ADDENDA

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

# Ventilation for Acceptable Indoor Air Quality

Approved by the ASHRAE Standards Committee on September 14, 2018; by the ASHRAE Technology Council on September 28, 2018; and by the American National Standards Institute on October 1, 2018.

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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website (www.ashrae.org) or in paper form from the Senior Manager of Standards.

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 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 b adds a new Informative Appendix D, which includes a simplified ventilation rate table for use in existing buildings where information for calculating minimum ventilation using Normative Appendix A for multiple spaces is often unavailable.*

***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 62.1-2016

***Add a new Informative Appendix D as shown and reletter existing appendices.***

**(This appendix 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.)**

## INFORMATIVE APPENDIX D
## SIMPLIFIED VENTILATION RATE CALCULATION FOR MULTIPLE-ZONE RECIRCULATING SYSTEMS SERVING ONLY SPECIFIED OCCUPANCY CATEGORIES IN EXISTING BUILDINGS

### D1. USE OF THIS APPENDIX

This appendix is intended to be used to assess ventilation rates in existing buildings for third-party building evaluation programs such as ASHRAE Building EQ (bEQ), LEED EBOM, Energy Star, etc. Zone minimum primary airflow is included as guidance in evaluating and adjusting minimum box settings. This informative appendix is not intended to be used as the Basis of Design or for regulatory applications.

### D2. OUTDOOR AIR INTAKE

For multiple-zone recirculating systems serving only occupancy categories listed in Table D2, the target outdoor air intake flow $V_{target}$ is determined in accordance with Equation D2. For all other systems, $V_{target}$ shall be set equal to $V_{ot}$ in accordance with Section 6.2.5.4. If the minimum outdoor air intake flows measured at the system level meet or exceed $V_{target}$, then the system meets the criteria of this informative appendix.

$$V_{target} = \Sigma_{all\ zones} A_z \times R_s \quad \text{(D2)}$$

where

$A_z$ = zone floor area, the net occupiable floor area of the ventilation zone, $ft^2$ ($m^2$)

$R_s$ = outdoor airflow rate required per unit area as determined from Table D2

### D3. ZONE MINIMUM PRIMARY AIRFLOW

For each zone, the minimum primary airflow $V_{pz\text{-}min}$ is determined in accordance with Equation D3.

$$V_{pz\text{-}min} = A_z \times R_{pz} \quad \text{(D3)}$$

where

$R_{pz}$ = minimum primary airflow rate required per unit area as determined from Table D2. This is the minimum zone airflow required for ventilation purposes.

**Table D2 Minimum Outdoor and Primary Airflow Rates**

| Occupancy Category | Zone Minimum Airflow | | | |
|---|---|---|---|---|
| | Outdoor Airflow Rate $R_s$ | | Minimum Primary Airflow Rate, $R_{pz}$ | |
| | cfm/ft$^2$ | L/s·m$^2$ | cfm/ft$^2$ | L/s·m$^2$ |
| **Educational Facilities** | | | | |
| Classrooms (ages 5 to 8) | 0.65 | 3.25 | 1.12 | 5.60 |
| Classrooms (ages 9+) | 0.82 | 4.10 | 1.41 | 7.05 |
| Computer lab | 0.65 | 3.25 | 1.12 | 5.60 |
| Media center | 0.65 | 3.25 | 1.12 | 5.60 |
| Music/theater/dance | 0.72 | 3.60 | 1.24 | 6.20 |
| Multiuse assembly | 1.42 | 7.10 | 2.45 | 12.25 |
| **General** | | | | |
| Conference/meeting | 0.44 | 2.20 | 0.76 | 3.80 |
| Corridors | 0.11 | 0.55 | 0.19 | 0.95 |
| **Office Buildings** | | | | |
| Breakrooms | 0.65 | 3.25 | 1.12 | 5.60 |
| Main entry lobbies | 0.19 | 0.95 | 0.33 | 1.65 |
| Occupiable storage rooms for dry materials | 0.12 | 0.60 | 0.21 | 1.05 |
| Office space | 0.15 | 0.75 | 0.26 | 1.30 |
| Reception areas | 0.37 | 1.85 | 0.64 | 3.20 |
| Telephone/data entry | 0.63 | 3.15 | 1.09 | 5.45 |
| **Public Assembly Spaces** | | | | |
| Libraries | 0.30 | 1.50 | 0.52 | 2.60 |

# 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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