



ASHRAE STANDARD

Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

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This standard is under continuous maintenance 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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site, <http://www.ashrae.org>, or in paper form from the Manager of Standards. The latest edition of an ASHRAE Standard may be purchased from ASHRAE Customer Service, 1791 Tullie Circle, NE, Atlanta, GA 30329-2305. E-mail: orders@ashrae.org. Fax: 404-321-5478. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada).

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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.

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- b. participation in the next review of the Standard,
- c. offering constructive criticism for improving the Standard, or
- d. permission to reprint portions of the Standard.

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In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(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 adds an appendix to allow some optional pathways that will only be applicable for previously occupied buildings. The major focus is to overcome the barriers that exist to application of the standard in existing buildings. Specifically, many requirements that are easy to meet at the original design and construction stage may be very difficult or extremely expensive at the retrofit stage, such as the selection and installation of conforming equipment. To that end, this appendix offers some options that allow a bit more flexibility in this building population. The biggest conceptual change is to provide alternative methods for meeting the local exhaust requirement in kitchens or baths that do not have what is currently required by Standard 62.2. As stated in Section C1, compliance with the remainder of the standard is still required when using Appendix C.

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 e to Standard 62.2-2007

Add a new Normative Appendix C as shown below.

(This is a normative appendix and is part of the standard.)

NORMATIVE APPENDIX C— EXISTING BUILDINGS

C1. SUMMARY

This appendix provides alternative compliance options for existing buildings and the associated ventilation equipment in existing buildings. This section is intended for buildings that have already been occupied without meeting the provisions of this standard. The authority having jurisdiction shall decide under what circumstances the provisions of this appendix are applicable. Use of this appendix as an alternate to sections of the main body of the standard does not provide an exemption from compliance with the remainder of the standard.

C2. WHOLE-BUILDING MECHANICAL VENTILATION RATE

The required mechanical ventilation rate, Q_{fan} , shall be the rate in Section 4.1 plus the required additional airflow calculated in accordance with Section C3. If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.3.

C3. LOCAL EXHAUST

When replacing equipment and for any kitchens and bathrooms being renovated, all Section 5 requirements shall be met. For other existing kitchens and bathrooms, when the existing equipment does not meet those requirements, this section may be used to overcome insufficient exhaust airflow for each room requiring local exhaust by adjusting the whole-building ventilation rate in Section C2.

C3.1 Initial Room Airflow Deficit. The airflow deficit for each bathroom or kitchen is the required airflow from Table 5.1 less the airflow rating from Section C4.2 of the exhaust equipment. If there is no exhaust device or if the existing device can neither be measured nor rated, the exhaust device airflow shall be assumed to be zero.

C3.2 Window Opening Credit. If the authority having jurisdiction determines that window operation is a locally permissible method of providing local exhaust, the deficit may be reduced as follows: if there is an operable window in the room, the airflow deficit may be reduced by 20 cfm (10 L/s).

C3.3 Required Additional Airflow. The total airflow deficit is the sum of all the final airflow deficits from all bathrooms and kitchens. The required additional airflow is equal to one-quarter of the total airflow deficit.

C4. AIR-MOVING EQUIPMENT

For all replacement equipment and for any equipment in a room being renovated, all Section 6 and 7 requirements shall be met. For existing equipment, the following exceptions may be used.

C4.1 Selection, Installation, and Sound Rating. Sections 7.1 and 7.2 are not applicable to existing local exhaust fans being retained via the alternate compliance path of this appendix.

C4.2 Airflow Rating. If airflow ratings do not exist or the duct sizing requirements of Section 7.3 cannot be verified, the airflow rate shall be measured and the alternative procedure of Section 7.3 using the airflow rating at 0.25 in. w.c. (62.5 Pa) may not be used. If airflow ratings for the existing equipment are available at 0.1 in. w.c. (25 Pa) but not at 0.25 in. w.c. (62.5 Pa), those values may be used provided they are reduced by 25%.

**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.