



# ADDENDA

**ANSI/ASHRAE Addendum z to  
ANSI/ASHRAE Standard 62.1-2016**

# Ventilation for Acceptable Indoor Air Quality

Approved by the ASHRAE Standards Committee on June 23, 2018; by the ASHRAE Technology Council on June 27, 2018; and by the American National Standards Institute on June 28, 2018.

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

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The Senior Manager of Standards of ASHRAE should be contacted for

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- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
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## FOREWORD

*The default values per person in Table 6.2.2.1 do not contain adjustments for system ventilation efficiency ( $E_v$ ) and, in many cases, are taken out of context. These values are deleted in proposed Addendum s to Standard 62.1-2016. Addendum z provides an informative table with a rate per unit area that incorporates the  $E_v$  used in the simplified procedure. This results in a more accurate first-pass estimate of ventilation required at the outdoor air intake for many systems.*

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

## Addendum z to Standard 62.1-2016

*Add a new Informative Appendix N as shown.*

### **INFORMATIVE APPENDIX N** **VENTILATION RATE CHECK TABLE**

Table N-1 is not for design purposes. It is intended to provide check values. Default rate per unit area is based on a multiple-zone system with default occupancy and default  $E_v$  that equals 0.75. This is the default  $E_v$  in the simplified rate when  $D > 0.60$ .

**Table N-1 Check Table for VRP**

<b>Occupancy Category</b>	<b>Combined Outdoor Air Rate (<math>R_c</math>)</b>	
	<b>cfm/ft<sup>2</sup></b>	<b>L/s·m<sup>2</sup></b>
<b>Correctional Facilities</b>		
Cell	0.33	1.63
Dayroom	0.28	1.40
Guard stations	0.18	0.90
Booking/waiting	0.58	2.93
<b>Educational Facilities</b>		
Daycare (through age 4)	0.57	2.87
Daycare sickroom	0.57	2.87
Classrooms (ages 5 through 8)	0.49	2.47
Classrooms (ages 9+)	0.63	3.13
Lecture classroom	0.73	3.69
Lecture hall (fixed seats)	1.58	8.00
Art classroom	0.51	2.53
Science laboratories	0.57	2.87
University/college laboratories	0.57	2.87
Wood/metal shop	0.51	2.53
Computer lab	0.49	2.47
Media center	0.49	2.47
Music/theater/dance	0.55	2.73
Multiuse assembly	1.08	5.47
<b>Food and Beverage Service</b>		
Restaurant dining rooms	0.94	4.75
Cafeteria/fast-food dining	1.24	6.27
Bars, cocktail lounges	1.24	6.27
Kitchen (cooking)	0.36	1.81
General		
Break rooms	0.25	1.23
Coffee stations	0.21	1.07
Conference/meeting	0.41	2.07
Corridors	0.08	0.40
Occupiable storage rooms for liquids or gels	0.17	0.87
<b>Hotels, Motels, Resorts, Dormitories</b>		
Bedroom/living room	0.15	0.73
Barracks sleeping areas	0.21	1.07
Laundry rooms (central)	0.23	1.13
Laundry rooms within dwelling units	0.23	1.13

**Table N-1 Check Table for VRP (Continued)**

<b>Occupancy Category</b>	<b>Combined Outdoor Air Rate (<math>R_c</math>)</b>	
	<b>cfm/ft<sup>2</sup></b>	<b>L/s·m<sup>2</sup></b>
Lobbies/prefunction	0.38	1.92
Multipurpose assembly	0.88	4.40
<b>Office Buildings</b>		
Breakrooms	0.49	2.47
Main entry lobbies	0.15	0.73
Occupiable storage rooms for dry materials	0.09	0.47
Office space	0.11	0.57
Reception areas	0.28	1.40
Telephone/data entry	0.48	2.40
<b>Miscellaneous Spaces</b>		
Bank vaults/safe deposit	0.11	0.57
Banks or bank lobbies	0.23	1.16
Computer (not printing)	0.11	0.53
Freezer and refrigerated spaces (<50°F)	0.03	0.13
General manufacturing (excludes heavy industrial and processes using chemicals)	0.33	1.67
Pharmacy (prep area)	0.31	1.53
Photo studios	0.23	1.13
Shipping/receiving	0.19	0.93
Sorting, packing, light assembly	0.23	1.15
Telephone closets	0.00	0.00
Transportation waiting	1.08	5.47
Warehouses	0.09	0.47
<b>Public Assembly Spaces</b>		
Auditorium seating area	1.08	5.40
Places of religious worship	0.88	4.40
Courtrooms	0.55	2.73
Legislative chambers	0.41	2.07
Libraries	0.23	1.13
Lobbies	1.08	5.40
Museums (children's)	0.56	2.83
Museums/galleries	0.48	2.43
<b>Residential</b>		
Dwelling unit	0.10	0.50
Common corridors	0.08	0.40
Retail		

**Table N-1 Check Table for VRP (Continued)**

<b>Occupancy Category</b>	<b>Combined Outdoor Air Rate (<math>R_c</math>)</b>	
	<b>cfm/ft<sup>2</sup></b>	<b>L/s·m<sup>2</sup></b>
Sales (except as below)	0.31	1.56
Mall common areas	0.48	2.43
Barbershop	0.33	1.67
Beauty and nail salons	0.83	4.13
Pet shops (animal areas)	0.34	1.71
Supermarket	0.16	0.81
Coin-operated laundries	0.36	1.81
<b>Sports and Entertainment</b>		
Gym, sports arena (play area)	0.43	2.13
Spectator areas	1.58	8.00
Swimming (deck and wetted area)	0.64	3.20
Disco/dance floors	2.75	13.73
Health club/aerobics room	1.15	5.73
Health club/weight rooms	0.35	1.73
Bowling alley (seating)	0.69	3.47
Gambling casinos	1.44	7.28
Game arcades	0.44	2.21
Stages, studios	1.01	5.07

## **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.

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