

Public Review Draft

Proposed Addendum n to Standard 189.1-2020

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

First Public Review (December 2021)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

This addendum removes references to health care facilities and health care spaces from 189.1 in cases where they are covered by language in 189.3. There is no cost associated with this change, and this change should not affect the enforcement of these provisions. This addendum is not intended to make substantive changes to any of the provisions when considering 189.1 and 189.3 together.

[Note to Reviewers: This addendum makes proposed changes to the 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 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 189.1-2020

Revise Sections 8.3.1, 8.3.1.1, and 8.3.1.3 as follows

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 Rp-Ra Option in Standard 170 shall be used.

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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.~~

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Revise Section 8.5.1.1 as follows:

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.