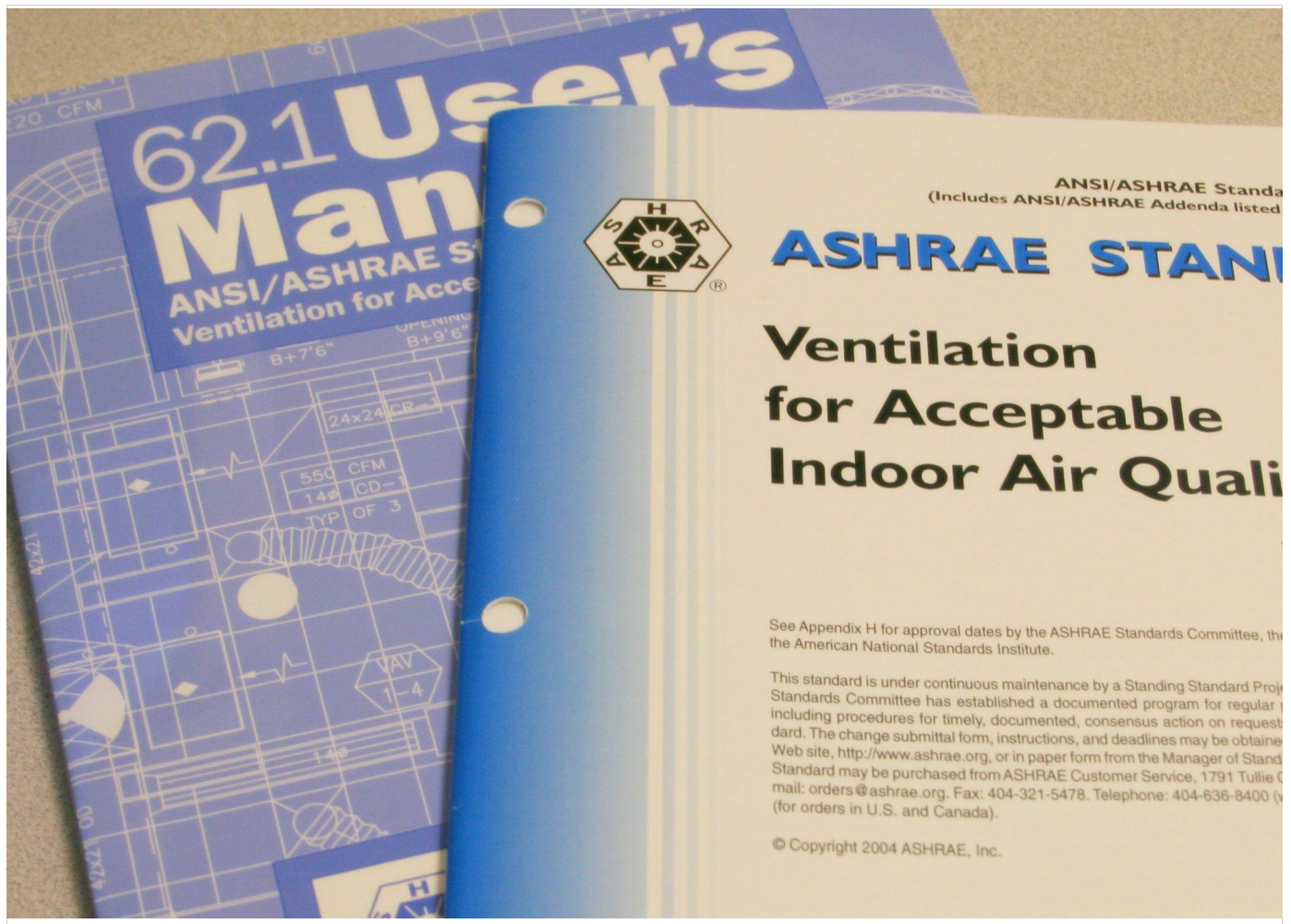




Updated ANSI/ASHRAE Standard for Commercial Ventilation Rate Procedure - Code Notes

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has modified its ventilation procedure to reflect the most current data available on indoor air quality. The new Standard was developed under American National Standards Institute (ANSI) guidelines and released in 2004: ANSI/ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality.



The 2004 Standard incorporates a new Ventilation Rate Procedure (VRP) to calculate the minimum ventilation rate that satisfies indoor air quality, first cost, and energy cost concerns and has been used to develop new prescriptive ventilation rates. In contrast to the previous version of Standard 62.1, which accounted only for occupancy, the improved VRP considers the added effects of pollutants generated by people and building contents. The new requirements will not affect outdoor air intake rates for most spaces; they have the greatest effect on ventilation requirements for high-occupancy areas, such as auditoriums.

Currently, the 2003-2006 International Mechanical Code (IMC) criteria are based on the previous ANSI/ASHRAE Standard (see Table 1). Many states use the IMC ventilation rates, and implementing the newer values in commercial buildings may lower first costs and energy costs, while maintaining indoor air quality.



Plan Review:

Perform ventilation inspection during plan review following current IMC procedures, and determine what ventilation level is used for equipment calculations. If the newer ASHRAE ventilation levels are not used in design, consider discussing the updated rates with the mechanical system designer.

Field Inspection:

Perform standard ventilation inspection based on current IMC requirements at the building site. Confirm that appropriate ventilation equipment is in place and properly installed.

Code Citations*

Table 1 provides a comparison of the current IMC criteria and updated ASHRAE requirements for the minimum ventilation rate in selected spaces. Note that the table data is not comprehensive. Additional, specific ASHRAE and IMC requirements must be addressed by the system designer.

Table 1. Required minimum ventilation rate in cubic feet per minute (cfm) per person for 2006 IMC and 62.1-2004 ASHRAE

Occupancy Category	IMC (cfm/person)	ASHRAE (cfm/person)
Correctional facility cell	20	10
Educational classroom	15	15 (students ages 5-8); 13 (students age 9+)
Public assembly space or theater auditorium	15	5
General or office conference room	20	6
Office building office space	20	17
Hotel, motel, resort, and dormitory lobbies	15	10

Sources:

- [Use of ASHRAE Standard 62.1 in IMC Would Provide Lower Costs](#) , Accessed September 15, 2006
- [ASHRAE Proposes Changes to ICC Based on Standards 62.1, 90.1, 90.2](#) , Accessed September 15, 2006
- [2006/2007 Proposed Changes to the International Mechanical Code](#)
- ANSI/ASHRAE Standard 62.1-2004, Ventilation for Acceptable Indoor Air Quality

ASHRAE 62.2-2004 Reference and link

*Copyright, 2004, [American Society of Heating, Refrigerating and Air-Conditioning Engineers](#) , Atlanta, GA.
ASHRAE Standard 62.2-2004 . Reproduced with permission. All rights reserved.
PNNL-SA-52672