



# ADDENDA

**ANSI/ASHRAE Addendum e to  
ANSI/ASHRAE Standard 62.2-2022**

# Ventilation and Acceptable Indoor Air Quality in Residential Buildings

Approved by the ASHRAE and the American National Standards Institute on April 28, 2023.

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 ([www.ashrae.org/continuous-maintenance](http://www.ashrae.org/continuous-maintenance)).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website ([www.ashrae.org](http://www.ashrae.org)) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: [orders@ashrae.org](mailto:orders@ashrae.org). Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to [www.ashrae.org/permissions](http://www.ashrae.org/permissions).

© 2023 ASHRAE

ISSN 1041-2336



**ASHRAE Standing Standard Project Committee 62.2**

**Cognizant TC: 4.3, Ventilation Requirements and Infiltration**

**SPLS Liaison: Lawrence C. Markel**

James C. Moore, III*, <i>Chair</i>	Philip W. Fairey*	David E. Jacobs*	Joseph J. Pessa
Marian Goebes*, <i>Vice-Chair</i>	Paul Francisco*	Ed Janowiak*	Paul H. Raymer*
Jordan D. Clark*, <i>Secretary</i>	Patricia M. Fritz*	Richard J. Karg*	Armin Rudd*
Nick H. Agopian*	Stephen E. Gatz	Vladimir Kochkin	John S. Saunders*
Michael D. Blanford	Paul Grahovac	Tae Kwon*	Max H. Sherman*
Randall L. Cooper*	Gregg Gress*	Richard E. Lambert, Jr.	James T. VerShaw
Shannon Corcoran*	Henry T. Greist	Shichao Liu*	Iain S. Walker*
Roy R. Crawford*	Charles A. Holly*	Kimberly Llewellyn*	Ted A. Williams*
David C. Delaquila*	Nicholas Hurst	Kashif Nawaz	Sina Yousefi*
Steven J. Emmerich*	Mark C. Jackson*	Collin Olson*	

\* Denotes members of voting status when the document was approved for publication

---

**ASHRAE STANDARDS COMMITTEE 2022–2023**

Susanna S. Hanson, <i>Chair</i>	Phillip A. Johnson	Lawrence C. Markel	Christopher J. Seeton
Jonathan Humble, <i>Vice-Chair</i>	Srinivas Katipamula	Patrick C. Marks	Christian R. Taber
William P. Bahnfleth	Gerald J. Kettler	Margaret M. Mathison	Paolo M. Tronville
Thomas E. Cappellin	Jay A. Kohler	Kathleen Owen	William F. Walter
Douglas D. Fick	Cesar L. Lim	Gwelen Paliaga	Steven C. Sill, <i>BOD ExO</i>
Patricia Graef	Paul A. Lindahl, Jr.	Karl L. Peterman	Sarah E. Maston, <i>CO</i>
Jaap Hogeling	James D. Lutz	Justin M. Prosser	
Jennifer A. Isenbeck	Julie Majurin	David Robin	

Connor Barbaree, *Senior Manager of Standards*

---

**SPECIAL NOTE**

This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as “substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution.” Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

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,
- offering constructive criticism for improving the Standard, or
- permission to reprint portions of the Standard.

**DISCLAIMER**

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

**ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS**

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

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

*Addendum e removes the option of providing an openable window in place of mechanical exhaust within toilet rooms for new construction. The committee's concerns for addressing both odor and bioaerosols associated with human waste resulted in this addendum, which will align Standard 62.2 with the International Residential Code's requirement for mechanical ventilation of toilet rooms.*

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

### Addendum e to Standard 62.2-2022

**Revise Section 3.1 as shown. The remainder of Section 3.1 is unchanged.**

**toilet room:** a room with a door containing a toilet, water closet, urinal, or similar sanitary plumbing fixture and, frequently, a lavatory but not a bathtub, shower, spa, or similar source of moisture.

**Revise Section 5 as shown below. The remainder of Section 5 is unchanged.**

## 5. LOCAL EXHAUST

**5.1 Local Mechanical Exhaust.** A local mechanical exhaust system shall be designed and installed in each kitchen, bathroom, and toilet room, ~~and bathroom~~ and shall be one of either

- a. a demand controlled local mechanical exhaust system meeting the requirements of Section 5.2 or
- b. a continuous local mechanical exhaust system meeting the requirements of Section 5.3.

**Exception to b:** Nonenclosed kitchens shall be provided with a demand controlled local mechanical exhaust system meeting the requirements of Section 5.2.

**Exception to 5.1:** Alternative ventilation: Other design methods that provide the required minimum exhaust airflow rates shall be permitted when approved by a licensed design professional.

[ . . . ]

**Table 5-1 Demand Controlled Local Exhaust Airflow Rates**

Application	Airflow
Enclosed kitchen	<ul style="list-style-type: none"> <li>• Vented range hood (including appliance-range hood combinations): 100 cfm (50 L/s)</li> <li>• Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s) or a capacity of 5 ach</li> </ul>
Nonenclosed kitchen	<ul style="list-style-type: none"> <li>• Vented range hood (including appliance-range hood combinations): 100 cfm (50 L/s)</li> <li>• Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s)</li> </ul>
<u>Bathroom or toilet room</u>	50 cfm (25 L/s)

**Table 5-2 Continuous Local Exhaust Airflow Rates**

Application	Airflow
Enclosed kitchen	5 ach, based on kitchen volume
<u>Bathroom or toilet room</u>	20 cfm (10 L/s)

**Revise Section 6.5 as shown.**

**6.5 Ventilation Opening Area.** Spaces shall have ventilation openings as listed in the following subsections. Such openings shall meet the requirements of Section 6.6.

**Exception to 6.5:** Attached dwelling units and spaces that meet the local ventilation requirements set for bathrooms in Section 5.

**6.5.1 Habitable Spaces.** Each habitable space shall be provided with ventilation openings with an openable area not less than 4% of the floor area or less than 5 ft<sup>2</sup> (0.5 m<sup>2</sup>).

**6.5.2 Toilet Rooms and Utility Rooms.** ~~Toilet rooms and utility rooms~~ shall be provided with natural ventilation openings with an openable area not less than 4% of the room floor area or less than 1.5 ft<sup>2</sup> (0.15 m<sup>2</sup>).

**Exceptions to 6.5.2:**

- 1- Utility rooms with a dryer exhaust duct.
- 2- ~~Toilet compartments in bathrooms.~~

**Revise Section 7.3 as shown.**

**7.3 Sound Ratings for Fans.** Ventilation fans shall be rated for sound at no less than the minimum airflow rate required by this standard as noted below. These sound ratings shall be at a minimum of 0.1 in. of water (25 Pa) static pressure in accordance with the HVI procedures referenced in Section 7.1.

**Exception to 7.3:** HVAC air handlers and remote mounted fans need not meet sound requirements. To be considered for this exception, a remote mounted fan ~~must shall~~ be mounted outside the habitable spaces, bathrooms, toilet rooms, and hallways, and there ~~must shall~~ be at least 4 ft (1 m) of ductwork between the fan and the intake grille.

**7.3.1 Dwelling-Unit Ventilation or Continuous Local Exhaust Fans.** These fans shall be rated for sound at a maximum of 1.0 sone.

**7.3.2 Demand Controlled Local Exhaust Fans.** Bathroom exhaust fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sones. Kitchen exhaust fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sones at one or more airflow settings greater than or equal to 100 cfm (47 L/s). Exhaust fans serving only toilet rooms shall not be subject to sound performance requirements.

**Exception to 7.3.2:** Fans with a minimum airflow setting exceeding 400 cfm (189 L/s) need not comply.

**Revise Normative Appendix A as shown. The remainder of Appendix A is unchanged.**

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

**NORMATIVE APPENDIX A  
EXISTING BUILDINGS**

**A1. SUMMARY**

This appendix provides an alternative compliance path 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 AHJ shall decide under what circumstances the provisions of this appendix are applicable. Use of this appendix alternate to sections of the main body of the standard does not provide an exemption from compliance with the remainder of the standard.

[ . . . ]

**A3. LOCAL EXHAUST**

When replacing equipment, all Section 5 requirements shall be met. ~~When renovating a toilet room in a non-attached dwelling unit, or renovating a kitchen or bathroom and for any kitchens and bathrooms being renovated,~~ all Section 5 requirements shall be met. For other cases, in existing kitchens and bathrooms, when the existing equipment does not meet those requirements, this section ~~may shall~~ be used to compensate for insufficient exhaust airflow for each room requiring local exhaust by adjusting the dwelling-unit mechanical ventilation rate in Section A2.

**A3.1 Initial Room Airflow Deficit.** The airflow deficit for each bathroom shall be 50 cfm (24 L/s), less the airflow rating from Section A4.2 of the exhaust equipment. The airflow deficit for each kitchen shall be 100 cfm (47 L/s), less the airflow rating from Section A4.2 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. The airflow deficit shall be zero for a kitchen or bathroom ~~or kitchen~~ if a new exhaust ventilation device meeting the requirements of Section 5.2 or 5.3 is installed in the kitchen or bathroom ~~or kitchen~~.

**A3.2 Window Opening Credit.** ~~If~~ Where the local AHJ determines that window operation is a permissible method of providing local exhaust, ~~the deficit may be reduced as follows: if~~ and there is an operable window in the room, the airflow deficit ~~may shall be permitted to~~ be reduced by 20 cfm (10 L/s).

**A3.3 A3.3 Required Additional Airflow.** The total airflow deficit is the sum of all the final airflow deficits from all kitchens and ~~bathrooms and kitchens~~. The required additional dwelling-unit mechanical ventilation airflow is equal to one-quarter of the total airflow deficit.

[ . . . ]

## **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.

**ASHRAE · 180 Technology Parkway · Peachtree Corners, GA 30092 · [www.ashrae.org](http://www.ashrae.org)**

### **About ASHRAE**

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.

To stay current with this and other ASHRAE Standards and Guidelines, visit [www.ashrae.org/standards](http://www.ashrae.org/standards), and connect on LinkedIn, Facebook, Twitter, and YouTube.

### **Visit the ASHRAE Bookstore**

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous version. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

### **IMPORTANT NOTICES ABOUT THIS STANDARD**

**To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit [www.ashrae.org/standards](http://www.ashrae.org/standards) to download them free of charge.**

**Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.**