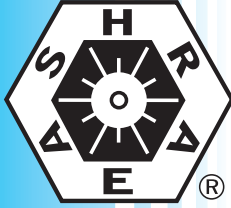


ANSI/ASHRAE Addendum e to
ANSI/ASHRAE Standard 62.1-2004



ASHRAE STANDARD

Ventilation for Acceptable Indoor Air Quality

Approved by the ASHRAE Standards Committee on June 24, 2006; by the ASHRAE Board of Directors on June 29, 2006; and by the American National Standards Institute on March 3, 2007.

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Cognizant TC: TC 5.12, Ventilation Requirements and Infiltration

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(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

The purpose of this addendum is to summarize the requirements for documentation in order to facilitate communication and improve understanding among members of the construction team: designers, authorities having jurisdiction, builders, owners, and operators. This addendum creates a new informative appendix.

***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 62.1-2004

Add the following new appendix to the standard.

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APPENDIX I

DOCUMENTATION

This appendix summarizes the requirements for documentation contained in the body of the standard using a series of templates that summarizes the design criteria used and assumptions made to comply with this standard. One way to comply with the documentation requirements of the standard is to complete these templates as appropriate during the project design process.

Outdoor Air Quality

Section 4.3 of this standard requires an investigation of the outdoor air quality in the vicinity of the project site. This template offers a means of documenting the results of both the regional and local investigations and the conclusions reached concerning the acceptability of the outdoor air quality for indoor ventilation.

TABLE I.1

Regional Outdoor Air Quality Pollutants		Attainment or Non-Attainment According to the US Environmental Protection Agency
Particulates (PM 2.5)		(Yes/No)
Particulates (PM 10)		(Yes/No)
Carbon monoxide—1 hour/8 hours		(Yes/No)
Ozone		(Yes/No)
Nitrogen dioxide		(Yes/No)
Lead		(Yes/No)
Sulfur Dioxide		(Yes/No)
Local Outdoor Air Quality Survey	Date:	Time:
a) Area surveyed	(Brief description of the site)	
b) Nearby facilities	(Brief description type of facilities—industrial, commercial, hospitality, etc.)	
c) Odors or irritants	(List and describe)	
d) Visible plumes	(List and describe)	
e) Nearby sources of vehicle exhaust	(List and describe)	
f) Prevailing winds	(Direction)	
g) Other observations		
Conclusions	(Remarks concerning the acceptability of the outdoor air quality)	

Building Ventilation Design Criteria

This template provides a means of documenting significant design criteria for the overall building. Only the last column, in accordance with Section 5.2.3, is specifically required by the standard. The other columns are motivated by the general documentation requirement described in Section 6.4.

TABLE I.2

Building Ventilation Design Criteria						
Total Building Outdoor Air Intake	Total Building Exhaust Air (see Section 5.10.2)	Outdoor Air Cleaning Required (See Section 6.2.1)		Occupied Space Relative Humidity (Choose One Criterion per Section 5.10.1)		Air Balancing (See Section 5.2.3)
		Particulate Matter	Ozone	Peak Outdoor DP at Peak Indoor Latent Load	Lowest Space SHR at Concurrent Outdoor Condition	
(cfm)	(cfm)	(Yes/No)	(Yes/No)	(% RH based on equipment selection)	(% RH based on equipment selection)	(NEBB, AABC, etc.)

Ventilation Rate Procedure

Section 6.2 permits the use of this prescription-based procedure to design ventilation systems. This template documents the assumptions made when using this procedure as required by Sections 5.17.4 and 6.4.

TABLE I.3

Space Identification	Space Type	Occupant Density	Rate/Person	Rate/SF	Zone Air Distribution Effectiveness	System Ventilation Efficiency	Class of Air
(List number or name of each ventilation zone, such as office number or name, retail space name, classroom number)	(List occupancy category of the space from Table 6-1 such as office space, retail sales, classroom age 5–8, etc.)	(People/ft ² or m ²)	(cfm or L/s)	(cfm or L/s)	(Table 6-2)	(Table 6-3 or Appendix A)	(Table 6.1, Table 5-2, or Table 5-3; Include justification for classification if not in these tables)

Indoor Air Quality Procedure

Section 6.3 permits the use of this performance-based procedure to design ventilation systems. This template documents the design criteria and assumptions made when using this procedure and justification of the design approach, as required by Section 6.3.2.

TABLE I.4

Indoor Air Quality Procedure Assumptions							
Contaminant of Concern	Contaminant Source	Contaminant Strength	Contaminant Target Concentration			Perceived IAQ	Design Approach
			Limit	Exposure Period	Cognizant Authority Reference		
(Identify and list)	(Identify and list)	(Determine and list)	(List)	(List)	(List)	(Percentage of satisfied building occupants)	(Select from Section 6.3.1.4 and include justification)

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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.

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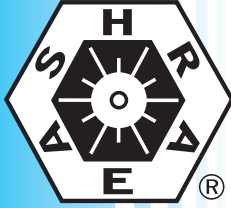
Through its *Handbook*, appropriate chapters will contain up-to-date standards and design considerations as the material is systematically revised.

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ANSI/ASHRAE Addendum f to
ANSI/ASHRAE Standard 62.1-2004



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FOREWORD

This addendum makes changes to the purpose and scope of Standard 62.1 to make them more consistent with several changes to the body of Standard 62.1-2004 that have already been incorporated (removal of smoking rates, new/existing building distinctions, O&M and construction sections, and others).

***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 f to 62.1-2004

Revise Sections 1 and 2 as follows.

1. PURPOSE

1.1 The purpose of this standard is to specify minimum ventilation rates and other measures intended to provide indoor air quality that ~~will be~~ is acceptable to human occupants and ~~are intended to~~ that minimizes the potential for adverse health effects.

1.2 This standard is intended for regulatory application to new buildings, additions to existing buildings, and those changes to existing buildings that are identified in the body of the standard.

1.3 This standard is intended to be used to guide the improvement of indoor air quality in existing buildings.

2. SCOPE

2.1 This standard applies to all ~~indoor or enclosed spaces that people may occupy, except where other applicable standards and requirements dictate larger amounts of ventilation~~

~~than this standard. Release of moisture in residential kitchens and bathrooms, locker rooms, and swimming pools is included in the scope of this standard. spaces intended for human occupancy except those within single-family houses, multifamily structures of three stories or fewer above grade, vehicles, and aircraft.~~

2.2 This standard defines requirements for ventilation and air-cleaning system design, installation, commissioning and operation and maintenance.

~~2.2.3~~ **2.2.3** Additional requirements for laboratory, industrial, health care and other spaces may be dictated by workplace and other standards, as well as by the processes occurring within the space.

~~2.3.4~~ **2.3.4** Although the standard may be applied to both new and existing buildings, the provisions of this standard are not intended to be applied retroactively when the standard is used as a mandatory regulation or code.

2.5 This standard does not prescribe specific ventilation rate requirements for spaces that contain smoking or that do not meet the requirements in the standard for separation from spaces that contain smoking.

~~2.4.6~~ **2.4.6** Ventilation requirements of tThis standard considers are based on: chemical, physical, and biological contaminants that can affect air quality. Thermal comfort requirements are not included in this standard.

2.7 Consideration or control of thermal comfort is not included.

2.8 This standard contains requirements, in addition to ventilation, related to certain sources, including outdoor air, construction processes, moisture, and biological growth.

~~2.5.2.9~~ **2.5.2.9** Acceptable indoor air quality may not be achieved in all buildings meeting the requirements of this standard for one or more of the following reasons:

- a. because of the diversity of sources and contaminants in indoor air;
- b. because of the many other factors that may affect occupant perception and acceptance of indoor air quality, such as air temperature, humidity, noise, lighting and psychological stress;
- c. because of the range of susceptibility in the population; and
- d. because outdoor air brought into the building may be unacceptable or may not be adequately cleaned.

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