

# Standard 62.1-2022



## ANSI/ASHRAE Standard 62.1-2022, *Ventilation and Acceptable Indoor Air Quality*

### Purpose

Specifies minimum ventilation rates and other measures intended to provide indoor air quality that is acceptable to human occupants, and minimizes adverse health effects. In addition to ventilation, this standard contains requirements related to certain contaminants and contaminant sources, including outdoor air, construction processes, moisture, and biological growth. The standard is written to be used for new buildings and certain changes or additions to existing buildings. Additionally, Standard 62.1 can be used to guide the improvement of IAQ in existing buildings through its operation and maintenance requirements.

### Significance

Standard 62.1 is uniquely qualified to address ventilation and acceptable IAQ in the built environment and will enable stakeholders to make a conscientious effort to improve the indoor environment while maintaining a minimum standard for ventilation. Cost-benefit analyses have estimated the health and economic benefits of improved IAQ to be far greater than the costs of implementing strategies that yield IAQ improvements<sup>1</sup>.

The standard is referenced in the ventilation-related requirements in the International Code Council's (ICC) International Mechanical Code and the International Association of Plumbing and Mechanical Officials' (IAPMO) Uniform Plumbing Code. Many state and local building codes also reference Standard 62.1 when addressing building ventilation, but the reference is generally limited in scope, and other requirements such as operations and maintenance are not included. This reference to only a portion of the standard could result in buildings having the right equipment and systems installed, but not running properly. For this reason, ASHRAE strongly recommends that local jurisdictions adopt the standard in its entirety for the benefit of commercial building occupants.

### Scope

Standard 62.1 applies to all indoor or enclosed spaces that people may occupy, except where other applicable standards and requirements dictate larger amounts of ventilation. The standard does not apply to dwelling units (e.g., homes, apartments, condos), which are covered by ASHRAE Standard 62.2, *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*, or healthcare facilities, which are addressed by ASHRAE Standard 170, *Ventilation of Health Care Facilities*. However, Appendix D does include ventilation rates for outpatient facilities where an authority having jurisdiction (AHJ) determines Standard 170 is not applicable.

The standard covers wide-ranging topics related to IAQ, including the investigation of outdoor air quality, design of HVAC systems, and the building envelope, use of natural ventilation, and operations and maintenance. It offers three methods of compliance: a prescriptive approach (Ventilation Rate Procedure), a performance approach (Indoor Air Quality Procedure), and a Natural Ventilation Procedure. The standard also provides additional requirements for operations and maintenance practices to reduce indoor pollution sources, such as carbon dioxide, carbon monoxide, and volatile organic compounds (VOCs).

Guideline 42-2023, *Enhanced Indoor Air Quality in Commercial and Institutional Buildings*, supplements Standard 62.1 by providing to a global audience of engineers, designers, hygienists, air quality practitioners, and building owners a roadmap of varied, evidence-based best practices for improving ventilation and acceptable IAQ beyond minimum requirements. The guideline steps users through concepts, research, and processes that have proven useful when effectively designed, installed, and operated. Learn more and get your copy at <https://bit.ly/3GOEGs5>.

<sup>1</sup> ASHRAE. June 28, 2023. *ASHRAE Position Document on Indoor Air Quality*: [ashrae.org/file%20library/about/position%20documents/pd\\_indoor-air-quality-2023-06-28.pdf](https://ashrae.org/file%20library/about/position%20documents/pd_indoor-air-quality-2023-06-28.pdf)

## Use by Governments and Certification Organizations:

- Required for the construction and alteration of U.S. federal buildings, as specified the Public Building Service 2025 Core Building Standards.
- Standard 62.1 is referenced in 18 state codes.
- Referenced by the CDC's National Institute for Occupational Safety and Health (NIOSH)<sup>2</sup>.
- Referenced by Department of Labor's Occupational Safety and Health Administration (OSHA) for guidance addressing IAQ issues in Commercial and Institutional buildings<sup>3</sup>.
- Its compliance is required for USGBC's Leadership in Energy and Environmental Design (LEED) and the Green Building Initiative's Green Globes certifications.

## Changes and Improvements from Standard 62.1-2019

- Improved IAQ procedure and modified maximum dew-point temperatures in mechanically cooled buildings and the required exhaust air separation distances.
- Relocated section on outpatient/ambulatory surgery and support care spaces to a new appendix.
- Requires compliance with ASHRAE Standard 170-2017, Ventilation for Health Care Facilities, for certain outpatient/ambulatory surgery and support care spaces.
- Reorganized Section 5, "Systems and Equipment" to better illustrate how buildings, systems, and equipment are inter-related.
- Requires owner acknowledgment of ANSI/ASHRAE Standard 188 *Legionellosis: Risk Management for Building Water Systems*.

<sup>2</sup> <https://www.cdc.gov/niosh/docs/wp-solutions/2020-110/pdfs/2020-110.pdf>  
<https://www.cdc.gov/niosh/ventilation/guidelines/index.html>

<sup>3</sup> OSHA. Indoor Air Quality in Commercial and Institutional Buildings <https://www.osha.gov/sites/default/files/publications/3430indoor-air-quality-sm.pdf>