



ADDENDA

**ANSI/ASHRAE Addendum c to
ANSI/ASHRAE Standard 62.2-2016**

Ventilation and Acceptable Indoor Air Quality in Residential Buildings

Approved by the ASHRAE Standards Committee on June 22, 2019; by the ASHRAE Technology Council on June 26, 2019; and by the American National Standards Institute on June 27, 2019.

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FOREWORD

Addendum c aims to minimize the potential for formulating variable ventilation control strategies that could result in substantial underventilation for noticeable periods of time.

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 c to Standard 62.2-2016

Revise Section 4.5 as shown.

4.5 Variable Mechanical Ventilation. Dwelling-unit mechanical ventilation systems designed to provide variable ventilation shall comply with Section 4.5.1, 4.5.2, or 4.5.3. Sections 4.5.2 and 4.5.3 also require compliance with Normative Appendix C and require verification with supporting documentation from the manufacturer, designer, or specifier of the ventilation control system that the system meets the requirements of these sections. ~~Where the dwelling-unit ventilation rate varies based on occupancy, occupancy shall be determined by occupancy sensors or by an occupant programmable schedule. Tracking or scheduling of occupancy is permitted.~~

4.5.1 Short-Term Average Ventilation. To comply with this section, a variable ventilation system shall be installed to provide an average dwelling-unit ventilation rate over each consecutive period of three hours or less ~~any three-hour period~~ that is greater than or equal to Q_{fan} as calculated using Section 4.1, and shall not provide a ventilation rate of zero over any three-hour interval.

4.5.2 Scheduled Ventilation. This section ~~may~~ shall only be used when one or more fixed patterns of designed ventila-

tion are known at the time compliance to this standard is being determined. Such patterns include those both clock-driven and driven by typical meteorological data. Compliance with this section can be demonstrated with either Section 4.5.2.1 or 4.5.2.2.

4.5.2.1 Annual Average Schedule. An annual schedule of ventilation complies with this section when the annual average relative exposure ~~during occupied periods~~ is no more than unity one, and the peak relative exposure R_i shall not exceed five (5) for any time step, as calculated in Normative Appendix C.

4.5.2.2 Block Scheduling. The schedule of ventilation complies with this section if it is broken into blocks of time and each block individually has an average relative exposure during occupied periods that is no more than unity one as calculated in Normative Appendix C. All blocks shall end with a relative exposure less than or equal to one.

4.5.2.2.1 Short Blocks. ~~For each block that is less than 2 days in duration but does not meet the requirements of Section 4.5.1, the procedure in Normative Appendix C shall be run multiple times. For any runs after the first run, the relative exposure at the end of the prior run shall be used as the initial condition in the current run. The block complies if the average relative exposure during occupied periods in the final run is no more than unity. Blocks that are less than 18 hours in duration must be run at least 3 times. Other blocks must be run at least twice.~~

4.5.3 Real-Time Control. A real-time ventilation controller complies with this section when it is designed to adjust the ventilation system based on real-time input to the ventilation calculations so that the average relative exposure during occupied periods is no more than one unity, and the peak relative exposure R_i shall not exceed 5 for any time step, as calculated in Normative Appendix C. The averaging period shall be at least one day but no more than one year and shall be based on simple, recursive or running average, but not extrapolation.

For the purposes of calculating average relative exposure, a dwelling unit is permitted to be treated as unoccupied during a time step only if it is unoccupied for the entire time step.

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.

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