

# ADDENDA

**ANSI/ASHRAE/ASHE Addendum s to  
ANSI/ASHRAE/ASHE Standard 170-2008**

# Ventilation of Health Care Facilities

Approved by the ASHRAE Standards Committee on June 23, 2012; by the ASHRAE Board of Directors on June 27, 2012; by the ASHE Board of Directors on June 29, 2012; and by the American National Standards Institute on June 28, 2012.

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ISSN 1041-2336



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ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

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- b. participation in the next review of the Standard,
- c. offering constructive criticism for improving the Standard, or
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## FOREWORD

*These changes are intended to clarify and coordinate requirements of the standard with the FGI Guidelines for Design and Construction of Health Care Facilities.*

***Note:** In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.*

## Addendum s to Standard 170-2008

*Revise Section 6.1.2.1 to address domestic hot water when reserve capacity is required.*

### 6.1.2 Reserve Heating and Cooling Sources

**6.1.2.1** Provide heat sources and essential accessories in number and arrangement sufficient to accommodate the facility needs, even when any one of the heat sources are not operating due to a breakdown or routine maintenance. The capacity of the remaining source(s) shall be sufficient to provide for domestic hot water, sterilization and dietary purposes, and to provide heating for operating, delivery, birthing, labor, recovery, emergency, intensive care, nursery, and inpatient rooms. (For further information, see AIA [2006] in Informative Annex B: Bibliography.)

**Exception:** Reserve capacity is not required if the ASHRAE 99% heating dry-bulb temperature for the facility is greater than or equal to 25°F (−4°C).

*Revise Section 6.6. As written, the Standard would allow several types of humidifiers that may not be appropriate for healthcare (e.g., atomizing, ultrasonic). This revision clarifies that only steam humidifiers shall be used.*

**6.6 Humidifiers.** When outdoor humidity and internal moisture sources are not sufficient to meet the requirements of Table 7-1, humidification shall be provided by means of the healthcare facility air-handling systems. Locate humidifiers within air-handling units or ductwork to avoid moisture accumulation in downstream components, including filters and insulation. Steam humidifiers shall be used. Chemical additives used for steam humidifiers serving healthcare facilities

shall comply with FDA requirements.<sup>1</sup> ~~Reservoir type water humidifiers or evaporative pan type humidifiers shall not be used in ductwork or in air handling units in healthcare facilities.~~ A humidity sensor shall be provided, located at a suitable distance downstream from the steam injection source. Controls shall be provided to limit duct humidity to a maximum value of 90% RH when the humidifier is operating. Humidifier steam control valves shall be designed so that they remain OFF whenever the air-handling unit is not in operation.

*If Addendum r to 170-2008 is published, revise the standard as shown to ensure ductwork is not damaged by damper closure. Section 6.7.4 will be added upon publication of Addendum r to 170-2008.*

### 6.7.4 Smoke and Fire Dampers.

- Maintenance access shall be provided at all dampers.
- All damper locations shall be shown on design drawings.
- Air-handling systems shall be arranged such that damper activation will not damage ducts.

*Add new Section 7.6 to require equipment located in psychiatric patient care areas to be appropriate for this occupancy.*

**7.6 Psychiatric Patient Areas.** All exposed equipment located with these spaces shall have enclosures with rounded corners and tamper-resistant fasteners. With the exception of HVAC room recirculating units, equipment shall be arranged such that maintenance personnel are not required to enter patient care spaces for service.

*Revise Table 7-1 Notes to clarify that the volume of these spaces is only required to be calculated based on the seating area of the waiting space. Note q of Table 7-1 Notes was revised by Addendum h to Standard 170-2008; currently published for free on the ASHRAE Web site at [www.ashrae.org/technology/page/132](http://www.ashrae.org/technology/page/132).*

### Table 7-1 Notes:

- In a recirculating ventilation system, HEPA filters shall be permitted instead of exhausting the air from these spaces to the outdoors provided that the return air passes through the HEPA filters before it is introduced into any other spaces. The entire Minimum Total Air Changes per Hour of recirculating airflow shall pass through HEPA filters. When these areas are open to larger, non-waiting spaces, the exhaust air volume shall be calculated based on the seating area of the waiting area. (Informative Note: The intent here is to not require the volume calculation to include a very large space [e.g., an atrium] just because a waiting area opens onto it.)

**POLICY STATEMENT DEFINING ASHRAE'S CONCERN  
FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES**

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted standards and the practical state of the art.

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.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive technical committee structure, continue to generate up-to-date standards and guidelines where appropriate and adopt, recommend, and promote those new and revised standards developed by other responsible organizations.

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

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating standards and guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

