ADDENDA

ANSI/ASHRAE Addendum w to
ANSI/ASHRAE Standard 62.1-2022

Ventilation and Acceptable Indoor Air Quality

Approved by ASHRAE and the American National Standards Institute on September 30, 2025.

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).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: 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.

 ISSN 1041-2336

Approved American National Standard
ANSI
www.ansi.org

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

a. interpretation of the contents of this Standard,
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.

(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 w adjusts the default occupant densities given in Table 6-1 so as not to exceed the occupant density allowances in the 2024 International Building Code. This addendum also renames three occupancy categories for clarity.

Informative 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 w to Standard 62.1-2022

Revise Table 6-1 as shown below.

Table 6-1 Minimum Ventilation Rates in Breathing Zone

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Default Values Occupant Density	Air Class	OS (6.2.6.1.4)	Maximum CO^2 above Ambient, $\Delta C_{6.1}$
	cfm/ person	L/s· person	cfm/ft^2	L/s·m^2	#/1000 ft^2 or #/100 m^2			
Animal Facilities								
Animal exam room (veterinary office)	10	5	0.12	0.6	20	2		NA
Animal imaging (MRI/CT/PET)	10	5	0.18	0.9	20	3		NA
Animal operating rooms	10	5	0.18	0.9	20	3		NA
Animal postoperative recovery room	10	5	0.18	0.9	20	3		NA
Animal preparation rooms	10	5	0.18	0.9	20	3		NA
Animal procedure room	10	5	0.18	0.9	20	3		NA
Animal surgery scrub	10	5	0.18	0.9	20	3		NA
Large-animal holding room	10	5	0.18	0.9	20	3		NA
Necropsy	10	5	0.18	0.9	20	3		NA
Small-animal-cage room (static cages)	10	5	0.18	0.9	20	3		NA
Small-animal-cage room (ventilated cages)	10	5	0.18	0.9	20	3		NA
Correctional Facilities								
Booking/waiting	7.5	3.8	0.06	0.3	50	2		1200
Cell	5	2.5	0.12	0.6	25	2		NA
Dayroom	5	2.5	0.06	0.3	30	1		1500
Guard stations	5	2.5	0.06	0.3	15	1		1200
Educational Facilities								
Art classroom	10	5	0.18	0.9	20	2		NA
Classrooms (ages 5 to 8)	10	5	0.12	0.6	25	1		600
Classrooms (age 9 plus)	10	5	0.12	0.6	35	1		600
~~Computer lab~~ Information technology equipment facilities (occupiable)	10	5	0.12	0.6	25	1		600
Daycare sickroom	10	5	0.18	0.9	25	3		NA

Table 6-1 Minimum Ventilation Rates in Breathing Zone *(Continued)*

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Default Values			Maximum CO^2 above Ambient, $\Delta C_{6.1}$
					Occupant Density			
	cfm/ person	L/s· person	cfm/ft^2	L/s·m^2	#/1000 ft^2 or #/100 m^2	Air Class	OS (6.2.6.1.4)	
Daycare (through age 4)	10	5	0.18	0.9	25	2		NA
~~Lecture classroom~~ Assembly without fixed seats—concentrated (chairs only—not fixed)	7.5	3.8	0.06	0.3	65	1	✓	1200
Lecture hall (fixed seats)	7.5	3.8	0.06	0.3	~~150~~ 143	1	✓	1200
Libraries	5	2.5	0.12	0.6	10			600
Media center	10	5	0.12	0.6	25	1		600
Multiuse assembly (tables and chairs)	7.5	3.8	0.06	0.3	~~100~~ 67	1	✓	1200
Music/theater/dance	10	5	0.06	0.3	35	1	✓	2100
Science laboratories	10	5	0.18	0.9	25	2		NA
University/college laboratories	10	5	0.18	0.9	25	2		NA
Wood/metal shop	10	5	0.18	0.9	20	2		NA
Food and Beverage Service								
Bars, cocktail lounges	7.5	3.8	0.18	0.9	100	2		1200
Cafeteria/fast-food dining	7.5	3.8	0.18	0.9	~~100~~ 67	2		900
Kitchen (cooking)	7.5	3.8	0.12	0.6	~~20~~ 5	2		NA
Restaurant dining rooms	7.5	3.8	0.18	0.9	~~70~~ 67	2		1500
General								
Break rooms	5	2.5	0.06	0.3	25	1	✓	1500
Coffee stations	5	2.5	0.06	0.3	20	1	✓	1200
Conference/meeting	5	2.5	0.06	0.3	50	1	✓	1500
Corridors	—	—	0.06	0.3	—	1	✓	NA
Occupiable storage rooms for liquids or gels	5	2.5	0.12	0.6	2	2		NA
Hotels, Motels, Resorts, Dormitories								
Barracks sleeping areas	5	2.5	0.06	0.3	20	1	✓	900
Bedroom/living room	5	2.5	0.06	0.3	10	1	✓	600
Laundry rooms, central	5	2.5	0.12	0.6	10	2		NA
Laundry rooms within dwelling units	5	2.5	0.12	0.6	10	1		NA
Lobbies/prefunction	7.5	3.8	0.06	0.3	30	1	✓	1500
Multipurpose assembly	5	2.5	0.06	0.3	120	1	✓	1800
Miscellaneous Spaces								
Banks or bank lobbies	7.5	3.8	0.06	0.3	15	1	✓	900
Bank vaults/safe deposit	5	2.5	0.06	0.3	5	2	✓	600
~~Computer (not printing)~~ Information technology equipment facilities (occupiable)	5	2.5	0.06	0.3	~~4~~ 3	1	✓	~~600~~ NA
Freezer and refrigerated spaces (<50°F [10°C])	10	5	0	0	0	2		NA

Table 6-1 Minimum Ventilation Rates in Breathing Zone *(Continued)*

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Default Values Occupant Density	Air Class	OS (6.2.6.1.4)	Maximum CO^2 above Ambient, $\Delta C_{6.1}$
	cfm/ person	L/s· person	cfm/ft^2	L/s·m^2	#/1000 ft^2 or #/100 m^2			
Manufacturing where hazardous materials are not used	10	5	0.18	0.9	7	2		600
Manufacturing where hazardous materials are used (excludes heavy industrial and chemical processes)	10	5	0.18	0.9	7	3		NA
Pharmacy (prep. area)	5	2.5	0.18	0.9	10	2		900
Photo studios	5	2.5	0.12	0.6	10	1		NA
Shipping/receiving	10	5	0.12	0.6	2	2		700
Sorting, packing, light assembly	7.5	3.8	0.12	0.6	7	2		900
Telephone closets	—	—	0.00	0.0	—	1		NA
Transportation waiting	7.5	3.8	0.06	0.3	~~100~~ 67	1	✓	1800
Warehouses	10	5	0.06	0.3	—	2		700
Office Buildings								
Main entry lobbies	5	2.5	0.06	0.3	10	1	✓	1200
Occupiable storage rooms for dry materials	5	2.5	0.06	0.3	2	1		700
Office space	5	2.5	0.06	0.3	5	1	✓	600
Reception areas	5	2.5	0.06	0.3	30	1	✓	2100
Telephone/data entry	5	2.5	0.06	0.3	60	1	✓	1800
Public Assembly Spaces								
Auditorium seating area	5	2.5	0.06	0.3	~~150~~ 143	1	✓	1800
Courtrooms	5	2.5	0.06	0.3	70	1	✓	1500
Legislative chambers	5	2.5	0.06	0.3	50	1	✓	1800
Libraries	5	2.5	0.12	0.6	10	1		600
Lobbies	5	2.5	0.06	0.3	150	1	✓	1800
Museums (children's)	7.5	3.8	0.12	0.6	40	1		1800
Museums/galleries	7.5	3.8	0.06	0.3	~~40~~ 33	1	✓	1500
Places of religious worship	5	2.5	0.06	0.3	120	1	✓	1800
Residential								
Common corridors	—	—	0.06	0.3		1	✓	NA
Retail								
Sales (except as below)	7.5	3.8	0.12	0.6	15	2		900
Barbershop	7.5	3.8	0.06	0.3	~~25~~ 7	2	✓	NA
Beauty and nail salons	20	10	0.12	0.6	~~25~~ 7	2		NA
Coin-operated laundries	7.5	3.8	0.12	0.6	~~20~~ 7	2		~~900~~ NA
Mall common areas	7.5	3.8	0.06	0.3	~~40~~ 33	1	✓	2100
Pet shops (animal areas)	7.5	3.8	0.18	0.9	10	2		NA

Table 6-1 Minimum Ventilation Rates in Breathing Zone *(Continued)*

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Default Values Occupant Density	Air Class	OS (6.2.6.1.4)	Maximum CO^2 above Ambient, $\Delta C_{6.1}$
	cfm/ person	L/s· person	cfm/ft^2	L/s·m^2	#/1000 ft^2 or #/100 m^2			
Supermarket	7.5	3.8	0.06	0.3	8	1	✓	1500
Sports and Entertainment								
Bowling alley (seating)	10	5	0.12	0.6	40	1		900
Disco/dance floors	20	10	0.06	0.3	100	2	✓	1500
Gambling casinos	7.5	3.8	0.18	0.9	~~120~~ 91	1		1200
Game arcades	7.5	3.8	0.18	0.9	20	1		900
Gym, sports arena (play area)	20	10	0.18	0.9	7	2		900
Health club/aerobics room	20	10	0.06	0.3	~~40~~ 20	2		~~1500~~ 1200
Health club/weight rooms	20	10	0.06	0.3	10	2		1500
Spectator areas	7.5	3.8	0.06	0.3	~~150~~ 143	1	✓	1500
Stages, studios	10	5	0.06	0.3	~~70~~ 67	1	✓	1500
Swimming (pool and deck)	—	—	0.48	2.4	—	2		NA

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

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, 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.

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 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.

9/25