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ANSI/ASHRAE/ASHE Standard 170-2021
Ventilation of Health Care Facilities

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NOTE

Approved addenda, errata, or interpretations for this standard can be downloaded free of charge from the ASHRAE website at www.ashrae.org/technology.

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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 2021 edition of ASHRAE/ASHE Standard 170 includes significant improvements to the 2017 edition. Most notably, the 2021 edition incorporates content in support of the new framework introduced in 2017, which divided the standard into three distinct sections: hospital spaces, outpatient spaces, and nursing home spaces. The added content facilitates closer coordination between the standard and the Facility Guidelines Institute (FGI) documents, which, as of 2018, comprise three separate books:

- Guidelines for Design and Construction of Hospitals
- Guidelines for Design and Construction of Outpatient Facilities
- Guidelines for Design and Construction of Residential Health, Care, and Support Facilities

As a continuous maintenance document, Standard 170 publishes addenda continually and updates on a four-year cycle in alignment with the FGI documents.

Improvements to the 2021 edition include the following:

- Revised scope, with improved guidance on thermal comfort conditions provided
- Extensive modifications to address the Outpatient and Residential sections
- Addition of a new outpatient ventilation table to address nonacute-type spaces
- Extensive revisions to air filtration requirements
- Addition of new columns in the ventilation tables to prescribe filtration requirement and designate unoccupied turndown
- Expanded guidance on separation distance requirements for varied intake and exhaust arrangements, coordinating with related ASHRAE Standard 62.1 data
- Expanded requirements to allow airborne infectious isolation room exhaust discharge to general exhaust under certain conditions
- Improved guidance on space ventilation requirements needed for anesthetic gas use
- Clarification of Class 1/Class 2/Class 3 imaging in coordination with FGI
- Revised definition of “invasive procedure”
- Improved guidance related to behavioral and mental health

The committee appreciates the hard work invested in this edition by everyone who participated. We are grateful for the partnership with FGI and other ASHRAE committees. The committee also appreciates the feedback received from the public review and continuous maintenance proposal processes. Future input from the public is always welcome.

This standard does not constitute a design guide. Rather it comprises a set of minimum requirements intended for adoption by code-enforcing agencies. For wide-ranging guidance, we refer the user to ASHRAE Handbook—HVAC Applications, HVAC Design Manual for Hospitals and Clinics and the proposed ASHRAE Guideline 43, Operations Guideline for Ventilation of Health Care Facilities.

Standard 170 originated with an agreement between ASHRAE and the Facility Guidelines Institute (publishers of the Guidelines for Design and Construction of Health Care Facilities) that an ASHRAE standard would provide the best location for ventilation requirements for the health care industry. The American Society for Health Care Engineering (ASHE) was also included in this process, which resulted in the initial (2008) edition of this standard—the first standard jointly sponsored by ASHRAE and ASHE.

1. PURPOSE

The purpose of this standard is to define ventilation system design requirements that provide environmental control in health care facilities.