macerating Toilet Systems (revision of ANSI/ASME A112.3.4-2013 /CSA B45.9-2013)

This Standard specifies requirements for materials, construction, performance, testing, and markings for macerating toilet systems and waste-pumping systems for plumbing fixtures. Such systems are intended to collect, grind, and pump, or collect and pump waste from a fixture (e.g., a water closet, lavatory, shower, or bathtub) and pump these wastes to the sanitary drainage system.

Single copy price: Free

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

Order from: Mayra Santiago, ASME; [ansibox@asme.org](mailto:ansibox@asme.org)

Send comments (with copy to [psa@ansi.org](mailto:psa@ansi.org)) to: Angel Guzman, (212) 591-8018, [guzman@asme.org](mailto:guzman@asme.org)

**Projects Withdrawn from Consideration**

An accredited standards developer may abandon the processing of a proposed new or revised American National Standard or portion thereof if it has followed its accredited procedures. The following projects have been withdrawn accordingly:

**ASTM (ASTM International)**

BSR/ASTM WK51046-201x, New Specification for Standard Specification for Determining Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment as tested in the field (new standard)

<http://www.astm.org/DATABASE.CART/WORKITEMS/WK51046.htm>

Inquiries may be directed to Corice Leonard, (610) 832-9744, [accreditation@astm.org](mailto:accreditation@astm.org)

## Comment Deadline: May 9, 2018

**The National Fire Protection Association announces the availability of 2019 Annual Revision Cycle First Draft Reports for concurrent review and comment by NFPA and ANSI.**

The disposition of all comments received will be published in the Second Draft Reports, located on the document's information page under the next edition tab. The document's specific URL, [www.nfpa.org/doc#next](http://www.nfpa.org/doc#next) (for example [www.nfpa.org/101next](http://www.nfpa.org/101next)), can easily access the document's information page. All comments on the 2019 Annual Revision Cycle First Draft Reports must be received by May 9, 2018. The First Draft Reports for documents in the 2019 Annual Revision Cycle contain the disposition of public input received for those proposed documents. Anyone wishing to review any of the First Draft Reports for the 2019 Annual Revision Cycle may do so on each document's information page under the next edition tab. The document's specific URL, for example [www.nfpa.org/doc#next](http://www.nfpa.org/doc#next) ([www.nfpa.org/101next](http://www.nfpa.org/101next)), can easily access the document's information page. For more information on the rules and for up-to-date information on schedules and deadlines for processing NFPA Documents, check the NFPA website at <http://www.nfpa.org> or contact NFPA's Codes and Standards Administration, at NFPA, One Batterymarch Park, Quincy, MA, 02269-7471. Those who send comments to NFPA on the related documents are invited to copy ANSI's Board of Standard

### **NFPA (National Fire Protection Association)**

#### **Revision**

BSR/NFPA 58-201x, Liquefied Petroleum Gas Code (revision of ANSI/NFPA 58-2017)

This code shall apply to the storage, handling, transportation, and use of liquefied petroleum gas (LP-Gas).

### **NFPA (National Fire Protection Association)**

#### **Revision**

BSR/NFPA 780-201x, Standard for the Installation of Lightning Protection Systems (revision of ANSI/NFPA 780-2017)

This document shall cover traditional lightning protection system installation requirements for the following: (1) Ordinary structures; (2) Miscellaneous structures and special occupancies; (3) Heavy-duty stacks; (4) structures containing flammable vapors, flammable gases, or liquids that can give off flammable vapors; (5) Structures housing explosive materials; (6) Wind turbines; (7) Watercraft; (8) Airfield lighting circuits; and (9) Solar arrays. This document shall address lightning protection of the structure but not the equipment or installation requirements for electric generating, transmission, and distribution systems except as given in Chapter 9 and Chapter 12.

### **NFPA (National Fire Protection Association)**

#### **Revision**

BSR/NFPA 1452-201x, Guide for Training Fire Service Personnel to Conduct Community Risk Reduction (revision of ANSI/NFPA 1452-2015)

The intent of this document is to provide fire-department training officers or other fire-service personnel with a guide for the establishment of a community fire-safety program for dwellings. To be effective and to adequately deal with local fire problems, the solution to a particular fire safety problem should be developed locally. This document is intended to be a basic guide to possible elements for inclusion in a locally developed program. Because the majority of fire deaths occur in residential occupancies, it is essential that fire safety survey programs become an integral part of the total fire safety program in a community. This guide can be applied to both rural and urban communities. Principles contained in this document can be applied to single-family as well as multifamily dwellings, such as apartments, town houses, and condominiums, as local conditions dictate. This document is not intended to be a training manual or a fire inspection manual, but rather to serve as a guide for establishing a locally prepared dwelling inspection program geared to address the specific problem(s) faced by the local fire service organization. By utilizing fire suppression personnel in this capacity, fire departments can achieve some or all of the following benefits: (1) Increased productivity; (2) Increased community contact; and (3) Familiarization with residential properties. Residents of the community also benefit from a survey program by becoming aware of the following issues: (1) Fire safety in the home; (2) Protective measures to improve the quality of life; and (3) Public safety and awareness. Specific sections of this guide can be included or eliminated as local conditions dictate.

### **NFPA (National Fire Protection Association)**

#### **Revision**

BSR/NFPA 1710-201x, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (revision of ANSI/NFPA 1710-2016)

This standard contains minimum requirements relating to the organization and deployment of fire-suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. This standard also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. This standard addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

**NFPA (National Fire Protection Association)*****Revision***

BSR/NFPA 1936-201x, Standard on Powered Rescue Tools (revision of ANSI/NFPA 1936-2015)

This standard shall specify the minimum requirements for the design, performance, testing, and product conformance verification of powered rescue tools and components. This standard shall specify the requirements for spreader, ram, cutter, and combination powered rescue tools. This standard shall also specify the requirements for cable assemblies, hose assemblies, and power unit components for powered rescue tools. This standard shall not specify any requirements for any accessories for powered rescue tools or components. This standard shall not be construed as addressing all of the safety concerns, if any, associated with its use. It shall be the responsibility of the persons and organizations that use this standard to establish safety and health practices and determine the applicability of regulatory limitations prior to use of this standard. Nothing herein shall restrict any jurisdiction from specifying powered rescue tool systems and components that exceed the minimum requirements of this standard. Nothing in this standard shall restrict any manufacturer from producing powered rescue tools and components that exceed the minimum requirements of this standard.

**NFPA (National Fire Protection Association)*****Revision***

BSR/NFPA 2113-201x, Standard on Selection, Care, Use, and Maintenance of Flame-Resistant Garments for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire (revision of ANSI/NFPA 2113-2015)

This standard shall specify the minimum selection, care, use, and maintenance requirements for flame-resistant garments for use by industrial personnel in areas at risk from flash fires or short-duration flame exposure that are compliant with NFPA 2112, Standard on Flame-Resistant Garments for Protection of Industrial Personnel against Flash Fire. This standard shall not apply to protective clothing for wildland fire fighting, technical rescue, structural fire fighting, proximity fire fighting, or any other fire-fighting operations, or hazardous materials emergencies. This standard shall not apply to protection from electrical flashes, radiological agents, biological agents, or hazardous materials.

# 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.

## ASQ (ASC Z1) (American Society for Quality)

**Office:** 600 N Plankinton Ave  
Milwaukee, WI 53203

**Contact:** Julie Sharp

**Phone:** (800) 248-1946

**E-mail:** standards@asq.org

BSR/ASQ/ISO 9004-201x, Quality management Quality of an organization Guidance to achieve sustained success (identical national adoption of ISO 9004:2018 and revision of ANSI/ASQ ISO 9004-201x)

BSR/ASQ/ISO 10006-201x, Quality management Guidelines for quality management in projects (identical national adoption of ISO 10006:2017 and revision of ANSI/ASQ/ISO 10006-201x)

BSR/ASQ/ISO 10007-201x, Quality management Guidelines for configuration management (identical national adoption of ISO 10007:2017 and revision of ANSI/ASQ ISO 10007-201x)

## ASSE (ASC A10) (American Society of Safety Engineers)

**Office:** 520 N. Northwest Highway  
Park Ridge, IL 60068

**Contact:** Tim Fisher

**Phone:** (847) 768-3411

**Fax:** (847) 296-9221

**E-mail:** TFisher@ASSE.org

BSR ASSE A10.48-201X, Criteria for Safety Practices with the Construction, Demolition, Modification and Maintenance of Communication Structures (revision of ANSI ASSE A10.48-2016)

## CTA (Consumer Technology Association)

**Office:** 1919 South Eads Street  
Arlington, VA 22202

**Contact:** Veronica Lancaster

**Phone:** (703) 907-7697

**Fax:** (703) 907-4197

**E-mail:** vlancaster@cta.tech

BSR/CTA 708-E-2013 (R201x), Digital Television (DTV) Closed Captioning (reaffirmation of ANSI/CTA 708-E-2013 (R201x))

## EOS/ESD (ESD Association, Inc.)

**Office:** 7900 Turin Rd., Bldg. 3  
Rome, NY 13440

**Contact:** Christina Earl

**Phone:** (315) 339-6937

**Fax:** (315) 339-6793

**E-mail:** cearl@esda.org

BSR/ESD S541-201x, ESD Association Standard for the Protection of Electrostatic Discharge Susceptible Items Packaging Materials (revision of ANSI/ESD S541-2003 (R2008))

## ISA (International Society of Automation)

**Office:** 67 Alexander Drive  
Research Triangle Park, NC 27709

**Contact:** Eliana Brazda

**Phone:** (919) 990-9228

**Fax:** (919) 549-8288

**E-mail:** ebrazda@isa.org

BSR/ISA 67.04.01-201x, Setpoints for Nuclear Safety-Related Instrumentation (revision of ANSI/ISA 67.04.01-2006 (R2011))

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

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

**Contact:** Rachel Porter

**Phone:** (202) 737-8888

**E-mail:** comments@standards.incits.org

INCITS 537-2016/AM 1-201x, Information technology - Zoned-device ATA Commands - Amendment 1 (ZAC-AM 1) (addenda to INCITS 537-2016)

INCITS 560-201x, Information technology - Fibre Channel - Physical Interfaces - 8 (FC-PI-8) (new standard)

## NAAMM (National Association of Architectural Metal Manufacturers)

**Office:** 123 College Place  
#1101  
Norfolk, VA 23510

**Contact:** Vernon (Wes) Lewis

**Phone:** (757) 489-0787

**E-mail:** wlewis7@cox.net

BSR/NAAMM HMMA 841-2013 (R201x), Tolerances and Clearances for Commercial Hollow Metal Doors and Frames (reaffirmation of ANSI/NAAMM HMMA 841-2013)

BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 860-2013)

BSR/NAAMM HMMA 862-201x, Guide Specifications for Commercial Security Hollow Metal doors and Frames (revision of ANSI/NAAMM HMMA 862-2013)

**NEMA (ASC C137) (National Electrical Manufacturers Association)**

**Office:** 1300 North 17th Street, Suite 900  
Rosslyn, VA 22209

*Contact:* Karen Willis

**Phone:** (703) 841-3277

**E-mail:** Karen.willis@nema.org

BSR C137.2-201x, Standard for Lighting Systems - Cybersecurity Requirements for Lighting Systems for Parking Facilities (new standard)

**NEMA (ASC C8) (National Electrical Manufacturers Association)**

**Office:** 1300 North 17th Street  
Rosslyn, VA 22209

*Contact:* Khaled Masri

**Phone:** (703) 841-3278

**Fax:** (703) 841-3398

**E-mail:** Khaled.Masri@nema.org

BSR ICEA P-32-382-2006 (R201x), Short Circuit Characteristics of Insulated Conductors (reaffirmation of ANSI ICEA P-32-382-2006 (R2013))

**NSF (NSF International)**

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

*Contact:* Allan Rose

**Phone:** (734) 827-3817

**Fax:** (734) 827-7875

**E-mail:** arose@nsf.org

BSR/NSF 2-201x (i26r2), Food Equipment (revision of ANSI/NSF 2-2016)

**TIA (Telecommunications Industry Association)**

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

*Contact:* Teesha Jenkins

**Phone:** (703) 907-7706

**Fax:** (703) 907-7727

**E-mail:** standards@tiaonline.org

BSR/TIA 604-5-F-201x, FOCIS 5 - Fiber Optic Connector Interchangeability Standard - Type MPO (new standard)

BSR/TIA 604-18-A-201x, FOCIS 18 - Fiber Optic Connector Interchangeability Standard - Type MPO-16 (revision and redesignation of ANSI/TIA 604-18-2015)

**UL (Underwriters Laboratories, Inc.)**

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

*Contact:* Griff Edwards

**Phone:** 919 549-0956

**E-mail:** griff.edwards@ul.com

BSR/UL 2525-201x, Outline of Investigation for Rescue Assistance Two-Way Emergency Communication Systems for Stairwell and Elevator Landing/Lobby Areas of Refuge (new standard)



# **Call for Members (ANS Consensus Bodies)**

## **Call for Committee Members**

### **ASC O1 – Safety Requirements for Woodworking Machinery**

Are you interested in contributing to the development and maintenance of valuable industry safety standards? The ASC O1 is currently looking for members in the following categories:

- General Interest
- Government
- Producer
- User

If you are interested in joining the ASC O1, contact WMMA Associate Director Jennifer Miller at [jennifer@wmma.org](mailto:jennifer@wmma.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.

## AIAA (American Institute of Aeronautics and Astronautics)

### *New Standard*

ANSI/AIAA S-080A-2018, Space Systems - Metallic Pressure Vessels, Pressurized Structures, and Pressure Components (new standard): 3/20/2018

ANSI/AIAA S-081B-2018, Space Systems - Composite Overwrapped Pressure Vessels (new standard): 3/20/2018

## ANS (American Nuclear Society)

### *New Standard*

ANSI/ANS 2.6-2018, Guidelines for Estimating Present and Forecasting Future Population Distributions Surrounding Nuclear Facility Sites (new standard): 3/16/2018

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

### *Reaffirmation*

ANSI/APCO 1.111.2-2013 (R2018), Public Safety Communications Common Disposition Codes for Data Exchange (reaffirmation and redesignation of ANSI/APCO ANS 1.111.1-2013): 3/20/2018

## ASTM (ASTM International)

### *Revision*

ANSI/ASTM E2816-2018a, Test Methods for Fire Resistive Metallic HVAC Duct Systems (revision of ANSI/ASTM E2816-2018): 3/15/2018

## AWWA (American Water Works Association)

### *New Standard*

ANSI/AWWA F120-2018, Ozone Systems for Water (new standard): 3/16/2018

## CTA (Consumer Technology Association)

### *Revision*

- \* ANSI/CTA 2045-A-2018, Modular Communications Interface for Energy Management (revision, redesignation and consolidation of ANSI/CTA 2045-2013, ANSI/CTA 2045 Amendment 1-2014): 3/16/2018

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

### *Addenda*

INCITS 481-2011/AM1-2018, Information technology - Fibre Channel Protocol for SCSI - 4 (FCP-4) - Amendment 1 (addenda to INCITS 481-2011): 3/20/2018

### *New National Adoption*

INCITS/ISO 19110:2016 [2018], Geographic information - Methodology for feature cataloguing (identical national adoption of ISO 19110:2016 and revision of INCITS/ISO 19110:2005 [R2015]): 3/16/2018

INCITS/ISO/IEC 20000-6:2017 [2018], Information technology - Service management - Part 6: Requirements for bodies providing audit and certification of service management systems (identical national adoption of ISO/IEC 20000-6:2017): 3/16/2018

INCITS/ISO/IEC 38505-1:2017 [2018], Information technology - Governance of IT - Governance of data - Part 1: Application of ISO/IEC 38500 to the governance of data (identical national adoption of ISO/IEC 38505-1:2017): 3/16/2018

### *Stabilized Maintenance*

INCITS 215:1994 [S2018], Information Systems - Programming Languages - Forth (stabilized maintenance of INCITS 215:1994 [R2011]): 3/16/2018

## NEMA (ASC C8) (National Electrical Manufacturers Association)

### *Revision*

- \* ANSI ICEA S-108-720-2018, Standard for Extruded Insulation Power Cables Rated above 46 through 500 KV AC (revision of ANSI ICEA S-108-720-2012): 3/16/2018

## NISO (National Information Standards Organization)

### *Reaffirmation*

ANSI/NISO/LBC Z39.78-2000 (R2018), Library Binding (reaffirmation of ANSI/NISO/LBI Z39.78-2000 (R2010)): 3/16/2018

## NSF (NSF International)

### *New Standard*

ANSI/NSF 358-4-2018 (i1r3), Polyethylene of Raised Temperature (PE-RT) Tubing and Fittings for Water-Based Ground-Source (Geothermal) Heat Pump Systems. (new standard): 3/19/2018

### *Revision*

- \* ANSI/NSF 49-2018 (i109r1), Biosafety Cabinetry: Design, Construction, Performance, and Field Certification (revision of ANSI/NSF 49-2016): 3/16/2018
- \* ANSI/NSF 50-2018 (i126r1), Equipment for Swimming Pools, Spas, Hot Tubs and Other Recreational Water Facilities (revision of ANSI/NSF 50-2016): 3/13/2018

## TIA (Telecommunications Industry Association)

### *New Standard*

ANSI/TIA 920.123-2018, Transmission Requirements for Digital Interface Communications Devices with Group Speakerphone (new standard): 3/16/2018

## UL (Underwriters Laboratories, Inc.)

### *Revision*

ANSI/UL 312-2018, Standard for Safety for Check Valves for Fire-Protection Service (revision of ANSI/UL 312-2010 (R2015)): 3/15/2018

ANSI/UL 1206-2018, Standard for Safety for Electric Commercial Clothes-Washing Equipment (Proposal dated 1-26-18) (revision of ANSI/UL 1206-2017): 3/16/2018

ANSI/UL 1240-2018, Standard for Safety for Electric Commercial Clothes-Drying Equipment (Proposal dated 1-26-18) (revision of ANSI/UL 1240-2017): 3/16/2018

ANSI/UL 1557-2018, Standard for Safety for Electrically Isolated Semiconductor Devices (revision of ANSI/UL 1557-2014): 3/19/2018

ANSI/UL 2523-2018, Standard for Safety for Solid Fuel-Fired Hydronic Heating Appliances, Water Heaters and Boilers (revision of ANSI/UL 2523-2013): 3/16/2018

# Correction

## Misprint in Final Actions Listing

### ANSI/APCO/NENA 1.102.1-2008

The following approved ANS had a misprint in ANSI Final Actions notice and is listed correctly here:

ANSI/APCO/NENA 1.102.2-2010, Public Safety Answering Point (PSAP) Service Capability Rating Scale (revision and redesignation of ANSI/APCO/NENA 1.102.1-2008), Final Action: 7/28/2010.

# Project Initiation Notification System (PINS)

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

Following is a list of proposed actions and new ANS that have been received recently from ASDs. Please also review the section in Standards Action entitled "American National Standards Maintained Under Continuous Maintenance" for additional or comparable information with regard to standards maintained under the continuous maintenance option. Use the following Public Document Library url to access PDF & EXCEL reports of approved & proposed ANS. [List of Approved and Proposed ANS](#)

Directly and materially affected interests wishing to receive more information or to submit comments are requested to contact the standards developer directly within 30 days of the publication of this announcement.

---

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

Contact: *Teresa Ambrosius, (719) 453-1036, [tambrosius@aafs.org](mailto:tambrosius@aafs.org)*

BSR/ASB BPR 031-201x, Guidelines for Report Writing in Bloodstain Pattern Analysis (new standard)

Stakeholders: Forensic bloodstain pattern analysis professionals.

Project Need: Bloodstain pattern analysis reports require certain items of information in order to clearly outline and build support for conclusions provided. The proposed document specifically provides aspects of bloodstain pattern analysis information which should be included and what types of conclusions should be avoided.

This document provides guidelines for report writing in bloodstain pattern analysis (BPA). In addition, guidance is provided regarding statements to be avoided in the report.

BSR/ASB Std 030-201x, Standards for a Quality Assurance Program in Bloodstain Pattern Analysis (new standard)

Stakeholders: Forensic bloodstain pattern analysis professionals.

Project Need: Agencies and forensic practitioners in bloodstain pattern analysis would benefit by having a foundation document providing the minimal quality assurance requirements to develop an effective quality program.

A quality assurance program is necessary to ensure the quality of the work product that comes from any forensic service provider. This document is designed to provide requirements for a quality assurance program in bloodstain pattern analysis to forensic service providers.

## **ASSE (ASC A10) (American Society of Safety Engineers)**

Contact: *Tim Fisher, (847) 768-3411, [TFisher@ASSE.org](mailto:TFisher@ASSE.org)*

BSR ASSE A10.48-201X, Criteria for Safety Practices with the Construction, Demolition, Modification and Maintenance of Communication Structures (revision of ANSI ASSE A10.48-2016)

Stakeholders: Occupational safety and health professionals and any stakeholders impacted by the scope of the proposed standard.

Project Need: Based upon the consensus of the ANSI/ASSE A10 Committee and stakeholders using the standard

This standard establishes minimum criteria for safe work practices and training for personnel performing work on communication structures including antenna and antenna-supporting structures, broadcast and other similar structures supporting communication-related equipment.

## **ASSE (Safety) (American Society of Safety Engineers)**

Contact: *Ovidiu Munteanu, (847) 232-2012, [OMunteanu@ASSE.org](mailto:OMunteanu@ASSE.org)*

BSR/ASSE Z9.2-201X, Fundamentals Governing the Design and Operation of Local Exhaust Ventilation Systems (revision and redesignation of ANSI/AIHA Z9.2-2001 (R2011))

Stakeholders: Occupational safety and health professionals or those stakeholders designing, operating, or managing local exhaust ventilation systems.

Project Need: Based upon the consensus of the Z9 committee, occupational safety and health professionals, and the ASSE leadership.

This Standard establishes minimum requirements for the commissioning, design, specification, construction, and installation of fixed industrial local exhaust ventilation (LEV) systems used for the reduction and prevention of employee exposure to harmful airborne substances in the industrial environment. It also establishes fundamental requirements for the management, operation, maintenance, and testing of LEV systems to assure satisfactory performance over the life of the system, as well as the basic requirements for replacing air exhausted from the space.

BSR/ASSE Z9.6-201x (R201x), Exhaust Systems for Grinding, Polishing and Buffing (reaffirmation of ANSI/AIHA Z9.6-2008)

Stakeholders: Occupational safety and health professionals or those stakeholders engaged in or working near grinding, polishing, and buffing operations as well as those responsible for controlling contaminants generated by those operations.

Project Need: Based upon the consensus of the Z9 Committee, occupational safety and health professionals, and the ASSE leadership.

The requirements and emission and exposure control principles described in this standard represent the minimum criteria intended to protect the health of personnel engaged in and working in the vicinity of grinding, polishing, and buffing operations and to control contaminants generated by those operations.

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

Contact: Rachel Porter, (202) 737-8888, [comments@standards.incits.org](mailto:comments@standards.incits.org)

INCITS 537-2016/AM 1-201x, Information technology - Zoned-device ATA Commands - Amendment 1 (ZAC-AM 1) (addenda to INCITS 537-2016)

Stakeholders: ICT industry.

Project Need: The published version of ZAC includes incorrect sense code reporting requirements. These are not consistent within the specification.

The scope will include corrections and clarifications to ZAC, including resolution of conflicting additional sense code information.

INCITS 560-201x, Information technology - Fibre Channel - Physical Interfaces - 8 (FC-PI-8) (new standard)

Stakeholders: ICT industry.

Project Need: This project will define the requirements for new physical layer variants that operate at higher data rates than those specified in FC-PI-7. The project will consider all aspects of transmit, receive, and cable-plant performance requirements for optical and electrical links. The standard will enable interoperability of transmitter devices, receiver devices, interconnects, and components among different manufacturers.

The proposed project involves a compatible evolution of the present Fibre Channel physical layer. Such evolutionary improvements may include an increase in the data rate of optical and electrical links in:

- Backplanes;
- Horizontal and vertical wiring;
- Inter- and intra-building connections; and
- Server room channels.

It is desirable to enable the reuse of legacy optical and electrical cable plants.

#### **ITSDF (Industrial Truck Standards Development Foundation, Inc.)**

Contact: Chris Merther, (202) 296-9880, [chris.merther@itsdf.org](mailto:chris.merther@itsdf.org)

BSR/ITSDF B56.1a-201x, Low Lift and High Lift Trucks (addenda to ANSI/ITSDF B56.1-2016)

Stakeholders: Users and manufacturers of powered industrial trucks.

Project Need: OSHA recently removed the allowance for the use of body belts for fall arrest. The requirements of the standard need to be corrected so as to not be in conflict with OSHA.

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of low-lift and high-lift powered industrial trucks controlled by a riding or walking operator and intended for use on compacted, improved surfaces.

BSR/ITSDF B56.10-201X (R201x), Manually Propelled High Lift Industrial Trucks (reaffirmation of ANSI/ITSDF B56.10-2012)

Stakeholders: Users and manufacturers of powered industrial trucks.

Project Need: A revision is in process but anticipated completion is taking much longer than originally planned. Reaffirm to keep current.

This Standard defines the safety requirements relating to the elements of design, operation, and maintenance of manually propelled high-lift industrial trucks controlled by a walking operator and intended for use on level, improved surfaces.

BSR/ITSDF B56.11.4-2013 (R201x), Hook-Type Forks and Fork Carriers for Powered Industrial Forklift Trucks (reaffirmation of ANSI/ITSDF B56.11.4-2013)

Stakeholders: Users and manufacturers of powered industrial trucks.

Project Need: A revision is in process but anticipated completion is taking much longer than originally thought. Reaffirm to keep current.

The scope of this Standard encompasses standards relative to hook-type fork carriers and the attaching elements of fork arms and load-handling attachments for forklift trucks, in relation to the manufacturer's rated capacities of trucks up to and including 11,000 kg (24,000 lb).

BSR/ITSDF B56.11.5-2014 (R201x), Measurement of Sound Emitted by Low Lift, High Lift, and Rough Terrain Powered Industrial Trucks (reaffirmation of ANSI/ITSDF B56.11.5-2014)

Stakeholders: Users and manufacturers of industrial trucks.

Project Need: Content still current.

This Standard establishes the conditions, test procedures, environment, and instrumentation for the determination and reporting of the A-weighted sound-pressure level of electric battery and internal-combustion-engine-powered, low-lift, high-lift, and rough-terrain industrial trucks. It excludes earthmoving machinery, industrial cranes, and vehicles intended primarily for use on public roads. It provides test procedures for measuring both operator and bystander exposure to sound produced by the trucks.

BSR/ITSDF B56.11.6-201X, Evaluation of Visibility From Powered Industrial Trucks (revision of ANSI/ITSDF B56.11.6-2005 (R2013))

Stakeholders: Users and manufacturers of powered industrial trucks.

Project Need: Requirements need updating.

This Standard specifies the requirements and test procedures for all-round visibility of self-propelled industrial trucks with a rated capacity up to and including 10 000 kg, (22,000 lb) and industrial variable-reach trucks with a rated capacity up to and including 10 000 kg (22,000 lb) (as defined below), with a sit-on or stand-on operator, without load, and equipped with fork arms or load platform.

BSR/ITSDF B56.11.8-201X, Safety Standard for Seat Belt (Lap-Type) Anchorage Systems for Powered Industrial Trucks (revision of ANSI/ITSDF B56.11.8-2015)

Stakeholders: Users and manufacturers of powered industrial trucks.

Project Need: Update of requirements needed.

This procedure provides the performance and testing requirements for anchorage systems of lap-type belts (seat belts) provided with counterbalanced, center-control, high-lift trucks that have a sit-down, non-elevating operator.

#### **NAAMM (National Association of Architectural Metal Manufacturers)**

Contact: *Vernon (Wes) Lewis, (757) 489-0787, wlewis7@cox.net*

BSR/NAAMM HMMA 841-2013 (R201x), Tolerances and Clearances for Commercial Hollow Metal Doors and Frames (reaffirmation of ANSI/NAAMM HMMA 841-2013)

Stakeholders: Engineers, architects, government, and members of the Hollow Metal industry.

Project Need: The previous version of this standard has proven to provide viable and accurate tolerances to be obtained during construction and the standard is suitable to be reaffirmed for its intended purpose.

This standard provided guidance concerning tolerances and clearances for the manufacture of commercial hollow metal doors and frames

BSR/NAAMM HMMA 860-201x, Guide Specifications for Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 860-2013)

Stakeholders: Architects, engineers, contractors, government, and others in the Design and Construction industry.

Project Need: It has been determined that the industry would be well served if these standards are consolidated into a single standard.

Due to the similarities between HMMA 860 and HMMA 867, it has been decided to revise HMMA 860 to include requirements appropriate for the construction of laminated core hollow metal doors.

BSR/NAAMM HMMA 862-201x, Guide Specifications for Commercial Security Hollow Metal Doors and Frames (revision of ANSI/NAAMM HMMA 862-2013)

Stakeholders: Architects, engineers, contractors, and entities in the design and construction of facilities having security requirements.

Project Need: Developments in security door requirements necessitate the revision of the existing standard.

This standard provides guidance for the construction of security hollow metal doors for the construction industry.

BSR/NAAMM HMMA 865-201x, Guide Specifications for Sound Control Hollow Metal Door and Frame Assemblies (revision of ANSI/NAAMM HMMA 865-2013)

Stakeholders: Architects, engineers, contractors, and entities in the design and construction of facilities requiring sound control doors.

Project Need: Developments in sound control door requirements necessitate the revision of the existing standard.

This standard provides guidance for the construction of sound control hollow metal doors for the construction industry.

#### **NEMA (ASC C8) (National Electrical Manufacturers Association)**

Contact: *Khaled Masri, (703) 841-3278, Khaled.Masri@nema.org*

BSR ICEA S-115-730-201x, Standard for Multi-Dwelling Unit (MDU) Optical Fiber Cable (revision of ANSI ICEA S-115-730-2012)

Stakeholders: Telecommunication service providers.

Project Need: This standard addresses the specific requirements applicable to cables used in multiple dwelling units.

Multi-Dwelling Unit (MDU) cables covered by this standard include two classes of cables using single mode fiber. The first class includes cables used for distribution and delivery of optical fiber from a demarcation point starting at a conventional optical fiber cable, optical fiber splitter or active optical device through an aesthetic duct or less rigorous routing path. This class of cable may consist of an indoor-only rated cable, the Compact Drop or Small Form Factor Compact Drop. The second class of cable is defined to be more rugged and is described as cables that usually terminate at the customer electronics, or Optical Network Terminal (ONT). The rugged cable class may be stapled, routed around corners under tension, and coiled in a tight diameter. Examples include the Rugged Indoor Drop or Indoor/Outdoor Rugged Drop. See clause 1.4 for a more detailed definition of these cable types. Fiber mechanical reliability requires that a cable classified as Rugged shall meet the enhanced mechanical reliability requirements set forth in this document. Cables containing Multimode fibers are not covered by this standard. MDU cables using Multimode fibers should follow the intent in this standard using optical limits given by ICEA 596 where appropriate.



**UL (Underwriters Laboratories, Inc.)**

Contact: Griff Edwards, 919 549-0956, [griff.edwards@ul.com](mailto:griff.edwards@ul.com)

BSR/UL 2525-201x, Outline of Investigation for Rescue Assistance Two-Way Emergency Communication Systems for Stairwell and Elevator Landing/Lobby Areas of Refuge (new standard)

Stakeholders: Area of refuge (area of rescue assistance) manufacturers; fire alarm system manufacturers; UL 864 (UOJZ and UOXX); UL 2572; AHJs; users; first responders.

Project Need: To obtain national recognition of a standard covering rescue-assistance two-way emergency communication systems for stairwell and elevator landing/lobby areas of refuge.

(1) These requirements cover discrete equipment used for rescue assistance purposes via a two-way emergency communication system to provide live voice communication between a constantly attended location and occupants in need of assistance that are unable to egress during an emergency due to a physical limitation. (2) These requirements cover products to be employed in accordance with the following: (a) National Fire Alarm and Signaling Code, NFPA 72; (b) Life Safety Code, NFPA 101; (c) Building Construction and Safety Code, NFPA 5000; and (d) International Building Code, 2018.

# American National Standards Maintained Under Continuous Maintenance

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

The standard shall be maintained by an accredited standards developer. A documented program for periodic publication of revisions shall be established by the standards developer. Processing of these revisions shall be in accordance with these procedures. The published standard shall include a clear statement of the intent to consider requests for change and information on the submittal of such requests. Procedures shall be established for timely, documented consensus action on each request for change and no portion of the standard shall be excluded from the revision process. In the event that no revisions are issued for a period of four years, action to reaffirm or withdraw the standard shall be taken in accordance with the procedures contained in the ANSI Essential Requirements.

The Executive Standards Council (ExSC) has determined that for standards maintained under the Continuous Maintenance option, separate PINS announcements are not required. The following ANSI Accredited Standards Developers have formally registered standards under the Continuous Maintenance option

- AAMI (Association for the Advancement of Medical Instrumentation)
- AARST (American Association of Radon Scientists and Technologists)
- AGA (American Gas Association)
- AGSC-AGRSS (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)
- 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, Inc.)

To obtain additional information with regard to these standards, including contact information at the ANSI Accredited Standards Developer, please visit ANSI Online at [www.ansi.org/asd](http://www.ansi.org/asd), select "Standards Activities," click on "Public Review and Comment" and "American National Standards Maintained Under Continuous Maintenance." This information is also available directly at [www.ansi.org/publicreview](http://www.ansi.org/publicreview)

Alternatively, you may contact the Procedures & Standards Administration department (PSA) at [psa@ansi.org](mailto:psa@ansi.org) or via fax at 212-840-2298. If you request that information be provided via E-mail, please include your E-mail address; if you request that information be provided via fax, please include your fax number. Thank you.

# ANSI-Accredited Standards Developers Contact Information

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

<p><b>AAFS</b> American Academy of Forensic Sciences 410 North 21st Street Colorado Springs, CO 80904 Phone: (719) 453-1036 Web: <a href="http://www.aafs.org">www.aafs.org</a></p>	<p><b>ASSE (Safety)</b> American Society of Safety Engineers 520 N. Northwest Highway Park Ridge, IL 60068 Phone: (847) 768-3411 Fax: (847) 296-9221 Web: <a href="http://www.asse.org">www.asse.org</a></p>	<p><b>ISA (Organization)</b> International Society of Automation 67 Alexander Drive Research Triangle Park, NC 27709 Phone: (919) 990-9228 Fax: (919) 549-8288 Web: <a href="http://www.isa.org">www.isa.org</a></p>	<p><b>NISO</b> National Information Standards Organization 3600 Clipper Mill Road Suite 302 Baltimore, MD 21211 Phone: (301) 654-2512 Fax: (410) 685-5278 Web: <a href="http://www.niso.org">www.niso.org</a></p>
<p><b>AIAA</b> American Institute of Aeronautics and Astronautics 12700 Sunrise Valley Drive, Suite 200 Reston, VA 20191-5807 Phone: (703) 264-7546 Web: <a href="http://www.aiaa.org">www.aiaa.org</a></p>	<p><b>ASTM</b> ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959 Phone: (610) 832-9744 Fax: (610) 834-3683 Web: <a href="http://www.astm.org">www.astm.org</a></p>	<p><b>ITI (INCITS)</b> InterNational Committee for Information Technology Standards 1101 K Street NW Suite 610 Washington, DC 20005 Phone: (202) 737-8888 Web: <a href="http://www.incits.org">www.incits.org</a></p>	<p><b>NSF</b> NSF International 789 N. Dixboro Road Ann Arbor, MI 48105-9723 Phone: (734) 827-3817 Fax: (734) 827-7875 Web: <a href="http://www.nsf.org">www.nsf.org</a></p>
<p><b>ANS</b> American Nuclear Society 555 North Kensington Avenue La Grange Park, IL 60526 Phone: (708) 579-8268 Fax: (708) 579-8248 Web: <a href="http://www.ans.org">www.ans.org</a></p>	<p><b>AWS</b> American Welding Society 8669 NW 36 ST., #130 Miami, FL 33166 Phone: (800) 443-9353 Fax: (305) 443-5951 Web: <a href="http://www.aws.org">www.aws.org</a></p>	<p><b>ITSDF</b> Industrial Truck Standards Development Foundation, Inc. 1750 K Street NW Suite 460 Washington, DC 20006 Phone: (202) 296-9880 Fax: (202) 296-9884 Web: <a href="http://www.indtrk.org">www.indtrk.org</a></p>	<p><b>SCTE</b> Society of Cable Telecommunications Engineers 140 Philips Rd Exton, PA 19341 Phone: (800) 542-5040 Fax: (800) 542-5040 Web: <a href="http://www.scte.org">www.scte.org</a></p>
<p><b>APCO</b> Association of Public-Safety Communications Officials-International 351 N. Williamson Boulevard Daytona Beach, FL 32114 Phone: (920) 579-1153 Web: <a href="http://www.apcolntl.org">www.apcolntl.org</a></p>	<p><b>AWWA</b> American Water Works Association 6666 W. Quincy Ave. Denver, CO 80235 Phone: (303) 347-6178 Fax: (303) 795-7603 Web: <a href="http://www.awwa.org">www.awwa.org</a></p>	<p><b>NAAMM</b> National Association of Architectural Metal Manufacturers 123 College Place #1101 Norfolk, VA 23510 Phone: (757) 489-0787 Web: <a href="http://www.naamm.org">www.naamm.org</a></p>	<p><b>TIA</b> Telecommunications Industry Association 1320 North Courthouse Road Suite 200 Arlington, VA 22201 Phone: (703) 907-7706 Fax: (703) 907-7727 Web: <a href="http://www.tiaonline.org">www.tiaonline.org</a></p>
<p><b>ASHRAE</b> American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta, GA 30329 Phone: (678) 539-1143 Fax: (678) 539-2159 Web: <a href="http://www.ashrae.org">www.ashrae.org</a></p>	<p><b>CTA</b> Consumer Technology Association 1919 South Eads Street Arlington, VA 22202 Phone: (703) 907-7697 Fax: (703) 907-4197 Web: <a href="http://www.cta.tech">www.cta.tech</a></p>	<p><b>NEMA (ASC C137)</b> National Electrical Manufacturers Association 1300 North 17th Street, Suite 900 Rosslyn, VA 22209 Phone: (703) 841-3277 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>UL</b> Underwriters Laboratories, Inc. 12 Laboratory Drive Research Triangle Park, NC 27709-3995 Phone: 919 549-0956 Web: <a href="http://www.ul.com">www.ul.com</a></p>
<p><b>ASME</b> American Society of Mechanical Engineers Two Park Avenue New York, NY 10016 Phone: (212) 591-8521 Fax: (212) 591-8501 Web: <a href="http://www.asme.org">www.asme.org</a></p>	<p><b>EOS/ESD</b> ESD Association 7900 Turin Rd., Bldg. 3 Rome, NY 13440 Phone: (315) 339-6937 Fax: (315) 339-6793 Web: <a href="http://www.esda.org">www.esda.org</a></p>	<p><b>NEMA (ASC C8)</b> National Electrical Manufacturers Association 1300 North 17th Street Rosslyn, VA 22209 Phone: (703) 841-3278 Fax: (703) 841-3398 Web: <a href="http://www.nema.org">www.nema.org</a></p>	<p><b>VITA</b> VMEbus International Trade Association (VITA) 929 W. Portobello Avenue Mesa, AZ 85210 Phone: (602) 281-4497 Web: <a href="http://www.vita.com">www.vita.com</a></p>
<p><b>ASQ (ASC Z1)</b> American Society for Quality 600 N Plankinton Ave Milwaukee, WI 53203 Phone: (800) 248-1946 Web: <a href="http://www.asq.org">www.asq.org</a></p>	<p><b>IIAR</b> International Institute of Ammonia Refrigeration 1001 N. Fairfax Street Suite 503 Alexandria, VA 22314-1797 Phone: (703) 312-4200 Fax: (703) 312-0065 Web: <a href="http://www.iiar.org">www.iiar.org</a></p>	<p><b>NFPA</b> National Fire Protection Association One Batterymarch Park Quincy, MA 02169 Phone: (617) 984-7246 Web: <a href="http://www.nfpa.org">www.nfpa.org</a></p>	



# ISO & IEC Draft International Standards

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

## Comments

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

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

## Ordering Instructions

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

## ISO Standards

### ADDITIVE MANUFACTURING (TC 261)

ISO/ASTM DIS 52902, Additive manufacturing - Test artefacts - Standard guideline for geometric capability assessment of additive manufacturing systems - 6/3/2018, \$102.00

ISO/ASTM DIS 52900, Additive manufacturing - General principles - Terminology - 6/3/2018, \$93.00

### AIRCRAFT AND SPACE VEHICLES (TC 20)

ISO/DIS 18441, Space data and information transfer systems - Space link extension - Application program interface for transfer services - Core specification - 6/3/2018, \$258.00

ISO/DIS 21077, Space data and information transfer systems - Digital motion imagery - 6/3/2018, \$102.00

ISO/DIS 22669, Space data and information transfer systems - Space link extension (SLE) - Return-all-frames service specification - 6/3/2018, \$175.00

ISO/DIS 22670, Space data and information transfer systems - Space link extension (SLE) - Return-channel-frames service specification - 6/3/2018, \$175.00

ISO/DIS 22671, Space data and information transfer systems - Space link extension (SLE) - Forward communications link transmission unit (CLTU) service specification - 6/3/2018, \$175.00

ISO/DIS 22672, Space data and information transfer systems - Space link extension (SLE) - Forward space packet service specification - 6/3/2018, \$194.00

ISO/DIS 23103, Space link extension - Cross support transfer service - Specification framework - 6/3/2018, \$245.00

ISO/DIS 23104, Space link extension - Cross support transfer service - Monitored data service - 6/3/2018, \$165.00

ISO/DIS 26143, Space data and information transfer systems - Space link extension (SLE) - Return operational control fields service specification - 6/3/2018, \$175.00

### ERGONOMICS (TC 159)

ISO/DIS 24507, Ergonomics - Accessible design - Doors and handles of consumer products - 6/3/2018, \$46.00

### GAS CYLINDERS (TC 58)

ISO/DIS 9809-1, Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes - Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa - 6/3/2018, \$112.00

ISO/DIS 9809-2, Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes - Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1 100 MPa - 6/3/2018, \$119.00

ISO/DIS 9809-3, Gas cylinders - Design, construction and testing of refillable seamless steel gas cylinders and tubes - Part 3: Normalized steel cylinders and tubes - 6/3/2018, \$112.00

### HYDROMETRIC DETERMINATIONS (TC 113)

ISO/DIS 8368, Hydrometric determinations - Flow measurements in open channels using structures - Guidelines for selection of structure - 6/7/2018, \$93.00

### IMPLANTS FOR SURGERY (TC 150)

ISO 7199/DAmD1, Cardiovascular implants and artificial organs - Blood-gas exchangers (oxygenators) - Amendment 1: Connectors - 6/7/2018, \$53.00

ISO 15674/DAmD1, Cardiovascular implants and artificial organs - Hard-shell cardiomy/venous reservoir systems (with/without filter) and soft venous reservoir bags - Amendment 1: Connectors - 6/7/2018, \$53.00

ISO 15675/DAmD1, Cardiovascular implants and artificial organs - Cardiopulmonary bypass systems - Arterial blood line filters - Amendment 1: Connectors - 6/7/2018, \$53.00

ISO 18241/DAmD1, Cardiovascular implants and extracorporeal systems - Cardiopulmonary bypass systems - Venous bubble traps - Amendment 1 - 6/7/2018, \$53.00

IEC/DIS 60601-2-31, Medical electrical equipment - Part 2-31: Particular requirements for the basic safety and essential performance of external cardiac pacemakers with internal power source, \$119.00

### INDUSTRIAL FANS (TC 117)

ISO/DIS 12759-4, Fans - Efficiency classification for fans - Part 4: Driven fans at maximum operating speed - 6/2/2018, \$88.00

**LEATHER (TC 120)**

ISO/DIS 20942, Leather - Full chrome upper leather - Specification and test methods - 6/4/2018, \$40.00

**NUCLEAR ENERGY (TC 85)**

ISO/DIS 18589-5, Measurement of radioactivity in the environment - Soil - Part 5: Strontium 90 - Test method using proportional counting or liquid scintillation counting - 5/31/2018, \$98.00

**OPTICS AND OPTICAL INSTRUMENTS (TC 172)**

ISO/DIS 19962, Optics and photonics - Spectroscopic measurement methods for integrated scattering by plane parallel optical elements - 4/8/2018, \$77.00

**PAINTS AND VARNISHES (TC 35)**

ISO/DIS 21546, Paints and varnishes - Determination of the resistance to rubbing using a linear abrasion tester (crockmeter) - 6/4/2018, \$71.00

**RUBBER AND RUBBER PRODUCTS (TC 45)**

ISO/DIS 2921, Rubber, vulcanized - Determination of low-temperature characteristics - Temperature-retraction procedure (TR test) - 6/3/2018, \$46.00

**TECHNICAL DRAWINGS, PRODUCT DEFINITION AND RELATED DOCUMENTATION (TC 10)**

IEC/DIS 81346-2, Industrial systems, installations and equipment and industrial products - Structuring principles and reference designations - Part 2: Classification of objects and codes for classes, \$155.00

**TOBACCO AND TOBACCO PRODUCTS (TC 126)**

ISO/DIS 22253, Cigarettes - Determination of nicotine in total particulate matter from the mainstream smoke under intense smoking conditions - Gas-chromatographic method - 6/4/2018, \$53.00

**TRADITIONAL CHINESE MEDICINE (TC 249)**

ISO/DIS 22212, Traditional Chinese medicine - Gastrodia elata tuber - 6/4/2018, \$67.00

**TRANSFUSION, INFUSION AND INJECTION EQUIPMENT FOR MEDICAL USE (TC 76)**

ISO/DIS 8536-4, Infusion equipment for medical use - Part 4: Infusion sets for single use, gravity feed - 4/8/2018, \$71.00

**TYRES, RIMS AND VALVES (TC 31)**

ISO/DIS 13325, Tyres - Coast-by methods for measurement of tyre-to-road sound emission - 6/3/2018, \$53.00

**IEC Standards**

3D/312/DC, IEC Common Data Dictionary (IEC CDD): C00076 Warranty, 2018/5/18

3D/311/DC, IEC Common Data Dictionary (IEC CDD): C00075 Conformance statement, 2018/5/18

5/196/CDV, IEC 60045-1 ED2: Steam turbines - Part 1: Specifications, 018/6/8/

5/199/FDIS, ISO 10494 ED2: Turbines and turbine sets - Measurement of emitted airborne noise - Engineering/survey method, 2018/4/27

10/1056/FDIS, IEC 60376 ED3: Specification of technical grade sulfur hexafluoride (SF6) and complementary gases to be used in its mixtures for use in electrical equipment, 2018/4/27

17A/1178/CD, IEC 62271-100 ED3: High-voltage switchgear and controlgear - Part 100: Alternating current circuit-breakers, 018/6/8/

21A/654/Q, Change of stability date for IEC 61951-1:2017 ED4: Secondary cells and batteries containing alkaline or other non-acid electrolytes - Secondary sealed cells and batteries for portable applications - Part 1: Nickel-Cadmium, 2018/5/25

21A/653/Q, Change of stability date for the IEC 60993:1989: Secondary cells and batteries containing alkaline or other non-acid electrolyte - Electrolyte for vented nickel-cadmium cells, 2018/5/18

21A/652/Q, Change of stability date for IEC 60622:2002: Secondary cells and batteries containing alkaline or other non-acid electrolyte - Sealed nickel-cadmium prismatic rechargeable single cells, 2018/5/18

23/780/NP, PNW 23-780: General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS) - Part 6: Requirements for planning and installation, 2018/5/11

23A/849/CDV, IEC 60981 ED3: Extra heavy-duty electrical rigid steel conduits, 018/6/8/

23A/850/CDV, IEC 61950 ED3: Cable management systems - Specifications for conduit fittings and accessories for cable installations for extra heavy duty electrical steel conduit, 018/6/8/

45A/1184/CDV, IEC 62954 ED1: Nuclear power plants - Control rooms - Requirements for emergency response facilities, 018/6/8/

46/681/FDIS, IEC 62153-4-9 ED2: Metallic communication cable test methods - Part 4-9: Electromagnetic compatibility (EMC) - Coupling attenuation of screened balanced cables, triaxial method, 2018/4/27

47E/601/NP, PNW 47E-601: Future IEC 60747-5-13: Semiconductor devices - Part 5-13: Optoelectronic devices - Hydrogen sulphide corrosion test for LED packages, 018/6/8/

61/5631/FDIS, IEC 60335-2-6/AMD1 ED6: Amendment 1: Household and similar electrical appliances - Safety - Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances, 2018/4/27

62A/1256/CD, IEC 60601-1-2/AMD1 ED4: Amendment 1 - Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests., 2018/5/11

62D/1574/FDIS, ISO 80601-2-79 ED1: Medical Electrical Equipment - Part 2-79: Particular requirements for basic safety and essential performance of home healthcare environment ventilatory support equipment for respiratory impairment, 2018/4/27

62D/1578/CDV, ISO 80601-2-84: Medical electrical equipment - Part 2-84: Particular requirements for the basic safety and essential performance of emergency and transport ventilators, 018/6/8/

62D/1583/CDV, ISO 80601-2-56/AMD1 ED2: Medical electrical equipment - Part 2-56: Particular requirements for basic safety and essential performance of clinical thermometers for body temperature measurement, 018/6/8/

62D/1575/FDIS, ISO 80601-2-80 ED1: Medical Electrical Equipment - Part 2-80: Particular requirements for basic safety and essential performance of home healthcare environment ventilatory support equipment for respiratory insufficiency, 2018/4/27

65A/862/CD, IEC 61326-1 ED3: Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements, 018/6/8/

65A/863/CD, IEC 61326-2-6 ED3: Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment, 018/6/8/

- 82/1410A/CD, IEC 63092-2 ED1: Photovoltaics in buildings - Part 2: Building integrated photovoltaic systems, 018/6/1/
- 82/1409A/CD, IEC 63092-1 ED1: Photovoltaics in buildings - Part 1: Building integrated photovoltaic modules, 018/6/1/
- 86B/4125/FDIS, IEC 63032 ED1: Fibre optic interconnecting devices and passive components - Fibre optic tuneable bandpass filters - Generic specification, 2018/4/27
- 87/674/CDV, IEC 60565-2 ED1: Underwater acoustics - Hydrophones - Calibration of hydrophones, Part 2: Procedures for low frequency pressure calibration, 018/6/8/
- 87/681/DTS, IEC TS 63001 ED1: Measurement of cavitation noise in devices used for ultrasonic cleaning, 018/6/8/
- 89/1397/CD, IEC 60695-2-12 ED3: Fire hazard testing - Part 2-12: Glowing/hot-wire based test methods - Glow-wire flammability index (GWFI) test method for materials, 2018/5/11
- 89/1398/CD, IEC 60695-2-13 ED3: Fire hazard testing - Part 2-13: Glowing/hot-wire based test methods - Glow-wire ignition temperature (GWIT) test method for materials, 2018/5/11
- 110/972/DTR, IEC TR 62977-2-4 ED1: Electronic displays - Part 2-4: Transparent Displays - Overview of application scenarios, 2018/5/11
- 110/971/CD, IEC 62977-2-2 ED1: Electronic displays - Part 2-2: Measurements of optical characteristics - Ambient performance, 2018/5/11
- 112/423/CD, IEC TR 62039 ED2: Selection guide for polymeric materials for outdoor use under HV stress, 018/6/8/
- CIS/H/355/NP, PNW CIS/H-355: Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for equipment in commercial and light-industrial locations, 018/6/8/
- CIS/H/356/CD, IEC 61000-6-3/AMD2/FRAG1 ED2: Amendment 2, Fragment 1 - Electromagnetic compatibility (EMC) - Part 6-3: Generic standards - Emission standard for residential, commercial and light-industrial environments, 018/6/8/
- CIS/I/578/DC, ESD testing requirements in CISPR 35, 2018/4/27





# Newly Published ISO & IEC Standards

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

## ISO Standards

### AIRCRAFT AND SPACE VEHICLES (TC 20)

[ISO 22431:2018](#), Aerospace series - Pipe coupling 8°30 - Dynamic beam seal end for ferrule, welded - Geometric configuration, \$45.00

[ISO 22433:2018](#), Aerospace series - Pipe coupling 8°30 - Dynamic beam seal end for elbows, tees and crosses - Geometric configuration, \$45.00

[ISO 22436:2018](#), Aerospace series - Pipe coupling 8°30 - Thread end - Geometric configuration, \$68.00

[ISO 22437:2018](#), Aerospace series - Pipe coupling 8°30 in titanium alloy - Nut for welded ferrule, \$45.00

[ISO 22438:2018](#), Aerospace series - Pipe coupling 8°30 in titanium alloy - Thrust wires, \$45.00

### CRYOGENIC VESSELS (TC 220)

[ISO 21012:2018](#), Cryogenic vessels - Hoses, \$103.00

### DENTISTRY (TC 106)

[ISO 10139-1:2018](#), Dentistry - Soft lining materials for removable dentures - Part 1: Materials for short-term use, \$68.00

### FIRE SAFETY (TC 92)

[ISO 20902-1:2018](#), Fire test procedures for divisional elements that are typically used in oil, gas and petrochemical industries - Part 1: General requirements, \$162.00

### FOOTWEAR (TC 216)

[ISO 18896:2018](#), Footwear - Test methods for shanks - Longitudinal stiffness, \$45.00

[ISO 20866:2018](#), Footwear - Test methods for insoles - Delamination resistance, \$45.00

[ISO 20867:2018](#), Footwear - Test methods for insoles - Heel pin holding strength, \$45.00

[ISO 20872:2018](#), Footwear - Test methods for outsoles - Tear strength, \$45.00

[ISO 20874:2018](#), Footwear - Test methods for outsoles - Needle tear strength, \$45.00

[ISO 20875:2018](#), Footwear - Test methods for outsoles - Determination of split tear strength and delamination resistance, \$45.00

[ISO 20876:2018](#), Footwear - Test methods for insoles - Resistance to stitch tear, \$45.00

[ISO 22650:2018](#), Footwear - Test methods for whole shoe - Heel attachment, \$68.00

### GEOTECHNICS (TC 182)

[ISO 22477-4:2018](#), Geotechnical investigation and testing - Testing of geotechnical structures - Part 4: Testing of piles: dynamic load testing, \$209.00

### MACHINE TOOLS (TC 39)

[ISO 19085-4:2018](#), Woodworking machines - Safety - Part 4: Vertical panel circular sawing machines, \$162.00

### MICROBEAM ANALYSIS (TC 202)

[ISO 25498:2018](#), Microbeam analysis - Analytical electron microscopy - Selected area electron diffraction analysis using a transmission electron microscope, \$185.00

### OPTICS AND OPTICAL INSTRUMENTS (TC 172)

[ISO 19979:2018](#), Ophthalmic optics - Contact lenses - Hygienic management of multipatient use trial contact lenses, \$68.00

### PLASTICS (TC 61)

[ISO 11357-3:2018](#), Plastics - Differential scanning calorimetry (DSC) - Part 3: Determination of temperature and enthalpy of melting and crystallization, \$45.00

### ROAD VEHICLES (TC 22)

[ISO 19453-1:2018](#), Road vehicles - Environmental conditions and testing for electrical and electronic equipment for drive system of electric propulsion vehicles - Part 1: General, \$103.00

[ISO 19453-3:2018](#), Road vehicles - Environmental conditions and testing for electrical and electronic equipment for drive system of electric propulsion vehicles - Part 3: Mechanical loads, \$185.00

[ISO 19453-4:2018](#), Road vehicles - Environmental conditions and testing for electrical and electronic equipment for drive system of electric propulsion vehicles - Part 4: Climatic loads, \$185.00

[ISO 19453-5:2018](#), Road vehicles - Environmental conditions and testing for electrical and electronic equipment for drive system of electric propulsion vehicles - Part 5: Chemical loads, \$68.00

### SMALL TOOLS (TC 29)

[ISO 10103:2018](#), Assembly tools for screws and nuts - Doubled-headed box wrenches, flat and offset - Outside dimensions and test torques, \$45.00

### SURFACE CHEMICAL ANALYSIS (TC 201)

[ISO 20289:2018](#), Surface chemical analysis - Total reflection X-ray fluorescence analysis of water, \$138.00

**TECHNICAL DRAWINGS, PRODUCT DEFINITION AND RELATED DOCUMENTATION (TC 10)**

[ISO 128-33:2018](#), Technical product documentation (TPD) - General principles of presentation - Part 33: Representation of views, sections and cuts in construction drawings, \$68.00

**TEXTILES (TC 38)**

[ISO 15496:2018](#), Textiles - Measurement of water vapour permeability of textiles for the purpose of quality control, \$103.00

[ISO 3175-4:2018](#), Textiles - Professional care, drycleaning and wetcleaning of fabrics and garments - Part 4: Procedure for testing performance when cleaning and finishing using simulated wetcleaning, \$68.00

**ISO Technical Reports****MEASUREMENT OF FLUID FLOW IN CLOSED CONDUITS (TC 30)**

[ISO/TR 3313:2018](#), Measurement of fluid flow in closed conduits - Guidelines on the effects of flow pulsations on flow-measurement instruments, \$185.00

**TEXTILES (TC 38)**

[ISO/TR 17881-3:2018](#), Textiles - Determination of certain flame retardants - Part 3: Chlorinated paraffin flame retardants, \$68.00

**ISO Technical Specifications****FLUID POWER SYSTEMS (TC 131)**

[ISO/TS 17165-2:2018](#), Hydraulic fluid power - Hose assemblies - Part 2: Practices for hydraulic hose assemblies, \$138.00

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

[ISO/IEC 29121:2018](#), 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 TS 29003:2018](#), Information technology - Security techniques - Identity proofing, \$138.00

**IEC Standards****ELECTRIC CABLES (TC 20)**

[IEC 60754-3 Ed. 1.0 en:2018](#), Test on gases evolved during combustion of materials from cables - Part 3: Measurement of low level of halogen content by ion chromatography, \$164.00

**ELECTRIC TRACTION EQUIPMENT (TC 9)**

[IEC 62973-1 Ed. 1.0 b:2018](#), Railway applications - Rolling stock - Batteries for auxiliary power supply systems - Part 1: General requirements, \$235.00

**ENVIRONMENTAL CONDITIONS, CLASSIFICATION AND METHODS OF TEST (TC 104)**

[IEC 60721-2-7 Ed. 2.0 en:2018](#), Classification of environmental conditions - Part 2: Environmental conditions appearing in nature - Fauna and flora, \$82.00

**EQUIPMENT FOR ELECTRICAL ENERGY MEASUREMENT AND LOAD CONTROL (TC 13)**

[IEC 62052-11 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - General requirements, tests and test conditions - Part 11: Metering equipment, \$0.00

[IEC 62052-21 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - General requirements, tests and test conditions - Part 21: Tariff and load control equipment, \$0.00

[IEC 62053-11 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - Particular requirements - Part 11: Electromechanical meters for active energy (classes 0,5, 1 and 2), \$0.00

[IEC 62053-21 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - Particular requirements - Part 21: Static meters for active energy (classes 1 and 2), \$0.00

[IEC 62053-22 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - Particular requirements - Part 22: Static meters for active energy (classes 0,2 S and 0,5 S), \$0.00

[IEC 62053-23 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - Particular requirements - Part 23: Static meters for reactive energy (classes 2 and 3), \$0.00

[IEC 62053-24 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering equipment (A.C.) - Particular requirements - Part 24: Static meters for reactive energy at fundamental frequency (classes 0,5 S, 1 S and 1), \$0.00

[IEC 62054-11 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering (A.C.) - Tariff and load control - Part 11: Particular requirements for electronic ripple control receivers, \$0.00

[IEC 62054-21 Amd.1 Ed. 1.0 b cor.1:2018](#), Corrigendum 1 - Amendment 1 - Electricity metering (A.C.) - Tariff and load control - Part 21: Particular requirements for time switches, \$0.00

**INSULATION CO-ORDINATION (TC 28)**

[IEC 60071-2 Ed. 4.0 b:2018](#), Insulation co-ordination - Part 2: Application guidelines, \$387.00

[S+ IEC 60071-2 Ed. 4.0 en:2018 \(Redline version\)](#), Insulation co-ordination - Part 2: Application guidelines, \$503.00

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

[IEC 62504 Ed. 1.1 b:2018](#), General lighting - Light emitting diode (LED) products and related equipment - Terms and definitions, \$235.00

[IEC 62504 Amd.1 Ed. 1.0 b:2018](#), Amendment 1 - General lighting - Light emitting diode (LED) products and related equipment - Terms and definitions, \$12.00

**POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)**

[IEC 61850-SER Ed. 1.0 en:2018](#), Communication networks and systems for power utility automation - ALL PARTS, \$9220.00

[IEC 61970-SER Ed. 1.0 b:2018](#), Energy management system application program interface (EMS-API) - ALL PARTS, \$2995.00

[IEC 61970-456 Ed. 2.0 b:2018](#), Energy management system application program interface (EMS-API) - Part 456: Solved power system state profiles, \$352.00

#### **SURFACE MOUNTING TECHNOLOGY (TC 91)**

[IEC 61760-4 Ed. 1.1 b:2018](#), Surface mounting technology - Part 4: Classification, packaging, labelling and handling of moisture sensitive devices, \$322.00

### **IEC Technical Reports**

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

[IEC/TR 63158 Ed. 1.0 en:2018](#), Equipment for general lighting purposes - Objective test method for stroboscopic effects of lighting equipment, \$235.00

#### **PROCESS MANAGEMENT FOR AVIONICS (TC 107)**

[IEC/TR 62240-1 Ed. 2.0 en:2018](#), Process management for avionics - Electronic components capability in operation - Part 1: Temperature uprating, \$317.00

### **IEC Technical Specifications**

#### **POWER SYSTEM CONTROL AND ASSOCIATED COMMUNICATIONS (TC 57)**

[IEC/TS 61850-7-7 Ed. 1.0 en:2018](#), Communication networks and systems for power utility automation - Part 7-7: Machine-processable format of IEC 61850-related data models for tools, \$352.00

[IEC/TS 62361-102 Ed. 1.0 en:2018](#), Power systems management and associated information exchange - Interoperability in the long term - Part 102: CIM - IEC 61850 harmonization, \$375.00

#### **SOLAR PHOTOVOLTAIC ENERGY SYSTEMS (TC 82)**

[IEC/TS 62257-7-3 Ed. 2.0 en:2018](#), Recommendations for renewable energy and hybrid systems for rural electrification - Part 7-3: Generator set - Selection of generator sets for rural electrification systems, \$281.00

### **ISO Technical Specifications**

#### **PROCESS MANAGEMENT FOR AVIONICS (TC 107)**

[S+ IEC/TR 62240-1 Ed. 2.0 en:2018 \(Redline version\)](#), Process management for avionics - Electronic components capability in operation - Part 1: Temperature uprating, \$412.00

# 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.

The following is a list of alphanumeric organization names that have been submitted to ANSI for registration. 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

Antech Imaging Services

Public Review: March 9 to June 1, 2018

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; Fax: (301) 926-1559; E-mail: [usatbtep@nist.gov](mailto:usatbtep@nist.gov) or [notifyus@nist.gov](mailto:notifyus@nist.gov).

# Information Concerning

---

## American National Standards

### Call for Members

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

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

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

Membership in the INCITS Executive Board is open to all directly and materially affected parties in accordance with INCITS membership rules. To find out more about participating on the INCITS Executive Board, contact Jennifer Garner at [jgarner@itic.org](mailto:jgarner@itic.org) or visit <http://www.incits.org/participation/membership-info> for more information.

Membership in all interest categories is always welcome; however, the INCITS Executive Board seeks to broaden its membership base in the following categories:

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

### Society of Cable Telecommunications

#### ANSI Accredited Standards Developer

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

SCTE is currently seeking to broaden the membership base of its AN consensus bodies and is interested in new members in all membership categories to participate in new work in fiber-optic networks, advanced advertising, 3D television, and other important topics. Of particular interest is membership from the content (program and advertising) provider and user communities.

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

## International Organization for Standardization (ISO)

### Call for U.S. TAG Administrator

#### ISO/TC 34 – Food Products

ANSI has been informed that American Oil Chemists Society (AOCS), the ANSI-accredited U.S. TAG Administrator for ISO/TC 34, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 34 operates under the following scope:

Standardization in the field of human and animal foodstuffs, covering the food chain from primary production to consumption, as well as animal and vegetable propagation materials, in particular, but not limited to, terminology, sampling, methods of test and analysis, product specifications, food and feed safety and quality management and requirements for packaging, storage and transportation

Excluded :

- products covered by ISO/TC 54 Essential oils and ISO/TC 93 Starch (including derivatives and by-products).

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](mailto:isot@ansi.org)).

#### ISO/TC 34/SC 18 – Cocoa

ANSI has been informed that American Oil Chemists Society (AOCS), the ANSI-accredited U.S. TAG Administrator for ISO/TC 34/SC 18, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 34/SC 18 operates under the following scope:

Standardization in the field of cocoa, including, but not limited to, terminology, sampling, product specifications, test methods, and requirements and verification criteria for determination of the sustainability and traceability of cocoa respectively.

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](mailto:isot@ansi.org)).

#### ISO/TC 180 – Solar Energy

ANSI has been informed that the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE), the ANSI-accredited U.S. TAG Administrator for ISO/TC 180, wishes to relinquish their role as U.S. TAG Administrator.

ISO/TC 180 operates under the following scope:

Standardization in the field of solar energy utilization in space and water heating, cooling, industrial process heating and air conditioning.

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](mailto:isot@ansi.org)).



## Establishment of ISO Project Committee

### ISO/PC 316 – Water Efficient Products – Banding

A new ISO Project Committee, ISO/PC 316 – Water efficient products – Banding, has been formed. The Secretariat has been assigned to Australia (SA).

ISO/PC 316 operates under the following scope:

Standardization in the field of water efficient products - bandings.

Organizations interested in participating on the U.S. TAG should contact ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)).

### ISO/PC 317 – Consumer Protection: Privacy by Design for Consumer Goods and Services

A new ISO Project Committee, ISO/PC 317 – Consumer protection: privacy by design for consumer goods and services, has been formed. The Secretariat has been assigned to the United Kingdom (BSI).

ISO/PC 317 operates under the following scope:

Standardization in the field of consumer protection: privacy by design for consumer goods and services.

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

## ISO New Work Item Proposal

### Guidelines on Integrating a Business Excellence Framework with ISO Management System Standards

#### Comment Deadline: April 13, 2018

SCC, the ISO member body for Canada, and BSI, the ISO member body for the UK, have jointly submitted to ISO a new work item proposal for the development of an ISO standard on Guidelines on Integrating a Business Excellence Framework with ISO Management System Standards, with the following scope statement:

Organizations implementing single or multiple management systems and simultaneously the Business Excellence framework are faced with the major challenge of lack of alignment. This can be attributed to multiple factors, including but not limited to, organizational design/structure, responsibilities matrix, contextual understanding of the linkages/inter-dependencies, silo mentality and turf protection.

“Guidelines on Integrating a Business Excellence Framework with ISO management system standards” will provide the roadmap on integrating the national/international business excellence frameworks with management system standards for enhancing organizational efficiency, facilitating effective decision-making, and promoting transparency, innovation and continuous improvement.

Scope will exclude the development of an ISO Business Excellence standard and/or development of ISO Management System standard/s. Instead, it will focus on the integration aspects, available best practices, and provision of useful practical tips for better organizational management.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 13, 2018.

## Tableware, Giftware, Jewellery, Luminaries – Glass Clarity – Classification and Test Method

### Comment Deadline: April 27, 2018

SAC, the ISO member body for China, has submitted to ISO a new work item proposal for the development of an ISO standard on Tableware, Giftware, Jewellery, Luminaries - Glass Clarity - Classification and Test Method, with the following scope statement:

The proposed International Standard will establish requirements for the use of the designations “clear glass” and “ultra-clear glass” for non-coloured glass according to their clarity and iron content. The standard will specify a procedure for measuring the clarity of glass items by means of a spectrophotometer.

The standard will cover:

- mineral glass, and
- glass in items where the glass component is not covered by coating or decoration, and is therefore accessible for sampling.

The scope of this International Standard includes glass used as tableware, giftware, jewellery and luminaries. It excludes glass used in construction work, containers, medicine and laboratories, or in other types of technical applications.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 27, 2018.

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

### Karst

#### Comment Deadline: April 20, 2018

SAC, the ISO member body for China, has submitted to ISO a proposal for a new field of ISO technical activity on Karst, with the following scope statement:

Standardization in the field of karst terminology, sustainable development of karst resources, environmental protection and management of karst environment, as well as investigation and assessment (including modeling methods and mapping of karst systems).

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 20, 2018.

## Musical Instruments

### Comment Deadline: April 13, 2018

SAC, the ISO member body for China, has submitted to ISO a proposal for a new field of ISO technical activity on Musical Instruments, with the following scope statement:

Standardization in the field of musical instruments including: standardization of classification, terminology, products, safe use, test methods and conformity assessment rules.

Excluded: Standardization within the scope of IEC/TC 100.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 13, 2018.



# Meeting Notice

## ASC Z133 Committee (Safety Standards for Arboriculture Operations)

The next meeting of the ASC Z133 Committee (Safety Standards for Arboricultural Operations) for the 2022 Revision Cycle has been established as follows:

**DATE:** April 11, 2018

**TIME:** 8:00 am - 5:00 pm (Breakfast from 7am - 8am)

**ROOM:** Concourse CD

**LOCATION:**

Hilton Baltimore BWI Airport  
1739 West Nursery Road  
Linthicum Heights, MD 21090

# Information Concerning International Organization for Standardization (ISO)

## ISO Proposal for a New Field of ISO Technical Activity Transaction Assurance in E-Commerce

### Comment Deadline: April 27, 2018

SAC, the ISO member body for China, and AFNOR, the national standards body for France, have submitted to ISO a proposal for a new field of ISO technical activity on Transaction Assurance in E-Commerce, with the following scope statement:

Standardization in the field of “transaction assurance and upstream/downstream directly related processes in e-commerce”, including the following:

- The assurance of transaction process in e-commerce (including easier access to e-platforms and e-stores);
- The protection of online consumer rights including both prevention of online disputes and resolution process;
- The interoperability and admissibility of commodity quality inspection result in cross-border e-commerce;
- The assurance of e-commerce delivery to the final consumer.

Excluded:

- Management system standards already covered by ISO/TC 176;
- Authenticity, integrity and trust for products and documents standards already covered by ISO/TC 292/WG4;
- Guidelines on consumer warranties and guarantees standards already covered by ISO/PC 303;
- Meta-standards of information interchange standards already covered by ISO/TC 154;
- Cross-border trade of second-hand goods standards already covered by ISO/PC 245;
- Brand evaluation standards already covered by ISO/TC 289;
- Online reputation standards already covered by ISO/TC290;
- Financial services standards already covered by ISO/TC 68;
- Identity management standards already covered by ISO/IEC/JTC1/SC27/WG5;
- Meta-standards of data management and interchange already covered by ISO/IEC/JTC1/SC32;
- Biometrics standards already covered by ISO/IEC/JTC1/SC37.

Since the payment and security of the transaction are very important in e-commerce, the proposed new technical committee will cooperate with ISO/TC 68(Financial services), ISO/IEC/JTC1/SC27 (IT Security techniques)and other TC via a liaison membership. If request for developing new standards for e-commerce in those TCs arose, the proposed new TC would work with them to develop the needed standards.

Anyone wishing to review the proposal can request a copy by contacting ANSI's ISO Team ([isot@ansi.org](mailto:isot@ansi.org)), with a submission of comments to Steve Cornish ([scornish@ansi.org](mailto:scornish@ansi.org)) by close of business on Friday, April 27, 2018.



**BSR/ASHRAE Addendum f  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

**Proposed Addendum f to  
Standard 62.1-2016, Ventilation for  
Acceptable Indoor Air Quality**

**Second Public Review (February 2018)  
(Draft shows Proposed Independent Substantive Changes  
to Previous Public Review Draft)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum f to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
Second (ISC) Public Review Draft

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

## FOREWORD

*This revision clarifies that minimum primary airflow rates are established for both the Simplified and Alternative Procedures.*

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

## Addendum f to 62.1-2016

---

**Add clause to Section 6.2.5.2 clarifying that minimum primary airflow rates are established with both Simplified and Alternative procedures.**

**6.2.5.2 System Ventilation Efficiency.** The system ventilation efficiency ( $E_v$ ) shall be determined in accordance with Section 6.2.5.3-1 for the Simplified Procedure or Normative Appendix A Section A1.3 for the Alternative Procedure ~~in Normative Appendix A.~~

**Informative Note:** These procedures also establish zone minimum primary airflow rates for VAV systems.

**Modify Section A1.2.1 of Normative Appendix A as follows:**

**A1.2.1 Single Supply Systems.** For single supply systems, wherein all of the air supplied to each ventilation zone is a mixture of outdoor air and system-level recirculated air, zone ventilation efficiency ( $E_{vz}$ ) shall be determined in accordance with Equation A1.2.1-1. Examples of single supply systems include constant-volume reheat, single-duct VAV, single-fan dual-duct, and multizone systems.

$$E_{vz} = 1 + X_s - Z_{pz} \quad (\text{A1.2.1-1})$$

where the average outdoor air fraction for the system ( $X_s$ ) is determined in accordance with Equation A1.1, and the primary outdoor air fraction for the zone ( $Z_{pz}$ ) is determined in accordance with Equation A1.2.1-2.

$$Z_{pz} = V_{oz}/V_{pz} \quad (\text{A1.2.1-2})$$

For VAV systems,  $V_{pz}$  is the lowest zone primary airflow value expected at the design condition analyzed.



**BSR/ASHRAE Addendum g  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum g to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2017 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum g to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*The current wording exempts “spaces that are intended primarily for other purposes”. But this could be interpreted as requiring ventilation for spaces that are seldom occupied like exit stairways and passageways, which are seldom ventilated in standard practice. The key clause with respect to ventilation is whether spaces are “occupied occasionally and for short periods of time.” This proposed change makes that clear and adds the example of emergency exit passageways to make that application specifically exempt.*

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

## Addendum g to 62.1-2016

---

***Revise the following definition in Section 3 as shown below. The remainder of Section 3 is unchanged.***

***occupiable space:*** an enclosed space intended for human activities, excluding ~~those~~ spaces that are intended primarily for other purposes, such as storage rooms and equipment rooms, and that are only to be occupied occasionally and for short periods of time, such as storage rooms, equipment rooms, and emergency exitways.



**BSR/ASHRAE Addendum h  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum h to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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



BSR/ASHRAE Addendum h to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum modifies Informative Appendix G to add informative text that is contained in the current scope.*

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

## Addendum h to 62.1-2016

---

*Revise Informative Appendix G as shown below.*

### INFORMATIVE APPENDIX G APPLICATION ~~AND COMPLIANCE~~

This appendix contains application and compliance suggestions that are intended to assist users and enforcement agencies in applying this standard.

Although the standard may be applied to both new and existing buildings, the provisions of this standard are not intended to be applied retroactively when the standard is used as a mandatory regulation or code.

For the most part, ANSI/ASHRAE Standard 62.1-2016 is specifically written for new buildings because some of its requirements assume that other requirements within the standard have been met. In the case of existing buildings, retroactive application and compliance with all the requirements of this standard may not be practical. However, the principles established in this standard may be applied to most existing commercial and institutional buildings. Some existing buildings may achieve acceptable IAQ despite not meeting the requirements of Standard 62.1-2016 due to, for example, good maintenance and capital improvement procedures, building materials that, by virtue of their age, have very low contaminant emission rates, and many other factors.

#### G1. APPLICATION

**G1.1 New Buildings.** All sections and normative appendices should apply to new buildings falling within the scope of this standard.

**G1.2 Existing Buildings.** The standard should be applied to existing buildings at least in the circumstances described in the following subsections.

**G1.2.1 Additions to Existing Buildings.** All additions to existing buildings should meet the requirements of this standard as if the addition were a new building. An exception may be made when an existing ventilation system is extended to serve the addition. In this case, the existing system components, such as fans and cooling and heating equipment, need not meet the requirements of this standard. However, the extended existing

BSR/ASHRAE Addendum h to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

system should remain in compliance with ventilation codes and standards that were in effect at the time it was permitted for construction.

**G1.2.2 Repairs.** Repairing (making operational) existing equipment or other building components does not require the building or any of its components to retroactively comply with this standard.

**G1.2.3 Replacement.** Any component of a building that is removed and replaced should meet the applicable requirements of Section 5, “Systems and Equipment,” of this standard for that component. An exception may be made in cases when replacing a component of like size and kind, provided all requirements of codes and standards used at the time of original system design and installation are met. For example, replacement of an air-conditioning unit with one of similar capacity would not require retroactive compliance with ventilation rates and other requirements of this standard. Unaltered components do not need to be retroactively brought into compliance except when there are substantial alterations (as defined below).

**G1.2.4 Substantial Alterations.** If a building is substantially altered, the requirements of this standard should be met as if the building were new. A building would be considered substantially altered if the cost of the revisions exceeds 50% of the building’s fair market value, excluding the cost of compliance with this standard.

**G1.2.5 Change in Use.** If the space application category as listed in Table 6.2.2.1 changes, such as from office to retail, the minimum ventilation rates required by Section 6, “Procedures,” should be met for that space.

**G1.2.6 Contaminants.** Ventilation requirements of this standard are based on chemical, physical, and biological contaminants that can affect air quality.

**G1.2.7 Thermal Comfort.** Control of thermal comfort is not required by this standard. Requirements for thermal comfort are contained in ANSI/ASHRAE 55-2017. Note that there are strong correlations between peoples’ perception of indoor air quality and perception of thermal comfort.

**G1.2.8 Limitations.** Acceptable indoor air quality might not be achieved in all buildings meeting the requirements of this standard for one or more of the following reasons:

- a. Because of the diversity of sources and contaminants in indoor air
- b. Because of the many other factors that might affect occupant perception and acceptance of indoor air quality, such as air temperature, humidity, noise, lighting, and psychological stress
- c. Because of the range of susceptibility in the population
- d. Because outdoor air brought into the building might be unacceptable or might not be adequately cleaned

## **G2. COMPLIANCE**

~~Demonstrating that acceptable IAQ has been achieved, such as by measuring contaminant concentrations or surveying occupants, would not be required by this standard except where required by the IAQ Procedure.~~

**The following section provides suggested model code language.**

### **APPLICATION AND COMPLIANCE**

#### *Application*

BSR/ASHRAE Addendum h to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

***New Buildings.*** All sections and normative appendices apply to new buildings falling within the scope of this standard.

## **Existing Buildings**

***Additions to Existing Buildings.*** All additions to existing buildings within the scope of this standard shall meet the requirements of all sections and normative appendices.

***Exception:*** When an existing ventilation system is extended to serve an addition, the existing system components, such as fans and cooling and heating equipment, need not meet the requirements of this standard. However, the extended existing system must remain in compliance with ventilation codes and standards that were in effect at the time it was permitted for construction.

***Repairs.*** Repairing (making operational) existing equipment or other building components shall be allowed without requiring the building or any of its components to comply with this standard.

***Replacement.*** Any component of a building that is removed and replaced shall meet the applicable requirements of Section 5, "Systems and Equipment," of this standard for that component. Unaltered components are not required to be brought into compliance except as required due to a change in use.

***Exception:*** Replacement of a building component or individual piece of equipment with a component of like size and kind, provided that all requirements of codes effective at the time of original system design and installation are met. For example, replacement of an air-conditioning unit with one of similar capacity would not require that the ventilation rate requirements and other requirements of this standard be met.

***Substantial Alterations.*** If a building is substantially altered, all sections and normative appendices of this standard shall be met as if the building were new. A building shall be considered substantially altered if the cost of the revisions exceeds 50% of the building's fair market value, excluding the cost of compliance with all sections and normative appendices of this standard.

***Change in Use.*** If the space application category as listed in Table 2 changes, such as from office to retail, the minimum ventilation rates required by Section 6, "Procedures," shall be met for that space.

## **Compliance**

*Demonstrating that acceptable IAQ has been achieved, such as by measuring contaminant concentrations or surveying occupants, is not required by this standard except where required by the IAQ Procedure.*



**BSR/ASHRAE Addendum j  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

**Proposed Addendum j to  
Standard 62.1-2016, Ventilation for  
Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum j to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*Section 4 refers to information from USEPA. This information changes so this proposed addendum updates the informative notes in this section.*

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

## Addendum j to 62.1-2016

---

***Revise the informative notes in Section 4 as shown below. The remainder of Section 4 is unchanged.***

### 4. OUTDOOR AIR QUALITY

Outdoor air quality shall be investigated in accordance with Sections 4.1 and 4.2 prior to completion of ventilation system design. The results of this investigation shall be documented in accordance with Section 4.3.

**4.1 Regional Air Quality.** The status of compliance with national ambient air quality standards shall be determined for the geographic area of the building site.

**4.1.1** In the United States, compliance status shall be either in “attainment” or “nonattainment” with the *National Ambient Air Quality Standards* (NAAQS)<sup>1</sup>. In the United States, areas with no U.S. Environmental Protection Agency (USEPA) compliance status designation shall be considered “attainment” areas.

#### ***Informative Notes:***

1. The NAAQS are shown in Table ~~F~~-1 of Informative Appendix ~~F~~.
2. The link to the US EPA listing of nonattainment areas is <https://www.epa.gov/green-book>.
3. Air quality data collected at outdoor monitors across the US can be found at: <https://www.epa.gov/outdoor-air-quality-data>.
4. Internet links to the detailed information on the ambient air quality standards and contaminant levels for other select counties and regions can be found in Informative Appendix F.

**4.2 Local Air Quality.** An observational survey of the building site and its immediate surroundings shall be conducted during hours the building is expected to be normally occupied to identify local contaminants from surrounding facilities that will be of concern if allowed to enter the building.

**4.3 Documentation.** Documentation of the outdoor air quality investigation shall be reviewed with building owners or their representative and shall include the following as a minimum:

- a. Regional air quality compliance status

***Informative Note to 4.3(a):*** Regional outdoor air quality compliance status for the United States is available from USEPA located at [www.epa.gov](http://www.epa.gov).

BSR/ASHRAE Addendum j to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

b. Local survey information

1. Date of observations
2. Time of observations
3. Site description
4. Description of facilities on site and on adjoining properties
5. Observation of odors or irritants
6. Observation of visible plumes or visible air contaminants
7. Description of sources of vehicle exhaust on site and on adjoining properties
8. Identification of potential contaminant sources on the site and from adjoining properties, including any that operate only seasonally

c. Conclusion regarding the acceptability of outdoor air quality and the information supporting the conclusion



**BSR/ASHRAE Addendum k  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum k to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum k to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*The current standard contains requirements for filtration of ozone from outdoor air under certain conditions. This proposed addendum changes the requirement to be consistent with current EPA ambient air quality standards. Filtration will only be required in areas that are Serious, Severe 15, Severe 17, or extreme in the USA. Informative Appendix F is previously modified to remove the map. For other parts of the world the criteria for determining compliance is spelled out in the standard.*

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

## Addendum k to 62.1-2016

---

### **Modify Section 6.2.1.3 as follows**

**6.2.1.3 Ozone.** Air-cleaning devices for ozone shall be provided when the most recent three-year average annual fourth-highest daily maximum eight-hour average ozone concentration exceeds 0.100 ppm (195  $\mu\text{g}/\text{m}^3$ ) ~~0.107 ppm (209  $\mu\text{g}/\text{m}^3$ ).~~

Such air-cleaning devices shall have a volumetric ozone removal efficiency of not less than 40% where installed, operated, and maintained in accordance with manufacturer recommendations and shall be approved by the authority having jurisdiction. Such devices shall be operated where the outdoor ozone levels are expected to exceed 0.100 ppm (195  $\mu\text{g}/\text{m}^3$ ) ~~0.107 ppm (209  $\mu\text{g}/\text{m}^3$ ).~~

**Exceptions:** Air cleaning for ozone shall not be required where

1. the system design outdoor air intake flow is 1.5 ach or less,
2. controls are provided that sense outdoor ozone level and reduce intake airflow to 1.5 ach or less while complying with the outdoor airflow requirements of Section 6, or
3. outdoor air is brought into the building and heated by direct-fired makeup air units.

~~**Informative Note:** See Informative Appendix F for a map of United States locations exceeding the most recent three year average annual fourth highest daily maximum eight hour average ozone concentration of 0.107 ppm (209  $\mu\text{g}/\text{m}^3$ ).~~

**Informative Note:** In the USA, a most recent three-year average annual fourth-highest daily maximum eight-hour average ozone concentration exceeding 0.100 ppm (195  $\mu\text{g}/\text{m}^3$ ) equates to an EPA 8-hour Ozone (2008) classification of Serious or higher (Severe 15, Severe 17 or Extreme).





**BSR/ASHRAE Addendum m  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum m to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum m to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*The current standard contains requirements for filtration of particles from outdoor air under certain conditions. It also requires filtration upstream of wetted surfaces. This proposed addendum adds ISO ratings as an option to the existing MERV requirements and makes some modifications for consistency.*

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

## Addendum m to 62.1-2016

---

### *Modify Section 5.8 as follows:*

**5.8 Particulate Matter Removal.** Particulate matter filters or air cleaners having

- a.        a minimum efficiency reporting value (MERV) of not less than 8 when rated in accordance with ANSI/ASHRAE Standard 52.2<sup>12</sup>
- b.        or a minimum efficiency of ISO ePM10 when rated in accordance with ISO 16890<sup>X</sup>

shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to an occupiable space.

### *Modify Sections 6.2.1.1 and 6.2.1.2 as follows:*

**6.2.1.1 Particulate Matter Smaller than 10 Micrometers (PM10).** In buildings located in an area where the national standard or guideline for PM10<sup>1</sup> is exceeded, particle filters or air-cleaning devices shall be provided to clean the outdoor air at any location prior to its introduction to occupied spaces. Particulate matter filters or air cleaners shall have

- a.         a minimum efficiency reporting value (MERV) of not less than ~~6~~8 where rated in accordance with ASHRAE Standard 52.2<sup>12</sup>
- b.        or a minimum efficiency of ISO ePM10 when rated in accordance with ISO 16890<sup>X</sup>

**Informative Note:** See Informative Appendix F for resources regarding selected PM10 national standards and guidelines.

**6.2.1.2 Particulate Matter Smaller than 2.5 Micrometers (PM2.5).** In buildings located in an area where the national standard or guideline for PM2.5<sup>1</sup> is exceeded, particle filters or air-cleaning devices shall be provided to clean the outdoor air at any location prior to its introduction to occupied spaces. Particulate matter filters or air cleaners shall have

- a.         a minimum efficiency reporting value (MERV) of not less than 11 where rated in accordance with ASHRAE Standard 52.2<sup>12</sup>
- b.        or a minimum efficiency of ISO ePM2,5 when rated in accordance with ISO 16890<sup>X</sup>

BSR/ASHRAE Addendum m to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

**Informative Note:** See Informative Appendix F for resources regarding selected PM2.5 national standards and guidelines.

***Add new reference to Section 9 as shown below. The remainder of Section 9 is unchanged.***

## **9. REFERENCES**

**X. ISO 16890-2016 Air Filters for General Ventilation.**



**BSR/ASHRAE Addendum n  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum n to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum n to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*Standard 62.1 does not currently have any ventilation air requirements for animal facilities such as animal shelters, veterinary offices and veterinary hospitals. The 1973 version of the standard provided values for these spaces but these values were removed in the 1989 version and ever since. Due to various contaminants sources present in these facilities mainly animal waste decomposition that could result in ammonia generation, occupant working or visiting these faculties may be subjected to harmful concentration of contaminants without proper ventilation. This proposed addendum adds requirements for those spaces. Ammonia is added to compounds of common interest in a different addenda.*

*Similarly, dental hygiene spaces are not covered in any ASHRAE Standard.*

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

## Addendum n to 62.1-2016

**Add the following space to Table 6.2.2.1 as shown below. The remainder of Table 6.2.2.1 is unchanged.**

**Table 6.2.2.1 Minimum Ventilation Rates in Breathing Zone**

(Table 6.2.2.1 shall be used in conjunction with the accompanying notes.)

Occupancy Category	People Outdoor Air Rate $R_p$		Area Outdoor Air Rate $R_a$		Notes	Default Values			Air Class
						Occupant Density (see Note 4)	Combined Outdoor Air Rate (see Note 5)		
	cfm/person	L/s•person	cfm/ft <sup>2</sup>	L/s•m <sup>2</sup>		#/1000 ft <sup>2</sup> or #/100 m <sup>2</sup>	cfm/person	L/s•person	

### Animal Facilities

<u>Small animal cage room (static cages)</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Small animal cage room(ventilated cages)</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Large animal holding room</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal imaging (MRI/CT/PET)</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal operating rooms</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal post-operative recovery room</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal preparation rooms</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>		<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>

BSR/ASHRAE Addendum n to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

<u>Animal surgery scrub</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>	<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Necropsy</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>	<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal procedure room</u>	<u>10</u>	<u>5</u>	<u>0.18</u>	<u>0.9</u>	<u>20</u>	<u>0.51</u>	<u>2.53</u>	<u>3</u>
<u>Animal exam room</u> (Veterinary office)	<u>10</u>	<u>5</u>	<u>0.12</u>	<u>0.6</u>	<u>20</u>	<u>0.43</u>	<u>2.13</u>	<u>2</u>

**Modify Table 6.5 as shown below. The remainder of Table 6.5 is unchanged.**

**TABLE 6.5 Minimum Exhaust Rates**

<b>Occupancy Category</b>	<b>Exhaust Rate, cfm/unit</b>	<b>Exhaust Rate, cfm/ft<sup>2</sup></b>	<b>Notes</b>	<b>Exhaust Rate, L/s·unit</b>	<b>Exhaust Rate, L/s·m<sup>2</sup></b>	<b>Air Class</b>
<u>Small animal cage room (static cages)</u>	<u>==</u>	<u>2.25</u>		<u>==</u>	<u>11.3</u>	<u>3</u>
<u>Small animal cage room (ventilated cages)</u>	<u>==</u>	<u>1.50</u>		<u>==</u>	<u>7.5</u>	<u>3</u>
<u>Large animal holding room</u>	<u>==</u>	<u>2.25</u>		<u>==</u>	<u>11.3</u>	<u>3</u>
<u>Animal imaging (MRI/CT/PET)</u>	<u>==</u>	<u>0.90</u>		<u>==</u>	<u>4.5</u>	<u>3</u>
<u>Animal operating rooms</u>	<u>==</u>	<u>3.00</u>		<u>==</u>	<u>15</u>	<u>3</u>
<u>Animal post-operative recovery room</u>	<u>==</u>	<u>1.50</u>		<u>==</u>	<u>7.5</u>	<u>3</u>
<u>Animal preparation rooms</u>	<u>==</u>	<u>1.50</u>		<u>==</u>	<u>7.5</u>	<u>3</u>
<u>Animal surgery scrub</u>	<u>==</u>	<u>1.50</u>		<u>==</u>	<u>7.5</u>	<u>3</u>
<u>Necropsy</u>	<u>==</u>	<u>2.25</u>		<u>==</u>	<u>11.3</u>	<u>3</u>
<u>Animal procedure room</u>	<u>==</u>	<u>2.25</u>		<u>==</u>	<u>11.3</u>	<u>3</u>

**Add new Section 6.2.2.1.3 as follows:**

**6.2.2.1.3 Animal Facilities.** Animal Facilities which have completed a risk evaluation performed by the Environmental Health and Safety professional responsible to the owner or to the owner's designee are not required to comply with the rates in Table 6.2.2.1.



**BSR/ASHRAE Addendum o  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum o to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum o to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*The current standard contains requirements for redesignation that are based on informative text. This proposed addendum clarifies and refers to mandatory requirements for class 3 and 4 air.*

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

## Addendum o to 62.1-2016

---

### *Modify Section 5.16.2.1 as follows*

**5.16.2.1 Air Cleaning.** If air leaving a space or location passes through an air-cleaning system, redesignation of the cleaned air to a cleaner classification shall be permitted per the following requirements. ~~where based on the subjective criteria in the informative note for Section 5.16.1 and where approved by the authority having jurisdiction.~~

- a. Class 2 air - where based on the subjective criteria in the informative note for Section 5.16.1 and where approved by the authority having jurisdiction.
- b. Class 3 and Class 4 air - when all requirements of Sections 6.3.1 through 6.3.4 are followed.





**BSR/ASHRAE Addendum q  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum q to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum q to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*Section 5 and 7 changes are intended to better satisfy the objectives of the requirements already included in the standard and improve the language describing them. The changes differentiate the objectives fostering anticipation for the needs of system measurements with appropriate designs and those of airflow verification.*

*Section 5.1.1 solicits design attention for duct layout conditions and anything that contributes to making field measurement difficult, prone to high error rates or sometimes impossible to perform. The new language in 5.3.2 is intended to provide a generalized and simpler statement of this requirement's objective and avoid the expression of limited alternatives in subsection items a. through c. yet provide designers and building owners the same flexibility and design choices.*

*Modification of 7.2.2 addresses the operational requirements reflected elsewhere in the standard. "Under any load or dynamic reset condition" must also be considered when verifying the capability of the ventilation system to function as required, particularly at the point of operation where minimum outdoor air control is the most difficult. The new requirement identifies that direct measurement is the only method allowed to verify intake flow rates.*

*By their exclusion, temperature ratios and differential airflow calculations require many assumptions to provide reliable airflow estimates. This new statement expresses the recommendations expressed in ASHRAE research (RP-980), ASHRAE Standard 111 and all national TAB guidelines that caution or conditional use of indirect means of verification. The conclusions of the California Energy Commission's research, expressed in California Title 24 regulations, explicitly ban the use of indirect means of intake airflow verification for code compliance to ventilation minimums.*

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

## Addendum q to 62.1-2016

---

### ***Modify 5.1.1 as follows:***

**5.1.1 Designing for Air Balancing.** ~~The v~~Ventilation air distribution systems shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow as required by Section 6 under any load condition. that allow field verification of outdoor air intake flow ( $V_{OI}$ ) during operation.

**5.1.1.1 Designing for Varying Loads and Operating Conditions.** The ventilation air distribution system for VAV and multispeed CV applications shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow as required by Section 6 under any load condition or dynamic reset condition.

BSR/ASHRAE Addendum q to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

**Modify 5.3.2 as follows:**

**5.3.2** Systems with fans supplying variable primary air ( $V_{ps}$ ), ~~including single zone VAV and multiple zone recirculating VAV systems,~~ shall be provided ~~with one or more of the following~~ with any combination of control equipment, methods or devices to maintain no less than the outdoor air intake flow ( $V_{ot}$ ) required for compliance with 5.3.1.

- ~~a. Outdoor air intake, return air dampers, or a combination of the two that modulates to maintain not less than the outdoor air intake flow ( $V_{ot}$ )~~
- ~~b. Outdoor air injection fans that modulate to maintain not less than the outdoor air intake flow ( $V_{ot}$ )~~
- ~~c. Other means of ensuring compliance with Section 5.3.1~~

**Modify 7.2.2 as follows:**

**7.2.2 Air Balancing and Verification of Outdoor Air Performance.** Ventilation systems shall be balanced in accordance with ASHRAE Standard 111<sup>15</sup> or other applicable national standards, ~~for measuring and balancing airflow~~ so as to verify conformance with the total outdoor airflow requirements of this standard ( $V_{ot}$ ). Conformance shall be confirmed by direct measurement at the minimum design airflow rate(s) during normal operation.



**BSR/ASHRAE Addendum r  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum r to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum r to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum makes several changes in Section 5. For outdoor air intakes, the alternate methods of calculation are specified in Normative Appendix B and the exception is eliminated. Requirements that were in the notes of Table 5.5.1 are relocated to the body of the standard. If condensation is to be managed (Exception 5.14.2), then a management plan must be developed. If “local practice” demonstrates condensation does not grow mold, it can be included in the management plan. Table 5.16.1 Airstreams or Sources is relocated to Section 6 where all other air class information resides.*

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

## Addendum r to 62.1-2016

---

### ***Modify Section 5.5.1 as follows:***

**5.5.1 Location.** Outdoor air intakes (including openings that are required as part of a natural ventilation system) shall be located such that the shortest distance from the intake to any specific potential outdoor contaminant source listed in Table 5.5.1 shall be equal to or greater than:

- a. the separation distance in Table 5.5.1, or
- b. the calculation methods in Normative Appendix B

and shall comply with all other requirements of this section.

~~**Exception:** Other separation distances shall be permitted, provided it can be shown analytically that an equivalent or lesser rate of introduction of contaminants from outdoor sources will be attained.~~

### ***Add Sections to 5.5.1 as follows:***

**5.5.1.1 Exhaust/Relief Outlets.** Separation criteria for class 2 and class 3 exhaust/relief outlets applies to the distance from the outdoor air intakes for one ventilation system to the exhaust outlets and relief outlets for any other ventilation system.

**5.5.1.2 Fuel Burning Equipment.** The minimum distances relative to fuel-fired appliances shall be as required by ANSI Z223.1/NFPA 54<sup>7</sup> for fuel gas burning appliances and equipment, NFPA 31<sup>8</sup> for oil burning appliances and equipment, and NFPA 211<sup>9</sup> for other combustion appliances and equipment

**5.5.1.3. Roof, Landscaped Grade, or Another Surface Directly Below Intake.** Where snow accumulation is expected, the surface of the snow at the expected average snow depth shall be considered to be a surface directly below an intake.

BSR/ASHRAE Addendum r to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

**Exception:** The minimum separation distance in Table 5.5.1 shall not apply where outdoor surfaces below the air intake are sloped more than 45 degrees from horizontal or where such surfaces are less than 1 in. (30 mm) in width.

**Modify Table 5.5.1 as follows:**

**TABLE 5.5.1 Air Intake Minimum Separation Distance**

Object	Minimum Distance, ft (m)
Class 2 air exhaust/relief outlet <sup>a</sup>	10 (3)
Class 3 air exhaust/relief outlet <sup>a</sup>	15 (5)
Class 4 air exhaust/relief outlet <sup>b</sup>	30 (10)
Plumbing vents terminating less than 3 ft (1 m) above the level of the outdoor air intake	10 (3)
Plumbing vents terminating at least 3 ft (1 m) above the level of the outdoor air intake	3 (1)
Vents, chimneys, and flues from combustion appliances and equipment <sup>e</sup>	15 (5)
Garage entry, automobile loading area, or drive-in queue <sup>d</sup>	15 (5)
Truck loading area or dock, bus parking/idling area <sup>d</sup>	25 (7.5)
Driveway, street, or parking place <sup>d</sup>	5 (1.5)
Thoroughfare with high traffic volume	25 (7.5)
Roof, landscaped grade, or other surface directly below intake <sup>e,f</sup>	1 (0.30)
Garbage storage/pick-up area, dumpsters	15 (5)
Cooling tower intake or basin	15 (5)
Cooling tower exhaust	25 (7.5)

a. This requirement applies to the distance from the outdoor air intakes for one ventilation system to the exhaust outlets and relief outlets for any other ventilation system.

b. Minimum distance listed does not apply to laboratory fume hood exhaust air outlets. Separation criteria for fume hood exhaust shall be in compliance with ANSI/AIHA Z9.5<sup>6</sup>. Informative Appendix J contains sources of additional information on separation criteria. These include the *ACGIH Industrial Ventilation Manual*<sup>11</sup>, *ASHRAE Handbook—HVAC Applications*<sup>12</sup>, *ASHRAE Laboratory Design Guide*<sup>13</sup>, and NSF/ANSI 49<sup>14</sup>.

c. The minimum distances relative to fuel-fired appliances shall be as required by ANSI Z223.1/NFPA 54<sup>7</sup> for fuel gas burning appliances and equipment, NFPA 31<sup>8</sup> for oil burning appliances and equipment, and NFPA 211<sup>9</sup> for other combustion appliances and equipment.

d. Distance measured to closest place that vehicle exhaust is likely to be located

e. The minimum separation distance shall not apply where outdoor surfaces below the air intake are sloped more than 45 degrees from horizontal or where such surfaces are less than 1 in. (30 mm) in width.

f. Where snow accumulation is expected, the surface of the snow at the expected average snow depth shall be considered to be a surface directly below an intake.

**Modify Section 5.14.2 as follows:**

**5.14.2 Condensation on Interior Surfaces.** Pipes, ducts, and other surfaces within the building whose surface temperatures are expected to fall below the surrounding dew-point temperature shall be insulated. The insulation system thermal resistance and material characteristics shall prevent condensate from forming on the exposed surface and within the insulating material.

**Exceptions:**

1. Where condensate will wet only surfaces that will be managed to prevent or control mold growth. A management plan must be submitted along with the design specifying design assumptions and limits of the plan. The plan must be provided to the owner.
2. ~~Where local practice has demonstrated that condensation does not result in mold growth.~~

BSR/ASHRAE Addendum r to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

**Modify Section 5.16.1 as follows:**

**5.16.1 Classification.** Air (return, transfer, or exhaust air) leaving each space or location shall be designated at an expected air-quality classification not less than that shown in Tables ~~5.16.1~~, 6.2.2.1, or 6.5, or as approved by the authority having jurisdiction. Air leaving spaces or locations that are not listed in Table 5.16.1, 6.2.2.1, or 6.5 shall be designated with the same classification as air from the most similar space or location listed in terms of occupant activities and building construction.

**Exception:** Air from spaces where ETS is present. (Classification of air from spaces where ETS is present is not addressed. Spaces that are expected to include ETS do not have a classification listed in Table 6.2.2.1.)

**Informative Note:** Classifications in Tables ~~5.16.1~~, 6.2.2.1, and ~~6.5~~ 6.5.1 and 6.5.2 are based on relative contaminant concentration using the following subjective criteria:

**Delete Table 5.16.1 and add Table 6.5.2 as shown below.**

**TABLE 5.16.1 Airstreams or Sources**

<b>Description</b>	<b>Air Class</b>
Diazo printing equipment discharge	4
Commercial kitchen grease hoods	4
Commercial kitchen hoods other than grease	3
Laboratory hoods	4 <sup>a</sup>
Residential kitchen hoods	3
Hydraulic elevator machine room	2

a. Air Class 4 unless determined otherwise by the Environmental Health and Safety professional responsible to the owner or to the owner's designee

**TABLE 6.5.2 Airstreams or Sources**

<b>Description</b>	<b>Air Class</b>
Diazo printing equipment discharge	4
Commercial kitchen grease hoods	4
Commercial kitchen hoods other than grease	3
Laboratory hoods	4
Residential kitchen hoods in transient occupancy	3
Hydraulic elevator machine room	2
Paint spray booths	4
Refrigerating machinery rooms	3



**BSR/ASHRAE Addendum t  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum t to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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



BSR/ASHRAE Addendum t to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum adds a new informative appendix which is a companion to the changes to the Natural Ventilation Procedure. It provides information for application of the new procedure.*

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

## Addendum t to 62.1-2016

---

*Add a new Informative Appendix L as shown below.*

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

### **INFORMATIVE APPENDIX L** **INFORMATION ON NATURAL VENTILATION**

**L.1 Outdoor Air Quality Data.** Outdoor air quality data may be considered valid if it is demonstrated that the data is both physically representative and spatially representative. Data is physically representative if it accurately reflects the air quality conditions at the monitoring station from which it is derived. Data is spatially representative if the data is collected from a monitoring site that is informative of the air quality conditions at the proposed project location. Data is considered physically representative if it is either: i) obtained from reports of historical levels of air pollutants published by the relevant local, regional, or federal entity with statutory responsibility for collecting and reporting air quality information in accordance with applicable air quality regulations, or ii) obtained from an on-site monitoring campaign that is verifiably comparable to local, regional, or federal guidelines and methods for demonstration of compliance with applicable air quality regulations. Data may be considered spatially representative if either: iii) the available data is the same as that used by the entity charged with demonstrating regulatory compliance for the geographic region that includes the proposed project location, or iv) the available data is derived from an on-site monitoring campaign that also meets the requirement stated by criteria ii of this annotation.

**L.2 Natural Ventilation Rate.** When calculating the ventilation rate, specific path(s) of the intended airflow passage must first be determined as well as flow directions. There are two driving forces for natural ventilation: buoyancy and wind. The two driving forces can work cooperatively or competitively based on the environmental conditions of wind speed, direction, indoor/outdoor air/surface temperatures, as well as the intentional airflow path and mechanisms.

1. In the case of an engineered NV system that results in multiple flow scenarios, each must be examined and considered separately.

BSR/ASHRAE Addendum t to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

2. Specific pressure-based calculation of natural ventilation flow rate are documented in ASHRAE Handbook Fundamentals:
  - a. Buoyancy induced airflow is summarized in chapter 16 and can be calculated following eq 38.
  - b. Wind driven airflow is summarized in chapter 16 and can be calculated following eq 37.
  - c. The overall pressure based (both wind and stack effect driving force converted to resulting pressure difference between openings can found in eq 36

For obtaining wind-driven pressure, several methods are available:

1. ASHRAE Fundamentals Handbook Chapter 24 provide a method to convert wind speed and direction into pressure coefficients that can be used to determine wind-driven pressure
2. If the building has undergone wind tunnel test for structural stress, the same test can provide detailed pressure coefficients.
3. Outdoor airflow simulation (such as computational fluid dynamics based simulation) can be used to obtain the specific flow condition at the intended openings

For intended openings that are large, such as open atrium or open balcony and/or when the flow path is not well defined such as when only single or single side openings are available, the pressure based method can be invalid, and Outdoor-indoor linked simulation should be used.

**L.3 Control and Accessibility (Mixed Mode Ventilation).** Mixed mode ventilation is a hybrid system used to maintain indoor air quality and internal thermal temperatures using both natural and mechanical ventilation systems.

- Natural ventilation – refers to natural forces, such as wind and thermal buoyancy, used to ventilate and cool spaces.
- Mechanical ventilation – refers to mechanical systems using fans used to supply and exhaust air from a space, provide humidity control and if required possible contaminant filtration.

Mixed mode ventilation utilizes both systems, with a preference for natural ventilation to reduce costs and carbon footprint.

Mechanical ventilation systems are operated when natural ventilation is less effective at delivering the outdoor air at suitable temperatures, humidity levels and contaminant levels. Mixed mode ventilation can be operated manually or automatically, depending on needs and preferences.

The system utilizes sensors that identify when the natural ventilation system is less effective at cooling, heating or ventilating the spaces and will then switch to the mechanical solution, or manually operated.

When natural forces are available, the system will be operated for natural ventilation.

- Natural ventilation is used during suitable outdoor conditions, securing a minimum use of energy.
- Mechanical ventilation is used when natural ventilation is unsuitable

The indoor climate is ensured all year round with mixed mode ventilation.



**BSR/ASHRAE Addendum v  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

**Proposed Addendum v to  
Standard 62.1-2016, Ventilation for  
Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum adds requirements for alternate calculation methods (current Section c) but does not describe or prescribe a method.*

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

## Addendum v to 62.1-2016

---

***Modify Normative Appendix B as shown below. The remainder of Normative Appendix B is unchanged.***

[...]

### B2. DETERMINING DISTANCE $L$

The minimum separation distance ( $L$ ) shall be determined using one of the following three approaches:

a. **B2.1 Simple Method.** A value of  $L$  in Table B2-1 shall be used.

b. **B2.2 Velocity Method.** The value of  $L$  shall be determined using Equation B2-1 or B2-2.

$$L = 0.09 \times \sqrt{Q} \times (\sqrt{DF} - U/400) \text{ in feet} \quad (\text{I-P}) \text{ (B2-1)}$$

$$L = 0.04 \times \sqrt{Q} \times (\sqrt{DF} - U/2) \text{ in metres} \quad (\text{SI}) \text{ (B2-2)}$$

where

$Q$  = exhaust airflow rate, cfm (L/s). For gravity vents, such as plumbing vents, use an exhaust rate of 150 cfm (75 L/s). For flue vents from fuel-burning appliances, assume a value of 250 cfm per million Btu/h (0.43 L/s per kW) of combustion input (or obtain actual rates from the combustion appliance manufacturer.

$U$  = exhaust air discharge velocity, fpm (m/s). As shown in Figure B2-1,  $U$  shall be determined using Table B2-3.

$DF$  = dilution factor, which is the ratio of outdoor airflow to entrained exhaust airflow in the outdoor air intake. The minimum dilution factor shall be determined as a function of exhaust air class in Table B2-2.

For exhaust air composed of more than one class of air, the dilution factor shall be determined by averaging the dilution factors by the volume fraction of each class using Equation B2-3:

$$DF = \frac{\sum(DF_i \times Q_i)}{\sum Q_i} \quad (\text{B2-3})$$

where

BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

$DF_i$  = dilution factor from Table B2-2 for class  $i$  air.  
 $Q_i$  = volumetric flow rate of class  $i$  air in the exhaust airstream.

e. ~~When the above options do not represent the proposed design, then an exceptional calculation method shall be used to calculate the value of  $L$  if approved by the authority having jurisdiction. It must be shown that the proposed design will result in dilution factors that are not less than those specified in Table B2-2.~~

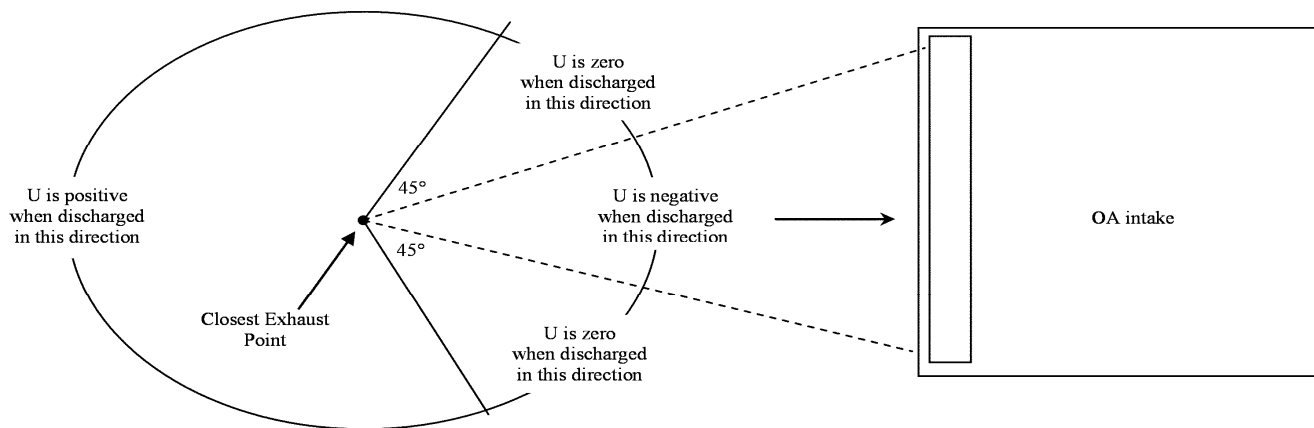
**TABLE B2-1 Minimum Separation Distance**

Exhaust Air Class (See Section 5.16)	Separation Distance, $L$ , ft (m)
Significant contaminant or odor intensity (Class 3)	15 (5)
Noxious or dangerous particles (Class 4)	30 (10)

**TABLE B2-2 Minimum Dilution Factors**

Exhaust Air Class (See Section 5.16)	Dilution Factor (DF)
Significant contaminant or odor intensity (Class 3)	15
Noxious or dangerous particles (Class 4)	50*

\*Does not apply to fume hood exhaust. See Section B1.1.



**FIGURE B2-1 Exhaust air discharge velocity ( $U$ ).**

**TABLE B2-3 Exhaust Air Discharge Velocity**

Exhaust Direction/Configuration	Exhaust Air Discharge Velocity ( $U$ ) Modifier
Exhaust is directed away from the outdoor air intake at an angle that is greater than 45 degrees from the direction of a line drawn from the closest exhaust point to the edge of the intake	$U$ given a positive value
Exhaust is directed toward the intake bounded by lines drawn from the closest exhaust point to the edge of the intake	$U$ given a negative value

BSR/ASHRAE Addendum v to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

Exhaust is directed at an angle between the two above cases	$U$ is zero
Vents from gravity (atmospheric) fuel-fired appliances, plumbing vents, and other nonpowered exhausts, or if the exhaust discharge is covered by a cap or other device that dissipates the exhaust airstream	$U$ is zero
Hot gas exhausts such as combustion products if the exhaust stream is aimed directly upward and unimpeded by devices such as flue caps or louvers	Add 500 fpm (2.5 m/s) upward velocity to $U$

### **B2.3 Concentration Method.**

Determine the acceptable concentration for health ( $C_{health}$ ) and odor ( $C_{odor}$ ) for each emitted chemical, compound or mixture. At a minimum evaluate compounds of common interest and corresponding mixtures listed in Tables 6.2.3.1 and 6.2.3.2.

Design the exhaust and intake systems such that the maximum concentration at the intake ( $C_{max}$ ) is less than the acceptable concentrations of all evaluated compounds and mixtures.

$$\underline{C_{max} < C_{health}} \quad (B2.3.1)$$

$$\underline{C_{max} < C_{odor}} \quad (B2.3.2)$$

At a minimum, determination of  $C_{max}$  shall consider wind speed, wind direction, exhaust exit velocity and momentum, geometry of building and adjacent structures, and architectural screens. Wind tunnel modeling is an acceptable design method.



**BSR/ASHRAE Addendum w  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum w to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum w to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*Standard 62.1-2016 scope states: Additional requirements for laboratory, industrial, health care, and other spaces may be dictated by workplace and other standards, as well as by the processes occurring within the space. However, the additional requirements for laboratories is not specified. 62.1 contains minimum requirements for laboratories but more complex laboratories should be designed with a different approach that is contained in ANSI Z9.5 Laboratory Ventilation. This proposed addendum recognizes this approach as valid in complying with ventilation and exhaust requirements of 62.1.*

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

## Addendum w to 62.1-2016

---

**Add a new Section 5.5.1.4 as follows:**

**5.5.1.4 Laboratory Exhaust.** Separation criteria for fume hood exhaust shall be in compliance with ANSI/AIHA Z9.5<sup>6</sup>.

**Add a new Section 6.2.2.1.1.2 as follows:**

**6.2.2.1.1.2 Laboratories.** Laboratory spaces that comply with all requirements of ANSI/AIHA Z9.5<sup>6</sup> are not required to comply with the rates in Table 6.2.2.1.

**Add a new exception in Section 6.5.1 as follows:**

**6.5.1 Prescriptive Compliance Path.** The design exhaust airflow shall be determined in accordance with the requirements in Table 6.5.1 and 6.5.2.

### **Exception:**

1. Laboratory spaces that comply with all requirements of ANSI/AIHA Z9.5<sup>6</sup>.





**BSR/ASHRAE Addendum y  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

# **Proposed Addendum y to Standard 62.1-2016, Ventilation for Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum y to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*Since the original publication of Standard 62.1, ASHRAE published Standard 188-2015 Legionellosis: Risk Management for Building Water Systems. This proposed addendum requires advising the owner of the basic requirements of Standard 188.*

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

## Addendum y to 62.1-2016

---

**Add new Section 8.2.1 as follows**

**8.2.1 Water Management Program.** Owner shall be advised in writing that ANSI/ASHRAE Standard 188<sup>X</sup> requires that a Water Management Program shall be provided for the following building water systems and elements:

- a. open and closed-circuit cooling towers or evaporative condensers that provide cooling and/or refrigeration for the HVAC&R system or other systems or devices in the building, or
- b. whirlpools or spas either in the building or on the site, or
- c. ornamental fountains, misters, atomizers, air washes, humidifiers or other non-potable water systems or devices that release water aerosols in the building or on the site;

and also determine whether it is characterized by one or more of the following factors that relate to legionellosis:

- a. it includes multiple housing units with one or more centralized potable water heater systems,
- b. it is more than 10 stories high (including any levels that are below grade),
- c. it is a healthcare facility where patient stays exceed 24 hours,
- d. it is a building containing one or more areas for the purpose of housing or treating occupants receiving treatment for burns, chemotherapy for cancer, or solid organ transplantation or bone marrow transplantation,
- e. it is a building containing one or more areas for the purpose of housing or treating occupants that are immunocompromised, at-risk, are taking drugs that weaken the immune system, have renal disease, have diabetes or have chronic lung disease, or
- f. it is a building identified by the owner or designee as being for the purpose of housing occupants over the age of 65 years.

**Add new reference to Section 9 as shown below. The remainder of Section 9 is unchanged.**

## 9. References

X. ANSI/ASHRAE Standard 188-2015, Legionellosis: Risk Management for Building Water Systems. Atlanta: ASHRAE.



**BSR/ASHRAE Addendum z  
to ANSI/ASHRAE Standard 62.1-2016**

**Public Review Draft**

**Proposed Addendum z to  
Standard 62.1-2016, Ventilation for  
Acceptable Indoor Air Quality**

**First Public Review (February 2016)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum z to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

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

## FOREWORD

*The default values per person in Table 6.2.2.1 do not contain any adjustments for system ventilation efficiency ( $E_v$ ) and in many cases, are taken out of context. These values are deleted in proposed Addendum s. This proposed addendum provides an informative table with a rate per unit area that incorporates the  $E_v$  used in the simplified procedure. This results in a more accurate first-pass estimate of ventilation required at the outdoor air intake for many systems.*

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

## Addendum z to 62.1-2016

---

**Add a new Informative Appendix N as follows:**

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

### **Informative Appendix N** **Ventilation Rate Check Table**

**N.1 This table is not for design purposes. It is intended to provide check values. Default rate per unit area in Table N.1 is based upon a multiple zone system with default occupancy and default  $E_v$  that equals 0.75. This is the default  $E_v$  in the simplified rate when  $D > 0.60$ .**

**TABLE N.1 Check Table for VRP**

<b><u>Occupancy Category</u></b>	<b><u>Combined Outdoor Air Rate (<math>R_c</math>)</u></b>	
	<b><u>cfm/ sf</u></b>	<b><u>L/s· m<sup>2</sup></u></b>
<b><u>Correctional Facilities</u></b>		
Cell	0.33	1.63
Dayroom	0.28	1.40
Guard stations	0.18	0.90
Booking/waiting	0.58	2.93
<b><u>Educational Facilities</u></b>		

BSR/ASHRAE Addendum z to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

<u>Daycare (through age 4)</u>	<u>0.57</u>	<u>2.87</u>
<u>Daycare sickroom</u>	<u>0.57</u>	<u>2.87</u>
<u>Classrooms (ages 5–8)</u>	<u>0.49</u>	<u>2.47</u>
<u>Classrooms (age 9 plus)</u>	<u>0.63</u>	<u>3.13</u>
<u>Lecture classroom</u>	<u>0.73</u>	<u>3.69</u>
<u>Lecture hall (fixed seats)</u>	<u>1.58</u>	<u>8.00</u>
<u>Art classroom</u>	<u>0.51</u>	<u>2.53</u>
<u>Science laboratories</u>	<u>0.57</u>	<u>2.87</u>
<u>University/college laboratories</u>	<u>0.57</u>	<u>2.87</u>
<u>Wood/metal shop</u>	<u>0.51</u>	<u>2.53</u>
<u>Computer lab</u>	<u>0.49</u>	<u>2.47</u>
<u>Media center</u>	<u>0.49</u>	<u>2.47</u>
<u>Music/theater/dance</u>	<u>0.55</u>	<u>2.73</u>
<u>Multiuse assembly</u>	<u>1.08</u>	<u>5.47</u>
<b><u>Food and Beverage Service</u></b>		
<u>Restaurant dining rooms</u>	<u>0.94</u>	<u>4.75</u>
<u>Cafeteria/fast-food dining</u>	<u>1.24</u>	<u>6.27</u>
<u>Bars, cocktail lounges</u>	<u>1.24</u>	<u>6.27</u>
<u>Kitchen (cooking)</u>	<u>0.36</u>	<u>1.81</u>
<b><u>General</u></b>		
<u>Break rooms</u>	<u>0.25</u>	<u>1.23</u>
<u>Coffee stations</u>	<u>0.21</u>	<u>1.07</u>
<u>Conference/meeting</u>	<u>0.41</u>	<u>2.07</u>
<u>Corridors</u>	<u>0.08</u>	<u>0.40</u>
<u>Occupiable storage rooms for liquids or gels</u>	<u>0.17</u>	<u>0.87</u>
<b><u>Hotels, Motels, Resorts, Dormitories</u></b>		
<u>Bedroom/living room</u>	<u>0.15</u>	<u>0.73</u>
<u>Barracks sleeping areas</u>	<u>0.21</u>	<u>1.07</u>
<u>Laundry rooms, central</u>	<u>0.23</u>	<u>1.13</u>
<u>Laundry rooms within dwelling units</u>	<u>0.23</u>	<u>1.13</u>
<u>Lobbies/prefunction</u>	<u>0.38</u>	<u>1.92</u>
<u>Multipurpose assembly</u>	<u>0.88</u>	<u>4.40</u>
<b><u>Office Buildings</u></b>		
<u>Breakrooms</u>	<u>0.49</u>	<u>2.47</u>
<u>Main entry lobbies</u>	<u>0.15</u>	<u>0.73</u>
<u>Occupiable storage rooms for dry materials</u>	<u>0.09</u>	<u>0.47</u>
<u>Office space</u>	<u>0.11</u>	<u>0.57</u>
<u>Reception areas</u>	<u>0.28</u>	<u>1.40</u>

BSR/ASHRAE Addendum z to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
 First Public Review Draft

<u>Telephone/data entry</u>	<u>0.48</u>	<u>2.40</u>
<b><u>Miscellaneous Spaces</u></b>		
<u>Bank vaults/safe deposit</u>	<u>0.11</u>	<u>0.57</u>
<u>Banks or bank lobbies</u>	<u>0.23</u>	<u>1.16</u>
<u>Computer (not printing)</u>	<u>0.11</u>	<u>0.53</u>
<u>Freezer and refrigerated spaces (&lt;50°F)</u>	<u>0.03</u>	<u>0.13</u>
<u>General manufacturing (excludes heavy industrial and processes using chemicals)</u>	<u>0.33</u>	<u>1.67</u>
<u>Pharmacy (prep. area)</u>	<u>0.31</u>	<u>1.53</u>
<u>Photo studios</u>	<u>0.23</u>	<u>1.13</u>
<u>Shipping/receiving</u>	<u>0.19</u>	<u>0.93</u>
<u>Sorting, packing, light assembly</u>	<u>0.23</u>	<u>1.15</u>
<u>Telephone closets</u>	<u>0.00</u>	<u>0.00</u>
<u>Transportation waiting</u>	<u>1.08</u>	<u>5.47</u>
<u>Warehouses</u>	<u>0.09</u>	<u>0.47</u>
<b><u>Public Assembly Spaces</u></b>		
<u>Auditorium seating area</u>	<u>1.08</u>	<u>5.40</u>
<u>Places of religious worship</u>	<u>0.88</u>	<u>4.40</u>
<u>Courtrooms</u>	<u>0.55</u>	<u>2.73</u>
<u>Legislative chambers</u>	<u>0.41</u>	<u>2.07</u>
<u>Libraries</u>	<u>0.23</u>	<u>1.13</u>
<u>Lobbies</u>	<u>1.08</u>	<u>5.40</u>
<u>Museums (children's)</u>	<u>0.56</u>	<u>2.83</u>
<u>Museums/galleries</u>	<u>0.48</u>	<u>2.43</u>
<b><u>Residential</u></b>		
<u>Dwelling unit</u>	<u>0.10</u>	<u>0.50</u>
<u>Common corridors</u>	<u>0.08</u>	<u>0.40</u>
<b><u>Retail</u></b>		
<u>Sales (except as below)</u>	<u>0.31</u>	<u>1.56</u>
<u>Mall common areas</u>	<u>0.48</u>	<u>2.43</u>
<u>Barbershop</u>	<u>0.33</u>	<u>1.67</u>
<u>Beauty and nail salons</u>	<u>0.83</u>	<u>4.13</u>
<u>Pet shops (animal areas)</u>	<u>0.34</u>	<u>1.71</u>
<u>Supermarket</u>	<u>0.16</u>	<u>0.81</u>
<u>Coin-operated laundries</u>	<u>0.36</u>	<u>1.81</u>
<b><u>Sports and Entertainment</u></b>		
<u>Gym, sports arena (play area)</u>	<u>0.43</u>	<u>2.13</u>
<u>Spectator areas</u>	<u>1.58</u>	<u>8.00</u>

BSR/ASHRAE Addendum z to ANSI/ASHRAE Standard 62.1-2016, *Ventilation and Acceptable Indoor Air Quality*  
First Public Review Draft

<u>Swimming (deck and wetted area)</u>	<u>0.64</u>	<u>3.20</u>
<u>Disco/dance floors</u>	<u>2.75</u>	<u>13.73</u>
<u>Health club/aerobics room</u>	<u>1.15</u>	<u>5.73</u>
<u>Health club/weight rooms</u>	<u>0.35</u>	<u>1.73</u>
<u>Bowling alley (seating)</u>	<u>0.69</u>	<u>3.47</u>
<u>Gambling casinos</u>	<u>1.44</u>	<u>7.28</u>
<u>Game arcades</u>	<u>0.44</u>	<u>2.21</u>
<u>Stages, studios</u>	<u>1.01</u>	<u>5.07</u>



**BSR/ASHRAE Addendum o  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

**Proposed Addendum o to  
Standard 62.2-2016, Ventilation and  
Acceptable Indoor Air Quality in  
Residential Buildings**

**First Public Review (February 2018)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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



BSR/ASHRAE Addendum o to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum would require that new multifamily dwelling units have ventilation be balanced. This would address concerns that unbalanced ventilation performs poorly in multifamily units, but limits the requirement to new construction due to the challenges of retrofitting such systems into existing units.*

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

## Addendum o to 62.2-2016

---

*Add a new Section 4.2.1 as shown below.*

**4.2.1. Balanced systems for attached dwelling units of new construction.** For attached dwelling units of new construction, the dwelling unit mechanical ventilation system shall be a balanced system.



**BSR/ASHRAE Addendum p  
to ANSI/ASHRAE Standard 62.2-2016**

**Public Review Draft**

# **Proposed Addendum p to Standard 62.2-2016, Ventilation and Acceptable Indoor Air Quality in Residential Buildings**

**First Public Review (February 2018)  
(Draft shows Proposed Changes to Current Standard)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE Addendum p to ANSI/ASHRAE Standard 62.2-2016, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*  
First Public Review Draft

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

## FOREWORD

*This proposed addendum would update terminology regarding multifamily buildings for consistency. It adds an explicit definition of “horizontally-attached dwelling unit” to help make application of requirements clear.*

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

## Addendum p to 62.2-2016

---

**Add a definition to Section 3 as shown below.**

**dwelling unit, horizontally-attached:** *an attached dwelling unit not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces.*

**Revise Section 4.1.2 as shown below. The remainder of Section 4.1.2 is unchanged.**

**4.1.2 Infiltration Credit.** If a blower door test has been performed then a credit for estimated infiltration may be taken for ~~nonattached~~ detached dwelling units using either the procedure in Section 4.1.2.1 or 4.1.2.2. Attached dwelling units other than horizontally attached shall not be permitted to take an infiltration credit. Horizontally attached ~~single-family~~ dwelling units shall be permitted to utilize a blower door test result ~~that includes common walls~~ to take this credit, subject to the reduction factor  $A_{ext}$  in Equation 4.2.

If this credit is taken, then the Required Mechanical Ventilation Rate ( $Q_{fan}$ ) shall be calculated using Equation 4.2

$$Q_{fan} = Q_{tot} - \Phi (Q_{inf} \times A_{estext}) \quad (4.2)$$

where

$Q_{fan}$  = required mechanical ventilation rate, cfm (L/s)

$Q_{tot}$  = total required ventilation rate, cfm (L/s)

$Q_{inf}$  = infiltration, cfm (L/s) (see Normative Appendix A for exceptions for existing buildings)

$A_{estext}$  = 1 for ~~single-family~~ detached dwelling units; homes, or otherwise, for horizontally-attached dwelling units, the ratio of exterior envelope surface area that is not attached to garages or other dwelling units, to total envelope surface area for ~~single-family attached homes~~

$\Phi$  = 1 for balanced ventilation systems and  $Q_{inf}/Q_{tot}$  otherwise

**Exception:** A ventilation fan is not required when  $Q_{fan}$  is less than 10 cfm (5 L/s).



**BSR/ASHRAE/ASHE Addendum q  
to ANSI/ASHRAE/ASHE Standard 170-2017**

**Public Review Draft**

**Proposed Addendum q to  
Standard 170-2017, Ventilation of  
Health Care Facilities**

**First Public Review (January 2017)  
(Draft Shows Proposed Independent Substantive  
Changes to Previous Public Review Draft)**

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

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, [www.ashrae.org](http://www.ashrae.org).

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

© 2018 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 1791 Tullie Circle, NE, Atlanta, GA 30329. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: [standards.section@ashrae.org](mailto:standards.section@ashrae.org).

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

BSR/ASHRAE/ASHE Addendum q to ANSI/ASHRAE/ASHE Standard 170-2017, *Ventilation of Health Care Facilities*

Second Independent Substantive Change Public Review Draft

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

## FOREWORD

*This proposed addendum makes changes to the scope of the standard. The following changes are being proposed:*

- a. Add “resident” to differentiate from “patient” in residential health applications (Section 2.1 ).
- b. Clarify that Standard 170 addresses more than outside air quantities, to better differentiate from Standard 62.1 (Section 2.6)
- c. Clarify that Standard 170 does not establish “comprehensive thermal comfort design requirements”. Those requirements are addressed in Standard 55 (Section 2.7).
- d. The text of the Standard will be coordinated with this revised scope in a future addendum, once the revised scope is approved.

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

## Addendum q to 170-2017

---

***Revise the Scope (Section 2) of the approved title, purpose and scope (TPS) for Standard 170 as shown below. The remainder of Section 2 is unchanged. The approved TPS for 170 is posted at <https://www.ashrae.org/standards-research--technology/standards--guidelines/titles-purposes-and-scopes#SSPC170>.***

### 2. SCOPE

**2.1** The requirements in this standard apply to patient ~~and resident~~ care areas, resident care areas, and related support areas within health care facilities.

[...]

**2.6** This standard establishes design requirements for ventilation rates ~~the volumetric flow rate of air~~ including, but not limited to outdoor air to serve health care ~~spaces~~ facilities.

**2.7** This standard does not establish comprehensive thermal comfort design requirements.

**Not for publication. This document is part of the NSF International standard development process. This draft text is for circulation for review and/or approval by a NSF Standards Committee and has not been published or otherwise officially adopted. All rights reserved. This document may be reproduced for informational purposes only.**

[Note – the changes are illustrated below using ~~strikeout~~ for proposed removal of existing text and grey highlights to indicate the proposed revised text. ONLY the highlighted text and strikeout text is within the scope of this ballot. Rationale Statements are in RED and only used to add clarity; these statements will NOT be in the finished publication]

## NSF International Standard/ American National Standard –

# Food equipment

- 
- 
- 

### 1.2 Scope

Equipment covered by this Standard includes, but is not limited to, bakery, cafeteria, kitchen, and pantry units and other food handling and processing equipment such as tables and components, counters, dinnerware, hoods, shelves, and sinks.

Section 7 of this Standard pertains to food handling and processing equipment that has been designed and manufactured for special use purposes. Food equipment designed and manufactured with a security package is utilized in environments such as correctional facilities, mental health facilities, or some schools. For these environments, where both sanitation and security are concerns, 7 contains exceptions to this Standard that shall only be applicable to the splash and nonfood zones of food equipment provided with a security package.

Equipment components and materials covered under other NSF or NSF/ANSI Standards or Criteria shall also comply with the requirements therein. This Standard is not intended to restrict new unit design, provided that such design meets the minimum specifications described herein.

*Rationale: Adding the term “dinnerware” to the scope specifically acknowledges that dinnerware products are covered under Standard 2.*

- 
- 
- 

### 5.XX Identification mark

Dinnerware products shall have a permanent marking or an identification plate that denotes the manufacturer's name and product model number. If the manufacturer has more than one production location for the dinnerware product, then the production location shall be identified on the marking or identification plate.

*Rationale: Adding the marking requirement from Standard 36 ensures that dinnerware products are properly marked. The language is copied from section 5.8 of Standard 36. The exact sub-section number has not yet been determined.*

**BSR/UL 444, Standard for *Communication Cables*,**

**1. Addition of Jackets of Expanded Material**

**PROPOSAL**

**5.10 Jackets**

5.10.1 A jacket consisting of a continuous nonmetallic outer covering consisting of a solid and/or expanded material complying with the requirements of Clauses 5.10.2 - 5.10.8 shall be applied over the cable construction.

5.10.2 The jacket shall be uniform and shall not have any defects (bubbles, open spots, rips, tears, cuts, or foreign material) that are visible without magnification to normal or corrected-to-normal vision. Voids or bubbles within expanded material are not considered defects. Open voids or bubbles visible on the surface of a jacket of expanded material are considered defects.

5.10.6.1 Jackets of expanded materials are acceptable if the finished cable complies with the tests described in the Standard. Evaluation of jackets of expanded material shall include crush, impact and abrasion tests. These tests are waived on fluoropolymer jackets with a measured tensile strength of 17.24 MPa (2500 psi) or more and for non-fluoropolymer jackets with a measured tensile strength of 8.27 MPa (1200 psi) or more.

5.10.8 Tensile strength values of jacket materials, as specified in 7.8, Tables 9 and 10 shall be determined in accordance with the test, Insulation and Jacket Physical Properties in CSA C22.2 No. 2556 or UL 2556.

7.8.1 Specimens of jacket of solid material, removed from completed cable, shall meet the appropriate values shown in Table 9. Specimens of jackets of expanded material, removed from completed cable, shall meet the appropriate values for solid materials shown in Table 9 except the requirements for tensile strength shall be reduced by the same percentage as the percentage of voids within the material. The minimum reduced tensile strength requirement shall be shown in Table 9

**Table 9**

**Minimum unaged properties of insulations and jackets**

**(See Clauses 5.10.8, 7.3.2.1, and 7.8.1.)**

<b>Material</b>	<b>Ultimate</b>	<b>Tensile</b>	<b><u>Tensile</u></b>	<b><u>Tensile</u></b>
-----------------	-----------------	----------------	-----------------------	-----------------------

	elongation percent	strength		strength jackets of expanded material	strength jackets of expanded material
		MPa	lbf/in <sup>2</sup>	MPa	lbf/in <sup>2</sup>
ECTFE ETFE	100	34.5	5000	<u>24.1</u>	<u>3500</u>
FEP	200	17.2	2500	<u>12.1</u>	<u>1750</u>
FRPE, FRPP	100	8.3	1200	<u>8.3</u>	<u>1200</u>
HDPE	300	16.5	2400	<u>11.6</u>	<u>1680</u>
LDPE	350	9.7	1400	<u>8.3</u>	<u>1200</u>
MFA, PFA	200	17.2	2500	<u>12.1</u>	<u>1750</u>
PP	150	20.7	3000	<u>14.5</u>	<u>2100</u>
PTFE	175	27.6	4000	<u>19.3</u>	<u>2800</u>
PVC	100	13.8	2000	<u>9.7</u>	<u>1400</u>
PVDF	100	24.1	3500	<u>16.9</u>	<u>2450</u>
SRPVC	100	20.7	3000	<u>14.5</u>	<u>2100</u>
TPE	300	9.65	1400	<u>8.3</u>	<u>1200</u>
XL	150	10.3	1500	<u>8.3</u>	<u>1200</u>
XLPO	150	13.8	2000	<u>9.7</u>	<u>1400</u>

**Notes: 1)** All materials shall be tested at 500 ±25 mm/min (20 ±1 in/min) except ECTFE, ETFE, FRPE, FRPP, HDPE, PP, PVDF, and SRPVC. These materials shall be tested at 50 ±5 mm/min (2.0 ±0.2 in/min).

**2)** An insulation or a jacket of a material other than one of those mentioned in the first column of this table may be used, provided that it has been evaluated to verify acceptability for use in the intended application.

UL copyrighted material. No authorized for further reproduction without prior permission from UL.



## BSR/UL 507, Standard for Electric Fans

### 1. Detachable Cords

#### PROPOSAL

15.1.4 The flexible cord for products as described in rows 1 and 2 of Table 15.1 shall be attached permanently to the appliance or be in the form of a separate cord set with acceptable means for permanent connection to the appliance.

15.1.4.1 An appliance intended for use with a detachable cord set shall not be provided with terminal pins that accommodate a standard flatiron or appliance plug.

### 2. Revision of the Temperature Test Frequency for Multiple Frequency Products

#### PROPOSAL

46.1.10 For the temperature test, the test voltage for an appliance is to be as specified in Table 40.1. When the appliance has a single frequency rating, the test is to be conducted at that frequency. An appliance that has more than one frequency rating rated 25 – 50 hertz or 50 – 60 hertz is to be tested using a 60-hertz supply at its minimum and maximum rated frequency, unless it can be established that one test will result in the most severe operating conditions.

### 3. Modification of Dielectric Voltage Withstand Test

#### PROPOSAL

47.1 An appliance shall withstand for 1 minute without electrical breakdown the application of a DC potential or an AC 60-hertz essentially sinusoidal potential at a frequency within the range of 40 to 70 Hz of the value indicated in 47.2 between the following:

- a) Uninsulated live metal parts and the enclosure. A non-conductive enclosure is to be wrapped in conductive foil.
- b) Terminals of opposite polarity.
- c) Uninsulated live metal parts and accessible dead metal parts.
- d) Uninsulated live metal parts and grounding contacts of grounding type receptacles.
- e) Primary and isolated secondary circuits.

47.2 The test potential shall be as shown in Table 47.1, referenced in 47.1 is to be as follows:

- a) ~~One thousand volts for an appliance employing a motor rated 373 watts (1/2 horsepower output) or less and rated 250 volts or less. See 30.4.~~
- b) ~~One thousand volts plus twice the rated voltage for an appliance employing a motor rated more than 373 watts (1/2 horsepower output) or more than 250 volts. See 30.4.~~

c) ~~Five hundred volts for an appliance operating at 50 volts or less. See 30.4.~~

**Table 47.1**

**Dielectric voltage withstand voltages**

<b>Machine voltage rating, V</b>	<b>Test potential V AC</b>	<b>Test potential V DC</b>
Appliances operating at 50 V or less	500	700
Appliances employing a motor rated 373 W (1/2 hp output) or less and rated 250 V or less	1000	1400
An appliance employing a motor rated more than 373 W (1/2 hp output) or more than 250 V	1000 + 2V <sup>a</sup>	1400 + 2.8V <sup>a</sup>
<sup>a</sup> Maximum marked voltage.		

76.1 Each appliance shall withstand without electrical breakdown, the application of a AC or DC potential as indicated in Table 76.1 and at a frequency within the range of 40 – 70 hertz, as follows:

- a) Between the primary wiring, including connected components, and accessible dead metal parts that are capable of becoming energized; and
- b) Between primary wiring and accessible low-voltage (42.4 volts peak or less) metal parts, including terminals.

*Exception No. 1: This requirement does not apply to an appliance that has no electrical components other than a motor that is acceptable for permanent connection to the supply source and complies with the requirements in the Standard for Rotating Electrical Machines - General Requirements, UL 1004-1.*

*Exception No. 2: For component fans with accessible dead metal, the potential is to be applied between the input leads or terminals and dead metal parts. For component fans with no accessible dead metal, the dielectric voltage withstand test is not required.*

**Table 76.1**

**Production-line test conditions**

<b>Product Machine voltage rating, V</b>	<b>Condition A</b>			<b>Condition B</b>		
	<b>Potential, volts Test potential V AC (40-70 Hz)</b>	<b>Test potential V DC</b>	<b>Time, seconds</b>	<b>Potential, volts Test potential V AC (40-70 Hz)</b>	<b>Test potential V DC</b>	<b>Time, seconds</b>
60 volts or less	500	700	60	600	850	1
250 volts or less with a motor rated 373 watts (1/2 hp) or less	1000	1400	60	1200	1700	1
250 volts or less with a motor rated more than 373 watts (1/2 hp)	1000+2V <sup>a</sup>	1400+2V <sup>a</sup>	60	1200+2.4V <sup>a</sup>	1700+3.4V <sup>a</sup>	1
251 - 600 volts	1000+2V <sup>b</sup>	1400+2V <sup>b</sup>	60	1200+2.4V <sup>b</sup>	1700+3.4V <sup>b</sup>	1

<sup>a</sup> Maximum marked voltage but not less than 120 volts if the maximum marked voltage is within the range 105 - 120 volts, and not less than 240 volts if the maximum marked voltage is within the range 210 - 240 volts.

<sup>b</sup> Maximum marked voltage.

#### 4. Obtaining 2-Volt dc Offset Potential

##### PROPOSAL

87.1.1 In addition to the condition described in 46.1.11, a fan that includes or that is intended for use with a solid-state speed control is to be operated under each of the following conditions:

- a) At the speed and rotation direction resulting in maximum motor temperatures. During this test, the fan is to be connected to the load side of a triac. The triac is to be provided with associated circuitry allowing it to be triggered during each half-cycle of the ac input to the fan. Speed control is to be accomplished by varying the trigger points.
- b) Connected and tested as described in (a) with a 2-volt dc offset potential applied to the ac fan input voltage by a suitable method and with the integral solid-state speed control bypassed. The 2-volt dc offset potential is to be obtained by using a speed control device having routing diodes and dual triggering circuits to allow independent adjustment of the positive and negative 1/2 cycle triac triggering points. The triggering points are to be adjusted so that a 2-volt dc bias is measured on the switched ac output waveform. The dc bias may be measured by a dc volt meter having a frequency damped response in the range of 0 - 120 hertz. See Figure 87.1. Alternately, the 2-volt dc offset potential can be obtained by using a power source capable of delivering the proper test voltage along with the 2-volt dc offset.
- c) With the fan connected to an ac supply modified to produce half-wave output. The supply is to be switched from sinusoidal to half-wave output after the fan is operating at maximum speed. This test is to be conducted in the rotation direction and speed control setting resulting in maximum motor temperatures. If after the supply is switched from sinusoidal to half-wave operation, the fan motor shaft does not continue to rotate in a manner that is a usable normal condition, the locked-rotor temperature requirements described in 87.1.2 shall be used instead of the maximum temperature rises specified in Table 46.1. See Figure 87.2.

#### 5. Appliances for Use in "Other Spaces Used for Environmental Air"

##### PROPOSAL

##### **AIR-FILTERING APPLIANCES FOR USE IN "OTHER SPACES USED FOR ENVIRONMENTAL AIR"**

##### **212 General**

212.1 These requirements cover air-filtering appliances specifically evaluated for use in "other spaces used for environmental air" per Article 300.22 (c) of the National Electrical Code, ANSI/NFPA 70. In addition to the applicable requirements in Part 1 of this Standard, air-filtering appliances for use in "other spaces used for environmental air" shall comply with the requirements in all applicable Part 2 sections including, but not necessarily limited to, Fans For Use With Solid-State Speed Controls, Fans For Use In Unattended Areas, and Sections 213 and 214.

## 213 Construction

213.1 Exception No. 1 of 7.3.1 shall not apply to these ~~air filters~~ appliances. All non-metallic enclosure and cabinet parts, including polymeric grilles, shall be classed 5 VA by the burning tests described in the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94.

213.2 Polymeric parts such as the enclosure, cabinet, grille, insulating liners, and impeller shall comply with the following requirements:

- a) A flame spread index of 25 or less, as determined by the Standard for Test for Surface Burning Characteristics of Building Materials, UL 723, or as determined by the Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source, ASTM E162-1990; and
- b) A maximum smoke developed index of 50 or less, as determined by the Standard for Test for Surface Burning Characteristics of Building Materials UL 723.

*Exception No. 1: A molded or formed polymeric material, other than the enclosure, cabinet, or grille, in such quantities that its total exposed surface area within the compartment does not exceed 0.93 square m (10 square feet) need only comply with part (a).*

*Exception No. 2: A molded or formed polymeric material, other than the enclosure, cabinet, or grille, in such quantities that its total exposed surface area within the compartment does not exceed 0.93 square m (10 square feet) shall be considered to satisfy this requirement if it complies with the requirements of the vertical burning test for classifying materials 5V in accordance with the Standard for Tests for Flammability of Plastic Materials in Devices and Appliances, UL 94.*

*Exception No. 3: Appliances or assemblies exhibiting compliance with the Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces, UL 2043, and marked as specified in 214.2, are considered to meet this requirement.*

213.3 Air filters, if provided, shall comply with the Standard for Air Filter Units, UL 900.

213.4 If the appliance is intended to discharge into a duct system serving more than one room it shall be evaluated to all pertinent requirements in the Standard for Heating and Cooling Equipment, UL 1995.

## 214 Markings

214.1 ~~Air filtering a~~Appliances in compliance with Sections 212 and 213 shall be marked "These units evaluated for use in other spaces for environmental air per National Electrical Code Article 300.22 (c)(2 3)." ~~3).~~

214.2 ~~Air filtering a~~Appliances marked as specified in 214.1 and evaluated per Exception No. 3 of 213.2 shall be marked "CAUTION:" and the following or equivalent "Units shall not be installed less than 30.5 cm (12 inches) apart."

## BSR/UL 789-201x, Standard for Safety for Indicator Posts for Fire-Protection Service

### 1. Revised Requirements to Above Ground Valve Mounted Indicator Post

1.1 These requirements cover indicator posts, including wall-~~and~~, underground, and above ground types, for use in operating valves of the inside-screw pattern and for indicating the position of the gates in such valves. Indicator posts are primarily intended for use with valves controlling water supplies to sprinkler, deluge, water spray, foam, and standpipe systems used in private fire service where connections enter buildings.

#### 5 Barrels

5.1 The walls of a barrel shall be made of material having physical and corrosion resistant properties at least equivalent to one of the following:

- a) Gray iron extra-heavy soil pipe (0.25 inch nominal thickness) in accordance with the Standard Specification for Cast Iron Soil Pipe and Fittings, ASTM A74, for either the upper or lower barrel;
- b) Minimum 0.21-inch thick ductile iron in accordance with the Standard for Ductile Iron Pipe Centrifugally Cast, for Water, ANSI/AWWA C151/A21.51, for either the upper or lower barrel;
- c) Schedule 40 steel pipe for either the upper or lower barrel in accordance with Standard Specification for Pipe, Steel, Black, and Hot-Dipped, Zinc-Coated, Welded and Seamless, ASTM A53, and the Standard Specification for Electric-Resistance-Welded Steel Pipe, ASTM A135;
- d) Steel tubing made in accordance with Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes, ASTM A500, with a minimum wall thickness at least equivalent to schedule 40 steel pipe of the same size.
- e) Class 200 polyvinyl chloride (PVC) pipe in accordance with the Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 inch through 12 inch for Water Distribution, AWWA C-900, for the lower barrel of indicator posts for underground use.

5.2 Ferrous materials having wall thickness less than those specified in 5.1 and provided with a protective interior and exterior coating may be used when determined to be equivalent using comparative corrosion analysis.

5.3 The inside diameter shall be nominally 4 inches (102 mm) at any point throughout its length. The inside diameter at the bottom of the lower part shall be not less than 8

inches (203 mm) over the length required to provide for clearance to the valve bonnet when attached to the valve flange.

5.4 The length of a barrel for an underground valve shall be such that the middle of the target windows can be placed at least 30 inches (760 mm) above the "bury" line marked on the barrel.

5.5 If the length of a barrel for an underground valve is adjustable:

a) The upper part shall extend below the ground a distance of not less than 6 inches (152 mm);

b) The means for connecting the upper and lower parts shall prevent dirt from entering inside the barrel. Means for dirt entrance prevention may include the use of an "O"-ring seal installed in a groove between the upper and lower parts of the barrel constructed to resist dislodgement; having the upper barrel part telescope over the lower barrel part with the top of the lower part extending above the "bury" line; or the like; and

c) The parts shall be clamped together by two 3/4 inch (19.1 mm) diameter mild-steel setscrews, complying with the Specification for Carbon Steel Forgings for Piping Components, ASTM A105/A105M, or having equivalent strength, placed one above the other in the upper part. The lower part shall be arranged so as to prevent separation or rotation of the upper part.

5.6 Prevention of separation may be accomplished by providing on the lower part either deeply spotted holes for the ends of the setscrews or a series of horizontal ribs spaced the same distance apart as the setscrews. Prevention of rotation may be accomplished by casting four vertical ribs on the exterior of the lower part. Setscrews may also be used to prevent separation and rotation.

5.7 The upper part of a barrel for underground service shall be constructed so that there is no projection, flange, taper, or roughness by which the action of frost may lift the part. A bead, if used to mark the "bury" line, shall not be raised more than 1/8 inch (3.2 mm) on the casting.

5.8 An indicator post shall be provided with a base flange for connection to the indicator-post flange provided as part of the inside-screw gate valve. The indicator-post flange shall be drilled for four 5/8 inch (15.9 mm) diameter mild-steel bolts, complying with the Specification for Carbon Steel Forgings for Piping Components, ASTM A105/A105M, or having equivalent strength, placed at 90 degrees on a bolt circle of 10-1/2 inches (267 mm) for valves up to and including 14 inches (356 mm).

5.9 The barrel for a wall-mounted indicator post shall be provided with an integral flange

for bolting to the outside of the wall. The flange shall provide for four 5/8 inch (15.9 mm) diameter mild-steel bolts, complying with the Specification for Carbon Steel Forgings for Piping Components, ASTM A105/A105M, or having equivalent strength, placed at 90 degrees on a bolt circle of at least 10-1/2 inches (267 mm). The inside diameter of the barrel shall provide a minimum 1/2 inch (12.7 mm) clearance between moving parts and the barrel.

5.10 An above ground indicator post shall be provided with a base flange for connection to the indicator-post flange provided as part of the inside-screw gate valve. The base flange shall be integral to the barrel or be securely fastened to the barrel, such as by the use of two 1/2 inch (12.7 mm) diameter mild-steel bolts complying with the Specification for Carbon Steel Forgings for Piping Components, ASTM A105/A105M. The indicator post flange shall be drilled for four 5/8 inch (15.9 mm) diameter mild-steel bolts, complying with the Specification for Carbon Steel Forgings for Piping Components, ASTM A105/A105M, or having equivalent strength, placed at 90 degrees on a bolt circle of 10-1/2 inches (267 mm) for valves up to and including 14 inches (356 mm). An example of an above ground indicator post is shown in Appendix A.

### 13 Strength of Parts Test

13.1 Representative samples of each indicator post design shall be subjected to the Strength of Parts Test.

13.2 An indicator-post assembly, including the barrel, cap, operating stem, stem nut, extension rod, and wrench or handwheel shall withstand, without damage, the turning effort specified in Table 13.1 applied through the wrench or handwheel regularly furnished with the post. The higher torque requirements shall apply in cases where the post is intended for use with both wrench and handwheel.

**Table 13.1**

#### *Torque requirements*

Wrench length		Handwheel diameter		Minimum torque	
inches	(mm)	inches	(mm)	foot-pounds	(N·m)
12	(305)	-	-	260	(352)
14	(356)	-	-	325	(440)
16	(407)	14	(356)	450	(610)
18	(457)	16	(407)	640	(867)
20	(508)	18	(457)	900	(1220)



13.3 The indicator post is to be bolted in place in accordance with the manufacturer's installation instructions.

a) A wall-type indicator is to be supported primarily by its wall flange.

b) ~~, while an~~An underground-type indicator is to be bolted to a rigidly supported flange representing the flange furnished for this purpose as part of an inside screw valve. The underground-type post may also be supported at the intended ground or "bury" line.

c) An above ground type is to be tested in two orientations, perpendicular to the wall which represents a vertical installation and perpendicular to the floor which represents a horizontal installation. The test specimen shall be bolted to a rigidly supported flange representing the flange furnished for this purpose as part of an inside screw valve.

13.4 The extension-rod coupling or other means normally engaging the nut of the valve to be operated by the indicator post is to be secured against turning.

13.5 The turning force is to be applied using a torque wrench strapped or otherwise secured to the regular handwheel or wrench furnished with the post.

13.6 The turning force is to be applied both in the clockwise and counterclockwise directions and is to be maintained at the value designated in Table 13.1 for not less than 1 minute for each application of the force.

## Appendix A

### *A1 Example of an Above Ground Indicator Post*

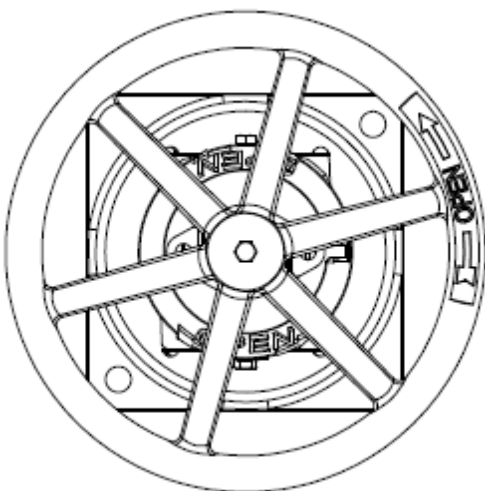
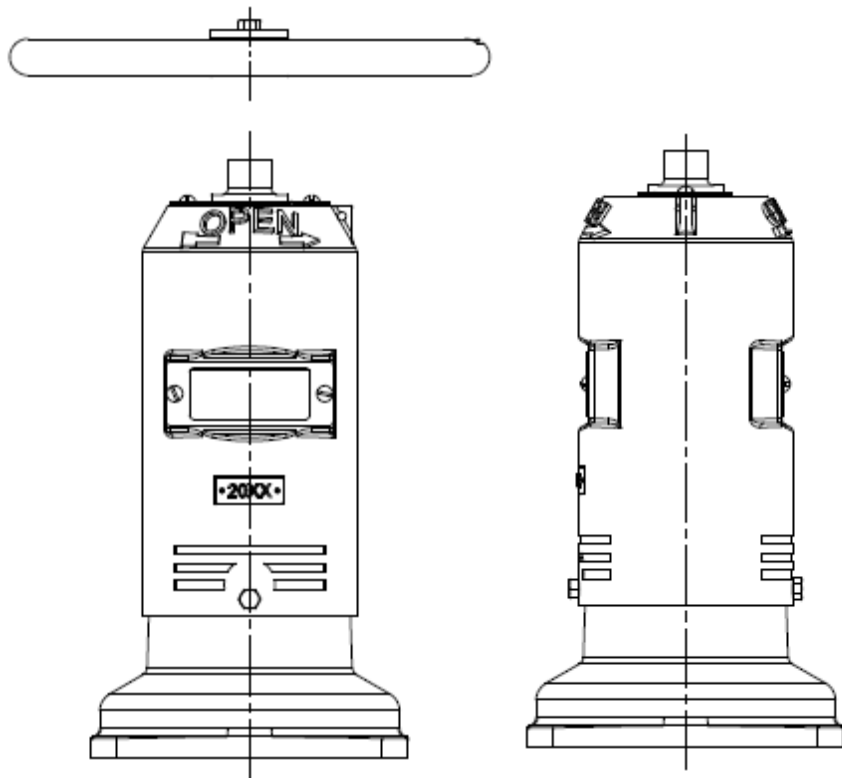
(NEW)

#### **Figure A.1**

#### *Above Ground Indicator Post*

Please see supporting documentation in the CSDS Work Area for proposed figure A.1





Without prior permission from UL.

or further reproduction

UL copyrighted material

## BSR/UL 61730-1, Standard for Safety for Photovoltaic (PV) Module Safety Qualification - Part 1: Requirements for Construction

### 5.2.2.2.1 Equipotential bonding

A wiring terminal or bonding location of a PV module intended to accommodate a field installed bonding conductor for equipotential bonding shall be identified with the appropriate symbol IEC 60417-5021 (DB:2002-10) (Figure 2)). Alternatively IEC 60417-5017 (Figure 1) can be used. No other terminal or location shall be identified in this manner.

Figure 1 - IEC 60417-5017



Figure 2 - IEC 60417-5021



**5.2.2.2.1DV DE Modification by replacing the text of Clause 5.2.2.2.1 and Figure 1 with the following:**

#### Equipment grounding

A wiring terminal or bonding location of a PV module intended to accommodate a field installed equipment grounding conductor for equipment grounding shall be identified with the appropriate symbol IEC 60417-5017-5019 (Figure 4 1DV). No other terminal or location shall be identified in this manner.

Figure 1DV - IEC 60417-5019



UL copyrighted material. Not authorized for further reproduction without prior permission from UL.