ADDENDA

ANSI/ASHRAE Addenda k and m to
ANSI/ASHRAE Standard 62.2-2010

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

Approved by the ASHRAE Standards Committee on January 21, 2012; by the ASHRAE Board of Directors on January 25, 2012; and by the American National Standards Institute on February 24, 2012.

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FOREWORD

This addendum clarifies the difference between intermittent whole-house ventilation and intermittently operating local exhaust ventilation by adding a definition for intermittent ventilation and revising the language in Sections 5 and 7 to refer to demand-controlled local exhaust.

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

Addendum k to Standard 62.2-2010

[Add a new definition in Section 3 as follows.]

3. DEFINITIONS

intermittent ventilation: intermittently operated whole-building ventilation that is automatically controlled.

[Revise Sections 5.1 and 5.2 as follows.]

5. LOCAL EXHAUST

5.1 Local Mechanical Exhaust. A local mechanical exhaust system shall be installed in each kitchen and bathroom. Each local ventilation system shall be either one of the following two:

a. ~~an intermittent~~ demand-controlled mechanical exhaust system meeting the requirements of Section 5.2 or

b. a continuous mechanical exhaust system meeting the requirements of Section 5.3.

Exception: *Alternative Ventilation*. Other design methods may be used to provide the required exhaust rates when approved by a licensed design professional.

5.2 ~~Intermittent~~ Demand-Controlled ~~Local~~ Mechanical Exhaust. A~~n intermittently operating,~~ local mechanical exhaust system shall be designed to be operated as needed by the occupant.

5.2.1 Control and Operation. Automatic ~~C~~control devices such as, but not limited to, the following are permissible provided they do not impede manual ON-OFF occupant control: shut-off timers, occupancy sensors, multiple-speed fans, combined switching, IAQ sensors, etc.

5.2.2 Ventilation Rate. The minimum airflow rating shall be at least the amount indicated in Table 5.1.

[Revise Table 5.1 as shown at the bottom of the page.]

[Revise Section 7.2 as follows.]

7.2 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.

7.2.1 Whole-Building Ventilation or Continuous ~~Ventilation~~ Local Exhaust Fans. These fans shall be rated for sound at a maximum of 1.0 sone.

7.2.2 ~~Intermittent~~ Demand-Controlled Local Exhaust Fans. Fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sones, unless their maximum rated airflow exceeds 400 cfm (200 L/s).

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

TABLE 5.1 ~~Intermittent~~ Demand-Controlled Local Ventilation Exhaust Airflow Rates

Application	Airflow	Notes
Kitchen	100 cfm (50 L/s)	Vented range hood (including appliance-range hood combinations) required if exhaust fan flow rate is less than 5 kitchen air changes per hour.
Bathroom	50 cfm (25 L/s)	

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FOREWORD

This addendum deletes the current Section 4.1.2, "Alternative Ventilation," which allows for "other methods" to be used to provide the required ventilation rates but provides no guidance on how to do that. The addendum adds a new Section 4.6, "Equivalent Ventilation," which, along with a new definition for annual exposure*, provides a basis for alternative ventilation system designs by requiring that they provide the same or lower annual exposure as would be provided by complying with Section 4.1. This change continues to allow for the application of innovative ventilation design and control options (such as natural ventilation) while providing specific guidance for the basis of their equivalence to the whole-building ventilation requirements.*

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

Addendum m to Standard 62.2-2010

[Add the following new definition to Section 3.]

3. DEFINITIONS

annual exposure: the time-integrated concentration taken over one year that would occur for a constant source strength.

[Revise Section 4 as shown below.]

4. WHOLE-BUILDING VENTILATION

A whole-building ventilation system, complying with either Sections 4.1 through 4.5 or Section 4.6, shall be installed.

[Delete Section 4.1.2 and renumber Section 4.1.3 as shown below.]

~~**4.1.2 Alternative Ventilation**. Other methods may be used to provide the required ventilation rates (of Tables 4.1a and 4.1b) when approved by a licensed design professional.~~

4.1.2~~3~~ Infiltration Credit. Section 4.1 includes a default credit for ventilation provided by infiltration of 2 cfm per 100 ft^2 (10 L/s per 100 m^2) of occupiable floor space. For buildings built prior to the application of this standard, when excess infiltration has been measured in accordance with *ANSI/ASHRAE Standard 136, A Method of Determining Air Change Rates in Detached Dwellings,*[1] the rates in Section 4.1 may be decreased by half of the excess of the rate calculated from Standard 136 that is above the default rate. No increase to the rate in Section 4.1 is required if measured infiltration in accordance with Standard 136 is lower than the default rate.

[Add a new Section 4.6 as shown below.]

4.6 Equivalent Ventilation. A whole-building ventilation system shall be designed and operated in such a way as to provide the same or lower annual exposure as would be provided by complying with Section 4.1. The calculations shall be based on a single zone with constant contaminant emission rate. The manufacturer, specifier, or designer of the equivalent ventilation system shall certify that the system meets this intent and provide supporting documentation.

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.