

**ANSI/ASHRAE/ICC/USGBC/IES Addendum n to  
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2020**

# **Standard for the Design of High-Performance Green Buildings**

## **Except Low-Rise Residential Buildings**

*The Complete Technical Content of the International Green Construction Code®*

Approved by ASHRAE staff and the American National Standards Institute on February 28, 2022; by the International Code Council on February 15, 2022; by the Illuminating Engineering Society on February 25, 2022; and by the U.S. Green Building Council on February 15, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

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

## FOREWORD

*Addendum n removes references to health care facilities and health care spaces from Standard 189.1 in cases where they are covered by language in Standard 189.3. This addendum is not intended to make substantive changes to any of the provisions when considering 189.1 and 189.3 together.*

**Note:** In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

### Addendum n to Standard 189.1-2020

*Revise Sections 8.3.1, 8.3.1.1, and 8.3.1.3 as shown.*

**8.3.1 Indoor Air Quality.** Buildings shall comply with the design requirements of ANSI/ASHRAE Standard 62.1, Sections 4 through 6, including applicable normative appendices, with the modifications and additions indicated herein. ~~Health care facilities shall comply with the design requirements of ANSI/ASHRAE/ASHE Standard 170, including applicable normative appendices, with the modifications and additions indicated herein.~~ *Residential dwelling units* shall comply with the design requirements of ANSI/ASHRAE Standard 62.2, Sections 4 through 8, with the modifications and additions indicated herein.

Requirements provided in Sections 8.3.1.1 through 8.3.1.7 supersede such requirements in ASHRAE Standard 62.1, and ASHRAE Standard 62.2, and ASHRAE/ASHE Standard 170. ~~Where a space type in a health care facility is listed in both Standard 62.1 and Standard 170, the requirement in Standard 170 shall be used.~~

**8.3.1.1 Minimum Ventilation Rates.** ~~In health care facilities, the ventilation requirements of ASHRAE/ASHE Standard 170 shall apply.~~ In *residential dwelling units*, the *dwelling unit* ventilation rates and local exhaust airflow rates as required by ASHRAE Standard 62.2 shall apply. ASHRAE Standard 62.2, Section 4.1.2, shall not apply. In all other cases, ASHRAE Standard 62.1, Sections 6.1.1 and 6.2, shall be used to determine minimum zone and intake outdoor airflow rates. ASHRAE Standard 62.1, Sections 6.1.2 and 6.1.3, shall not apply. Where a space in a health care facility is listed in both Standard 62.1 and Standard 170, the  $R_p$ - $R_a$  Option in Standard 170 shall be used.

[ . . . ]

#### 8.3.1.3 Filtration and Air Cleaner Requirements

- a. **Particulate Matter.** The following requirements shall apply in all buildings.
1. **Wetted Surfaces.** Particulate matter filters or air cleaners having a minimum efficiency reporting value (MERV) of not less than 8 where rated in accordance with ANSI/ASHRAE Standard 52.2, or not less than Coarse 90% where rated in accordance with ISO 16890, shall be provided upstream of all cooling coils or other devices with wetted surfaces through which air is supplied to an *occupiable space*. These requirements supersede the requirements in ASHRAE Standard 62.1, Section 5.9.
  2. **Particulate Matter Smaller than 10 Micrometers (PM10).** Particulate matter filters or air cleaners shall be provided in accordance with Standard 62.1, Section 6.1.4.1, with the following modification. Such filters or air cleaners shall have a MERV of not less than 11 where rated in accordance with ASHRAE Standard 52.2, or not less than ePM2.5-50% where rated in accordance with ISO 16890.
  3. **Particulate Matter Smaller than 2.5 Micrometers (PM2.5).** Particulate matter filters or air cleaners shall be provided in accordance with Standard 62.1, Section 6.1.4.2, with the following modification. Such filters or air cleaners shall have a MERV of not less than 13 where rated in accordance with ASHRAE Standard 52.2, or not less than ePM1-50% where rated in accordance with ISO 16890.

**Exception to 8.3.1.3(a):** In health care facilities, the particulate filter requirements of ASHRAE/ASHE Standard 170 shall apply.

- b. **Outdoor Air Ozone Removal.** Air cleaning devices for ozone shall be provided for buildings located in an area that is designated “non-attainment” for ozone by USEPA, or located in an area that does not comply with applicable ambient air quality standards for ozone as determined by the *authority having jurisdiction (AHJ)*. Such air cleaning devices shall have an ozone removal efficiency of no less than 40% where installed, operated, and maintained in accordance with the manufacturer’s recommendations, and shall treat all *out- door air* intake flow. Such air cleaning devices shall be operated whenever the outdoor ozone level is expected to exceed the National Ambient Air Quality Standards (NAAQS). This requirement supersedes the requirements of ASHRAE Standard 62.1, Section 6.1.4.3. ~~This requirement applies to all buildings, including health care facilities covered by ASHRAE/ASHE Standard 170.~~

[ . . . ]

**Revise Section 8.5.1.1 as shown.**

**8.5.1.1 Minimum daylight.** The computed area-weighted *sDA* shall not be less than 40%. The *sDA* within each *space* shall be calculated all *spaces*, with the exception of the following *space* types, which shall be calculated on the basis of 14 fc (150 lux): ~~healthcare patient rooms~~, post-office sorting areas, gymnasias, big box retail, transportation facility terminal ticket counters, airport concourses, and nonrefrigerated warehouses.

**Exceptions to 8.5.1.1:**

1. A *space* used for tasks or activities requiring routine dark conditions for more than 4 daytime hours per day.
2. A space where the height of existing facing structures above the vertical fenestration is not less than twice the distance between the vertical fenestration and facing structures, measured from the top of the glazing.

**POLICY STATEMENT DEFINING ASHRAE'S CONCERN  
FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

### **Standard 189.1 and the International Green Construction Code**

Standard 189.1 serves as the complete technical content of the International Green Construction Code<sup>®</sup> (IgCC). The IgCC creates a regulatory framework for new and existing buildings, establishing minimum green requirements for buildings and complementing voluntary rating systems. For more information, visit [www.iccsafe.org](http://www.iccsafe.org).

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Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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