

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, such as breathing difficulties and sick building syndrome due to poor indoor air quality. 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, additions to existing buildings, and certain changes to existing buildings. Additionally, Standard 62.1 can be used to guide the improvement of IAQ in existing buildings in particular through the operation and maintenance requirements included in the Standard.

Significance

Standard 62.1 plays an important role in building occupants' wellbeing by helping ensure the acceptability of indoor air quality. 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.

The standard is the basis for the specific ventilation-related requirements in the International Code Council's International (ICC) Mechanical Code and the International Association of Plumbing and Mechanical Officials' (IAPMO) Uniform Mechanical Code and the International Mechanical Code. Many state and local building codes also include Standard 62.1 when addressing building ventilation, although the O&M requirements are not generally included which could result in buildings having the right equipment and systems installed, but they may not be running properly.

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 occupancies, which are addressed by ASHRAE/ASHE 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.

Highlights

- ✓ Recognized in GSA Publication P100 Facilities Standards for Public Building Service as the consensus standard prescribing ventilation requirements in the United States.
- ✓ Standard 62.1 is referenced in 18 state codes.
- ✓ Referenced by the CDC's National Institute for Occupational Safety and Health (NIOSH).
- ✓ Its compliance is a prerequisite for Leadership in Energy and Environmental Design (LEED™) certification.
- ✓ Covers wide-ranging topics related to IAQ, including outdoor air quality, HVAC system designs, natural ventilation, envelope design and construction, and operations and maintenance.
- ✓ Offers three methods of compliance: a prescriptive approach (Ventilation Rate Procedure), a performance approach (Indoor Air Quality Procedure), and a Natural Ventilation Procedure.
- ✓ Provides additional requirements for operations and maintenance practices to reduce indoor pollution sources, such as carbon dioxide, carbon monoxide, and volatile organic compounds (VOCs).

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.
- ✓ Reorganized Section 5, “Systems and Equipment” to better illustrate how buildings, systems, and equipment are related.
- ✓ Updated definitions for “air density adjustments,” and removed some items related to transient occupancies.