ANSI/ASHRAE Addenda b, c, e, g, h, i, and l to
ANSI/ASHRAE Standard 62.2-2010

ASHRAE ADDENDA

2011 Supplement

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

See Appendix for approval dates.

These addenda were 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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site (www.ashrae.org) or in paper form from the Manager of Standards.

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ANSI/ASHRAE Addenda to ANSI/ASHRAE Standard 62.2-2010, Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

NOTE

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FOREWORD

This addendum adds the option of using a filter tested in accordance with AHRI Standard 680-2009, which relies on procedures specified in ANSI/ASHRAE Standard 52.2-2007. Note: This change is responsive to interpretation request IC 62.2-2007-7 currently posted on the ASHRAE Web site at www.ashrae.org/technology/page/121.

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 b to Standard 62.2-2010

Revise Section 6.7 as follows:

6.7 Minimum Filtration. Mechanical systems that supply air to an occupiable space through ductwork exceeding 10 ft (3 m) in length and through a thermal conditioning component, except evaporative coolers, shall be provided with a filter having a designated minimum efficiency of MERV 6 or better when tested in accordance with *ANSI/ASHRAE Standard 52.2, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size*~~,~~[8] or a minimum Particle Size Efficiency of 50% in the 3.0–10 μm range in accordance with AHRI Standard 680, *Performance Rating of Residential Air Filter Equipment*.[14] The system shall be designed such that all recirculated and mechanically supplied outdoor air is filtered before passing through the thermal conditioning components. The filter shall be located and installed in such a manner as to facilitate access and regular service by the owner.

Add a new reference to Section 9 as follows:

14. AHRI Standard 680-2009, *Performance Rating of Residential Air Filter Equipment*. Air-Conditioning, Heating, and Refrigerating Institute, Arlington, VA.

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FOREWORD

This addendum clarifies the requirement for the static pressure at which fans are rated for sound in response to the interpretation request IC 62.2-2007-8 available on the ASHRAE Web site at www.ashrae.org/technology/page/121.

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 c to Standard 62.2-2010

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. These sound ratings shall be at a minimum of 0.1 in. w.c. (25 Pa) static pressure in accordance with the HVI procedures referenced in Section 7.1.

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FOREWORD

This addendum requires HVAC systems covered by Section 6.7 to be designed to accommodate the pressure drop imposed on them by the installed filters to ensure that sufficient airflow is not inhibited. The intent is similar to a requirement that existed in Standard 62.2-2007 without imposing a specific limit on the clean-filter pressure drop. This change also includes a requirement to provide the needed information on design airflow and maximum allowable clean-filter pressure drop so that the filter can be replaced properly. Since the needed information on clean-filter pressure drop is not routinely available at present, the requirement will not take effect until January 1, 2014.

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 e to Standard 62.2-2010

Add a new Section 6.7.1 as shown:

6.7.1 Filter Pressure Drop. New mechanical and distribution systems covered by Section 6.7, installed after January 1, 2014, shall be designed to accommodate the clean-filter pressure drop as rated using AHRI Standard 680, *Performance Rating of Residential Air Filter Equipment,*[14] for the system design flow. The filter locations shall be labeled with the design airflow and maximum allowable clean-filter pressure drop. The label shall be visible to a person replacing the filter.

Add a new reference to Section 9 as follows:

14. AHRI Standard 680-2009, *Performance Rating of Residential Air Filter Equipment*. Air-Conditioning, Heating, and Refrigerating Institute, Arlington, VA.

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FOREWORD

This addendum removes limits on the amount of net exhaust flow of whole-house mechanical ventilation systems in hot, humid climates and the amount of net supply flow in very cold climates. The committee reviewed Section 4.6, "Restrictions on System Type" and decided the restrictions were not justified by recent field experience. There was general agreement that the problems in both hot/humid and cold climates were caused by specific and easily avoidable errors in envelope design that could not be solved by the system restrictions in Section 4.6.

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Addendum g to Standard 62.2-2010

[Delete Section 4.6 as shown.]

~~**4.6 Restrictions on System Type.** Use of certain ventilation strategies is restricted in specific climates as follows.~~

~~**4.6.1 Hot, Humid Climates.** In hot, humid climates, whole-house mechanical net exhaust flow shall not exceed 7.5 cfm per 100 ft2 (35 L/s per 100 m2). (See Section 8 for a listing of hot, humid U.S. climates.)~~

~~**4.6.2 Very Cold Climates.** Mechanical supply systems exceeding 7.5 cfm per 100 ft2 (35 L/s per 100 m2) shall not be used in very cold climates. (See Section 8 for a listing of very cold U.S. climates.)~~

~~**Exception:** These ventilation strategies are not restricted if the authority having jurisdiction approves the envelope design as being moisture resistant.~~

[Revise Section 8 as follows.]

(Note: The third sentence in Section 8 was corrected through an erratum. See errata sheet for 62.2-2010 posted on the ASHRAE Web site at http://www.ashrae.org/technology/page/120.)

8. CLIMATE DATA

~~Very cold and hot, humid climates are shown graphically in Figure 8.1 for North America. Table 8.1 lists U.S. cities that have hot, humid climates.~~ The IECC 2004 climate zones for U.S. locations are shown in Figure 8.1~~2~~. ~~Table 8.2 lists cities that have very cold climates.~~

[Delete Figure 8.1 and Tables 8.1 and 8.2 as shown on next page.]

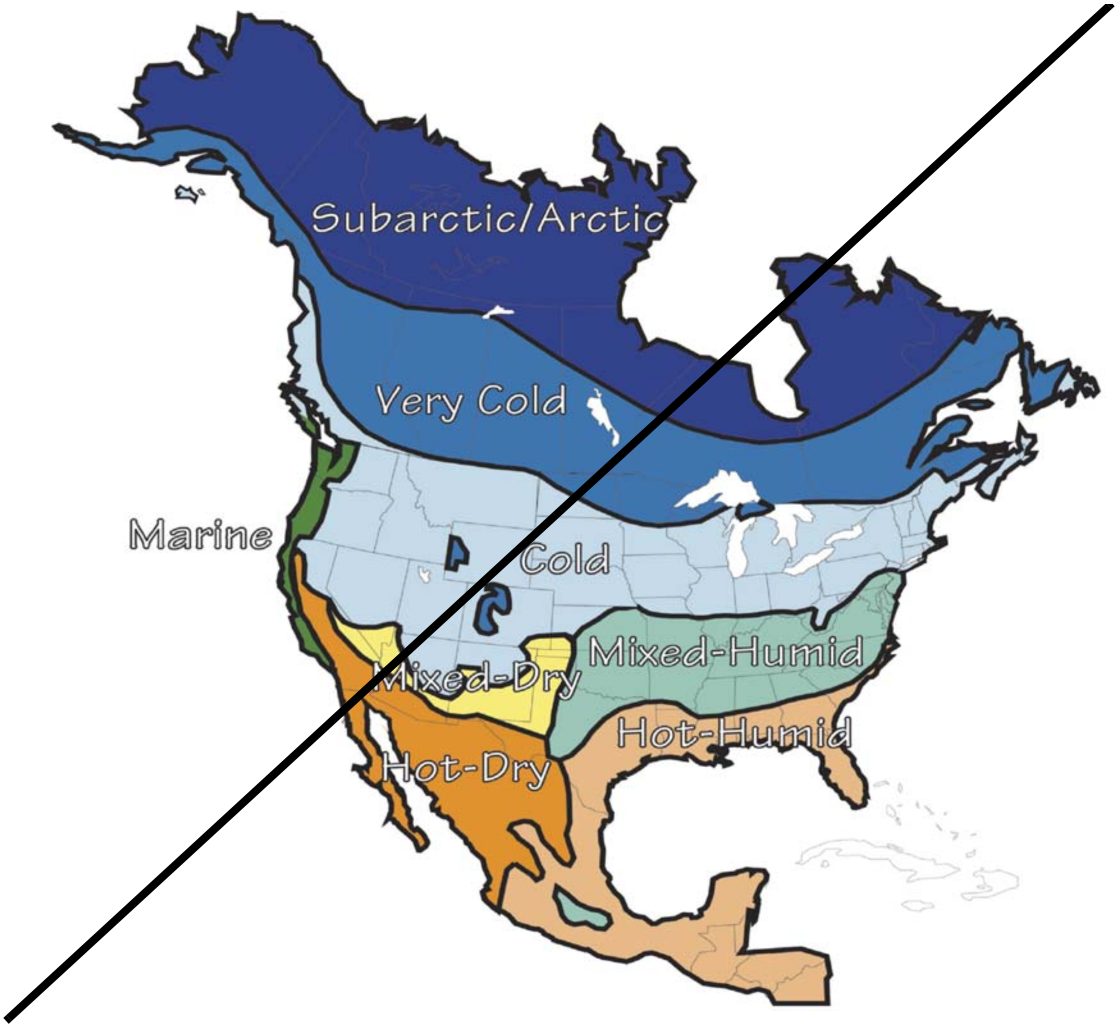

Figure 8.1 Map identifying very cold and hot, humid climatic zones for continental North America.

TABLE 8.1 Hot, Humid U.S. Climates

City, State	
Mobile, AL	Baton Rouge, LA
Selma, AL	Lake Charles, LA
Montgomery, AL	New Orleans, LA
Texarkana, AR	Shreveport, LA
Apalachicola, FL	Biloxi, MS
Daytona, FL	Gulfport, MS
Jacksonville, FL	Jackson, MS
Miami, FL	Wilmington, NC
Orlando, FL	Charleston, SC
Pensacola, FL	Myrtle Beach, SC
Tallahassee, FL	Austin, TX
Tampa, FL	Beaumont, TX
Savannah, GA	Brownsville, TX
Valdosta, GA	Corpus Christi, TX
Hilo, HI	Dallas, TX
Honolulu, HI	Houston, TX
Lihue, HI	Galveston, TX
Kahului, HI	San Antonio, TX
	Waco, TX

TABLE 8.2 Very Cold U.S. Climates

City, State
Anchorage, AK
Fairbanks, AK
Caribou, ME
Marquette, MI
Sault Ste. Marie, MI
Duluth, MN
International Falls, MN
Fargo, ND
Grand Forks, ND
Williston, ND

[Renumber Figure 8.2 as shown.]

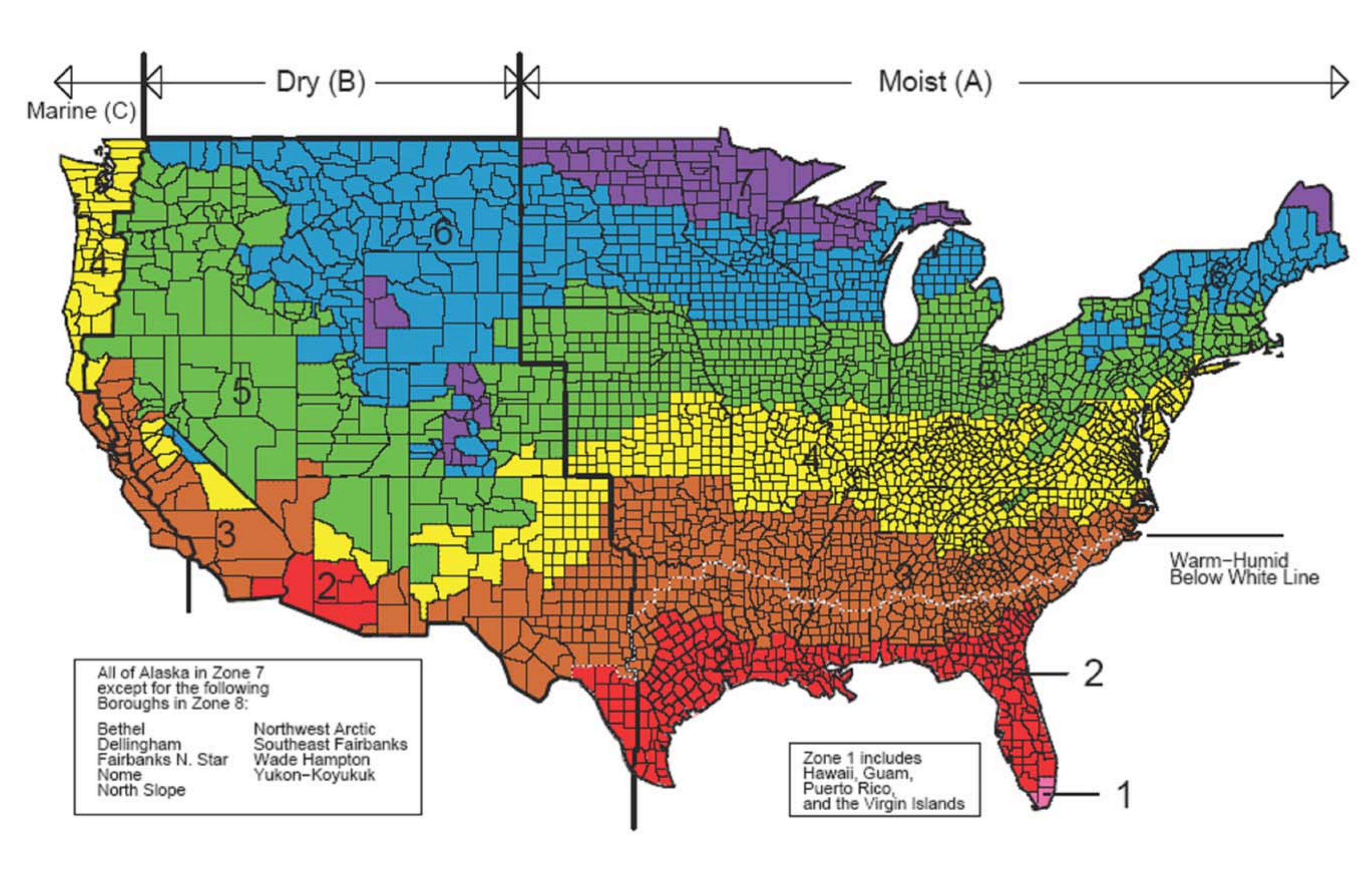

Figure 8.~~2~~1 Climate zones for U.S. locations.

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FOREWORD

This change to Normative Appendix A provides clarifications, with one exception (the Section A2 addition). All the other changes (except the A2 addition) are minor, and clarify rather than alter the intended meaning. Previously Appendix A did not indicate whether to apply the infiltration credit, Section 4.1.3, before or after Section A3. In some cases, the order in which Sections A3 and 4.1.3 are applied will affect the final whole-building ventilation rate (in cases where Section 4.1.3 zeros out the whole-building ventilation rate). Section A2 of this addendum now states the required order (Section A3 before Section 4.1.3).

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

Addendum h to Standard 62.2-2010

[Revise Normative Appendix A as follows:]

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

NORMATIVE APPENDIX A—EXISTING BUILDINGS

A1. SUMMARY

This appendix provides <u>an</u> alternative compliance ~~options~~ <u>path</u> 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.

A2. 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 A3. 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. <u>In these cases, Section A3 shall be applied before Section 4.1.3 when determining the final mechanical ventilation rate.</u>

A3. 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~~ <u>compensate for</u> insufficient exhaust airflow for each room requiring local exhaust by adjusting the whole-building ventilation rate in Section A2.

A3.1 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 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.

A3.2 A3.2 Window Opening Credit. If the <u>local</u> 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).

A3.3 A3.3 Required Additional Airflow. The total airflow deficit is the sum of all the final airflow deficits from all bathrooms and kitchens. The required additional <u>whole-building ventilation</u> airflow is equal to one-quarter of the total airflow deficit.

A4. 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.

A4.1 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.

~~**A4.2 Airflow Rating.** If airflow ratings do not exist or the duct sizing requirements of Section 5.4 cannot be verified, the airflow rate shall be measured and the alternative procedure of Section 5.4 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%.~~

<u>**A4.2 Airflow Rating**</u>

<u>**A4.2.1** Existing fans intended for use as whole-building ventilation must be measured consistent with the requirements of Section 4.3.</u>

<u>**A4.2.2** Existing fans intended for local exhaust only shall be measured consistent with the requirements of Section 5.4.</u>

<u>**Exception:** If the fan flow rate cannot be measured and fan airflow ratings at 0.25 in. w.c. (62.5 Pa) are not available, but fan airflow ratings are available for 0.1 in. w.c. (25 Pa) and the duct sizing requirements of Table 5.3 can be verified, those ratings may be used, provided they are reduced by 25%.</u>

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FOREWORD

The current methodology for intermittent ventilation ignored the impact of infiltration on the equivalent annual dose calculation which is the basis of this requirement. This new methodology assumes an infiltration rate of 0.02 cfm/sq. ft. of floor area and an occupancy area of 400 sq. ft./person. Higher occupancy areas and/or higher infiltration rates would result in lower equivalent annual doses than the proposed new methodology. In general, this new methodology results in lower allowable intermittent ventilation rates.

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 i to Standard 62.2-2010

Delete the current Section 4.5 and Table 4.2 and replace them as shown.

~~**4.5 Delivered Ventilation.** The delivered ventilation rate shall be calculated as the larger of the total supply or total exhaust and shall be no less than specified in Section 4.1 during each hour of operation.~~

~~**Exception:** The effective ventilation rate of an intermittent system is the combination of its delivered capacity, fractional on-time, cycle time, and the ventilation effectiveness from Table 4.2. The fan flow rate required to achieve an effective ventilation rate that is equivalent to the continuous ventilation requirement shall be calculated from the following equation:~~

$$\sout{Qf = Qr/(\varepsilon f)} \qquad \text{~~(4.2)~~}$$

~~where~~

~~*Qf* = fan flow rate during the on-cycle~~
~~*Qr* = ventilation air requirement (from Table 4.1a or 4.1b)~~
~~*Tcyc* = fan cycle time, defined as the total time for one on-cycle and one off-cycle (used in Table 4.2)~~
~~*ε* = ventilation effectiveness (from Table 4.2)~~
~~*f* = fractional on-time, defined as the on-time for one cycle divided by the cycle time~~

~~See Chapter 10 of Guideline 242 for an example of this calculation.~~

~~For values not listed, use the next higher value for Cycle Time or the next lower value for Fractional On-Time. Linear interpolation is allowed for intermediate Fractional On-Times.~~

~~The maximum allowed Cycle Time is 24 h and the mini-~~

~~**TABLE 4.2 Ventilation Effectiveness for Intermittent Fans**~~

~~Fractional On-Time, *f*~~	~~Cycle Time, *Tcyc* (h)~~			
	~~0 to 4~~	~~8~~	~~12~~	~~24~~
~~0.1~~	~~1.00~~	~~0.79~~	~~*~~	~~*~~
~~0.2~~	~~1.00~~	~~0.84~~	~~0.56~~	~~*~~
~~0.3~~	~~1.00~~	~~0.89~~	~~0.71~~	~~*~~
~~0.4~~	~~1.00~~	~~0.92~~	~~0.81~~	~~0.20~~
~~0.5~~	~~1.00~~	~~0.94~~	~~0.87~~	~~0.52~~
~~0.6~~	~~1.00~~	~~0.97~~	~~0.92~~	~~0.73~~
~~0.7~~	~~1.00~~	~~0.98~~	~~0.96~~	~~0.86~~
~~0.8~~	~~1.00~~	~~0.99~~	~~0.98~~	~~0.94~~
~~0.9~~	~~1.00~~	~~1.00~~	~~1.00~~	~~0.99~~
~~1.0~~	~~1.00~~	~~1.00~~	~~1.00~~	~~1.00~~

~~*Condition not allowed since no amount of intermittent ventilation will provide equivalent ventilation.~~

4.5 Delivered Ventilation Rate. The delivered ventilation rate shall be calculated as the larger of the average total supply or average total exhaust flow rate during each hour of operation and shall be no less than specified in Section 4.1.

4.5.1 Intermittent Ventilation. When the required average ventilation rate is not supplied during every hour of operation, the delivered ventilation is deemed sufficient when the effective ventilation rate complies with this section. The effective ventilation rate of an intermittent system is the combination of the fan flow rate during the on-cycle, the fractional on-time, the cycle time, and the ventilation effectiveness as defined below. The fan flow rate required to achieve an effective ventilation rate that is equivalent to the continuous ventilation requirement is based on the principle of equivalent dose and shall be calculated from the following equation:

$$Q_{on} = Q_{fan}/(\varepsilon f) \qquad (4.2)$$

where

Q_{on} = fan flow rate during the on-cycle
Q_{fan} = continuous ventilation air requirement (from Table 4.1a or 4.1b or Equation 4.1a or 4.1b)
ε = ventilation effectiveness (from Table 4.2)
f = fractional on-time, defined as the on-time for one cycle divided by the cycle time

Table 4.2 also requires the calculation of the required turnover, N, as follows:

$$N = 12.8 \cdot Q_{fan} \cdot T_{cyc}/A_{floor} \qquad \text{(I-P)} \quad (4.3a)$$

where

Q_{fan} = ventilation air requirement (from Table 4.1a or Equation 4.1a), cfm

TABLE 4.2 Ventilation Effectiveness for Intermittent Fans

Fractional On-Time, f	Turnover, N														
	0.0	1.0	1.5	2.0	2.5	3.0	3.5	4.0	5.0	6.0	8.0	12	20	40	100+
0.00	1.00	0.95	0.88	0.78	0.60	0.00	–	–	–	–	–	–	–	–	–
0.05	1.00	0.96	0.90	0.81	0.67	0.41	0.00	–	–	–	–	–	–	–	–
0.10	1.00	0.96	0.91	0.83	0.72	0.55	0.21	0.00	–	–	–	–	–	–	–
0.15	1.00	0.96	0.92	0.85	0.76	0.63	0.44	0.18	0.00	–	–	–	–	–	–
0.20	1.00	0.97	0.93	0.87	0.79	0.69	0.56	0.40	0.03	0.00	–	–	–	–	–
0.25	1.00	0.97	0.94	0.89	0.82	0.74	0.64	0.53	0.26	0.02	0.00	–	–	–	–
0.30	1.00	0.98	0.95	0.90	0.85	0.78	0.71	0.62	0.42	0.24	0.00	–	–	–	–
0.35	1.00	0.98	0.95	0.92	0.87	0.82	0.76	0.69	0.54	0.39	0.14	0.00	–	–	–
0.40	1.00	0.98	0.96	0.93	0.89	0.85	0.80	0.75	0.63	0.52	0.32	0.02	0.00	–	–
0.45	1.00	0.99	0.97	0.94	0.91	0.88	0.84	0.79	0.70	0.61	0.45	0.21	0.00	–	–
0.50	1.00	0.99	0.97	0.95	0.93	0.90	0.87	0.83	0.76	0.69	0.57	0.37	0.13	0.00	0.00
0.60	1.00	0.99	0.98	0.97	0.96	0.94	0.92	0.90	0.86	0.81	0.74	0.61	0.45	0.27	0.14
0.70	1.00	1.00	0.99	0.98	0.98	0.97	0.96	0.94	0.92	0.90	0.85	0.78	0.68	0.55	0.46
0.80	1.00	1.00	1.00	0.99	0.99	0.99	0.98	0.98	0.97	0.96	0.94	0.90	0.85	0.77	0.70
0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	0.98	0.97	0.96	0.93	0.88
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

T_{cyc} = fan cycle time, defined as the total time for one off-cycle and one on-cycle, h

A_{floor} = floor area, ft^2

$$N = 2.51 \cdot Q_{fan} \cdot T_{cyc} / A_{floor} \quad \text{(SI)} \quad (4.3b)$$

where

Q_{fan} = ventilation air requirement (from Table 4.1b or Equation 4.1b), L/s

T_{cyc} = fan cycle time, defined as the total time for one off-cycle and one on-cycle, h

A_{floor} = floor area, m^2

The maximum allowable cycle time is 24 h.

For values not listed in Table 4-2, use the next higher value for N or the next lower value for f. Linear interpolation is allowed.

Switching between periods of intermittent ventilation and continuous or different periods of intermittent ventilation is acceptable. Cycle times and fractional on-times can vary from one intermittent cycle to the next as long as each cycle consists of an off-period followed by an on-period with a ventilation rate that meets the above criteria. If the fan flow rate during the on-cycle varies with time, the average rate during each hour must meet or exceed the intermittent ventilation requirement of Equation 4.2.

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FOREWORD

Carbon monoxide (CO) poisoning leads to hundreds of deaths and many thousands of injuries every year in homes. These CO poisoning events result from a wide range of sources, including automobiles left running in an attached garage and heating system failures as well as from portable generators, power tools, heaters, and cooking devices brought into the home (often during power outages). This problem differs from most other indoor polluting events in that occupants have very little ability to detect the presence of CO.

This addendum adds a requirement for installing a CO alarm and refers to NFPA Standard 720, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, which includes provisions that cover the installation, location, performance, inspection, testing, and maintenance of CO detection and warning equipment.*

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 l to Standard 62.2-2010

Add a new Section 6.9 as follows:

6.9 Carbon Monoxide Alarms. A carbon monoxide alarm shall be installed in each dwelling unit in accordance with NFPA 720, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment,*[XX] and shall be consistent with requirements of applicable laws, codes, and standards.

Add a new reference to Section 9 as follows:

XX. NFPA 720-2009, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment.* National Fire Protection Association, Quincy, MA.

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INFORMATIVE APPENDIX—
18-MONTH SUPPLEMENT: ADDENDA TO ANSI/ASHRAE STANDARD 62.2-2010

This supplement includes Addenda b, c, e, g, h, i, and l to ANSI/ASHRAE Standard 62.2-2010. The following table lists each addendum and describes the way in which the standard is affected by the change. It also lists the ASHRAE and ANSI approval dates for each addendum.

Addendum	Section(s) Affected	Description of Change(s)*	ASHRAE Standards Committee Approval	ASHRAE BOD Approval	ANSI Approval
b	6.7 Minimum Filtration; 9 References	This addendum adds the option of using a filter tested in accordance with AHRI Standard 680-2009, which relies on procedures specified in ANSI/ASHRAE Standard 52.2-2007.	January 29, 2011	February 2, 2011	February 3, 2011
c	7.2 Sound Ratings for Fans	This addendum clarifies the requirement for the static pressure at which fans are rated for sound.	January 29, 2011	February 2, 2011	February 3, 2011
e	6.7.1 Filter Pressure Drop; 9 References	This addendum requires HVAC systems covered by Section 6.7 to be designed to accommodate the pressure drop imposed on them by the installed filters to ensure that sufficient airflow is not inhibited. This change also includes a requirement to provide the needed information on design airflow and maximum allowable clean-filter pressure drop so that the filter can be replaced properly. Since the needed information on clean-filter pressure drop is not routinely available at present, the requirement will not take effect until January 1, 2014.	January 29, 2011	February 2, 2011	February 3, 2011
g	4.6 Restrictions on System Type; 8 Climate Data; Figure 8.1 Map identifying very cold and hot, humid climate zones for continental North America; Table 8.1 Hot, Humid U.S. Climates; Table 8.2 Very Cold U.S. Climates; Figure 8.2 Climate zones for U.S. locations	This addendum removes limits on the amount of net exhaust flow of whole-house mechanical ventilation systems in hot/humid climates and the amount of net supply flow in very cold climates. The committee reviewed Section 4.6, “Restrictions on System Type” and decided the restrictions were not justified by recent field experience. There was general agreement that the problems in both hot/humid and cold climates were caused by specific and easily avoidable errors in envelope design that could not be solved by the system restrictions in Section 4.6.	January 29, 2011	February 2, 2011	February 3, 2011
h	Normative Appendix A – Existing Buildings	This change to Normative Appendix A provides clarifications, with one exception (the Section A2 addition). All the other changes (except the A2 addition) are minor and clarify rather than alter the intended meaning. Previously Appendix A did not indicate whether to apply the infiltration credit, Section 4.1.3, before or after Section A3. In some cases, the order in which Sections A3 and 4.1.3 are applied will affect the final whole-building ventilation rate (in cases where Section 4.1.3 zeros out the whole-building ventilation rate). Section A2 of this addendum now states the required order (Section A3 before Section 4.1.3).	January 29, 2011	February 2, 2011	February 3, 2011

Addendum	Section(s) Affected	Description of Change(s)*	ASHRAE Standards Committee Approval	ASHRAE BOD Approval	ANSI Approval
i	Section 4.5 Delivered Ventilation; Table 4.2Ventilation Effectiveness for Intermittent Fans	The current methodology for intermittent ventilation ignored the impact of infiltration on the equivalent annual dose calculation, which is the basis of this requirement. This new methodology assumes an infiltration rate of 0.02 cfm/ft^2 of floor area and an occupancy area of 400 ft^2/person. Higher occupancy areas and/or higher infiltration rates would result in lower equivalent annual doses than the proposed new methodology. In general, this new methodology results in lower allowable intermittent ventilation rates.	June 25, 2011	June 29, 2011	July 27, 2011
l	6.9 Carbon Monoxide Alarms; 9 References	Carbon monoxide (CO) poisoning leads to hundreds of deaths and many thousands of injuries every year in homes. These CO poisoning events result from a wide range of sources, including automobiles left running in attached garages and heating system failures and from portable generators, power tools, heaters and cooking devices brought into the home (often during power outages). This problem differs from most other indoor polluting events in that occupants have very little ability to detect the presence of CO. This addendum adds a requirement for installing a CO alarm and refers to NFPA Standard 720, *Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment*, which includes provisions that cover the installation, location, performance, inspection, testing, and maintenance of CO detection and warning equipment.	June 25, 2011	June 29, 2011	July 27, 2011

* These descriptions may not be complete and are provided for information only.

NOTE

When addenda, interpretations, or errata to this standard have been approved, they can be downloaded free of charge from the ASHRAE Web site at http://www.ashrae.org.

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.