

Public Review Draft

Proposed Addendum r to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (March 2019)
(Draft Shows Proposed Changes to Current Standard)

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

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 ASHARE expressly disclaims such.

© 2019 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.

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



© 2019 ASHRAE This is a working draft document intended for review only by the cognizant ASHRAE groups and other designated reviewers and is not for distribution to any private interests, individuals or third parties that are not designated as ASHRAE reviewers for this document.

This document may not be distributed in whole or in part in either paper or electronic form outside of the PC without the express permission of the MOS and shall include a statement indicating such.

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

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

Foreword: This addendum identifies a number of requirements from Section 8 of Standard 189.1 as being appropriate for local jurisdictions to consider excluding from their adopting ordinances. A new Table 4.2 is added which lists these requirements in a format intended to simplify review by the jurisdiction. The new table is modeled on Table 302.1 of the 2015 IgCC and is not applicable to compliance with the standard, but is intended to be normative in the IgCC. Compliance with all requirements, including those listed in Table 4.2, remain required for compliance with Standard 189.1.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 r to 189.1-2017

Add a new informative Section 4.2 including a new informative Table 4.2, and move Sections 4.1.1 through 4.1.4 to a new Section 4.3:

4. ADMINISTRATION AND ENFORCEMENT

4.1 General. *Building projects* shall comply with Sections 4 through 11. Within each of those sections, *building projects* shall comply with all mandatory provisions (x.3) and, where offered, either the

- a. Prescriptive Option (x.4) or
- b. Performance Option (x.5).

Informative Note – to become normative in IgCC:

4.2 Requirements determined by the jurisdiction. The jurisdiction shall indicate the following information in Informative Table 4.2 for inclusion in its code adopting ordinance:

1. Where “No” boxes are provided, the jurisdiction shall check the box to indicate where that section is not to be enforced as a requirement in the jurisdiction. Where the “No” box is not checked, that section is to be enforced.

2. Where a numerical value is required to specify the level of performance required, the jurisdiction shall indicate the required value. Where a numerical value is not indicated, the value in the text is to be enforced.

***Informative Note:** The jurisdictional requirements listed in Table 4.2 are formatted to afford jurisdictions the flexibility to adapt the code in a manner that is best suited to meet their unique environmental and regional goals and needs. Enforcement of these jurisdictional requirements will result in higher performing buildings, but may go beyond the needs of specific jurisdictions. Jurisdictional option provisions are indicated in the body of the standard with the symbol [JO] after the section number.*

**INFORMATIVE TABLE 4.2 – to become normative in IgCC
REQUIREMENTS DETERMINED BY THE JURISDICTION**

<u>SECTION</u>	<u>SECTION TITLE OR DESCRIPTION AND DIRECTIVES</u>	<u>Jurisdictional Requirement</u>
<u>8.3.1.3.(b)</u>	<u>Ozone</u>	<u> No</u>
<u>8.3.1.4</u>	<u>Building Pressure</u>	<u> No</u>
<u>8.3.1.9</u>	<u>Guest Room Preoccupancy Outdoor Air Purge Cycle</u>	<u> No</u>
<u>8.3.4</u>	<u>Soil Gas Control</u>	<u> No</u>

4.3 References and Appendices.

4.13.1 Referenced Standards. The standards referenced in this standard and listed in Section 11 shall be considered part of the requirements of this standard to the prescribed extent of such reference. Where differences exist between provisions of this standard and a referenced standard, the provisions of this standard shall apply. Informative references in Informative Appendix G are cited to acknowledge sources and are not part of this standard.

4.13.2 Normative Appendices. The normative appendices to this standard are considered to be integral parts of the mandatory requirements of this standard, which for reasons of convenience are placed apart from all other normative elements.

4.13.3 Informative Appendices. The informative appendices to this standard, and informative notes located within this standard, contain additional information and are not mandatory or part of this standard.

4.13.4 Reference Standard Reproduction Annexes. The reference standard reproduction annexes contain material that is cited in this standard but that is contained in another standard. The reference standard reproduction annexes are not part of this standard but are included in its publication to facilitate its use.

Add [JO] following the section number to indicate that Section 8.3.1.3(b) is a jurisdictional option:

8.3.1.3 Filtration and Air Cleaner Requirements

a. **Particulate Matter.** The following requirements shall apply in all buildings.

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

1. **Wetted Surfaces.** Particulate matter filters or air cleaners having a minimum efficiency reporting value (MERV) of not less than 8 when rated in accordance with ANSI/ASHRAE Standard 52.2 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 5.8.
 2. **Particulate Matter Smaller than 10 Micrometers (PM10).** Particulate matter filters or air cleaners shall be provided in accordance with Standard 62.1, Section 6.2.1.1, with the following modification. Such filters or air cleaners shall have a MERV of not less than 8 when rated in accordance with ASHRAE Standard 52.2.
 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 6.2.1.2, with the following modification. Such filters or air cleaners shall have a MERV of not less than 13 when rated in accordance with ASHRAE Standard 52.2.
- b. **[JO] Ozone.** Air cleaning devices for ozone shall be provided for buildings located in an area that is designated “nonattainment” in an area that exceeds the National Ambient Air Quality Standards (NAAQS) 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. Such air cleaning devices shall be operated whenever the outdoor ozone level is expected to exceed the NAAQS. This requirement supersedes the requirements of ASHRAE Standard 62.1, Section 6.2.1.3. This requirement applies to all buildings, including health care facilities covered by ASHRAE/ASHE Standard 170.
- c. **Sealing.** Where particulate matter filters or air cleaners are required by Section 8.3.1.3, filter tracks, filter supports, filters, and access doors shall be sealed in accordance with the following:
1. Where filter track and filter support systems incorporate multiple filters, the gap between each filter shall be sealed with a gasket, and the gap between the filter and its track or support shall be sealed using gaskets that expand when the filter is removed. Filter support systems shall include a filter-to-support gasket *permanently installed* on the filter support, except for filter track and filter support systems that seal around the filter by means of a friction fit.
 2. Filter tracks and filter supports shall be sealed to the HVAC equipment housing and ducts by a sealant or other sealing method.
 3. Filter access doors shall be sealed to minimize filter bypass and air leakage into or out of the system.
 4. Gaskets and seals used to comply with the requirements of this section shall be capable of effecting a seal for the anticipated life of the equipment, and the system shall be designed such that the seals are readily accessible.
 5. Field- or shop-fabricated *spacers* shall not be installed for the purpose of replacing the intended-size filter with a smaller-size filter.

Add [JO] following the section number to indicate that Section 8.3.1.4 is a jurisdictional option:

8.3.1.4 [JO] Building Pressure. The requirements in Section 8.3.1.4 supersede the requirements in ASHRAE Standard 62.1, Section 5.9.2. *Building projects* shall be designed in accordance with the following subsections.

8.3.1.4.1 Mechanical Exhaust. Mechanical systems shall include controls capable of disabling exhaust fans and closing exhaust dampers whenever mechanical intake airflow is discontinued.

8.3.1.4.2 Exfiltration. Mechanical air-conditioning systems with dehumidification capability shall include system controls capable of maintaining static pressure inside the building, at the top floor, equal to or greater than the static pressure outside of the building during *mechanical cooling* operation.

Exceptions to 8.3.1.4.2:

1. Where excess exhaust is required by process considerations, such as certain industrial or healthcare facilities.
2. Warehouse facilities.
3. Buildings in *Climate Zones* 0B, 1B, 2B, 3B, 3C, 4B, 4C, 5, 6, 7 and 8.

Add [JO] following the section number to indicate that Section 8.3.1.9 is a jurisdictional option:

8.3.1.9 [JO] Guest Room Preoccupancy Outdoor Air Purge Cycle. Guest room ventilation systems controlled according to Section 7.4.3.10.4 shall have an *automatic* preoccupancy purge cycle that shall provide *outdoor air* ventilation at the design ventilation rate for 60 minutes, or at a rate and duration equivalent to one air change. In guest rooms with a *networked guest room control system*, the purge cycle shall be completed within 60 minutes prior to the time the room is scheduled to be occupied. Where guest rooms are not connected to a *networked guest room control system*, the preoccupancy purge cycle shall occur daily.

Add [JO] following the section number to indicate that Section 8.3.4 is a jurisdictional option:

8.3.4 [JO] Soil-Gas Control. Soil-gas entry into *enclosed spaces* that are immediately above crawlspaces, slabs-on-grade, and basement slabs shall be controlled in accordance with Sections 8.3.4.1 or 8.3.4.2.

Chair will add text of Sections 8.3.4.1 and 8.3.4.2 as currently published.