

# ADDENDA

**ANSI/ASHRAE/ASHE Addendum i  
to ANSI/ASHRAE/ASHE Standard 170-2017**

# Ventilation of Health Care Facilities

Approved by ASHRAE Standard Committee and the ASHRAE Board of Directors on February 5, 2020; by the American Society for Healthcare Engineering on December 19, 2019; and by the American National Standards Institute on March 2, 2020.

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## FOREWORD

*Addendum i changes Section 6.6 to clarify requirements for water in humidification systems.*

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

### Addendum i to Standard 170-2017

*Revise Section 6.6 as shown.*

**6.6 Humidifiers.** When outdoor humidity and internal moisture sources are not sufficient to meet the requirements of Table 7.1, 8.1, or 9.1 humidification shall be provided by means of the facility air-handling systems. Steam or adiabatic high-pressure water-atomizing humidifiers shall be used.

#### 6.6.1 General Requirements

- a. Locate humidifiers within air-handling units or ductwork to avoid moisture accumulation in downstream components, including filters and insulation.
- b. A humidity sensor shall be provided, located at a suitable distance downstream from the steam injection source.
- c. Controls shall be provided to limit duct humidity to a maximum value of 90% rh when the humidifier is operating.
- d. Duct takeoffs shall not be located within the humidifier's absorption distance.
- e. Humidifier-control valves shall be designed so that they remain off whenever the AHU unit is not in operation.
- f. Water for adiabatic high-pressure humidifiers shall comply with Section 6.6.3.

**6.6.2 Steam Humidifier Requirements.** Chemical additives used in the steam systems that serve humidifiers shall comply with FDA requirements.<sup>3</sup>

#### 6.6.3 Adiabatic Atomizing Humidifier Requirements

- a. Humidifier water shall be treated with a reverse osmosis process, a UV-C sterilization light source, and a submicron filter. **Informative Note:** For more information, see ASTM (2011) in Appendix B.
- b. Treated humidifier water shall be continuously circulated from the source to the humidifier valves. All valves, headers, and piping not part of the recirculation loop shall drain completely when not in use. Water temperature shall be maintained within the control limits in the legionellosis risk management plan. (Informative Note: For more information, reference ASHRAE Guideline 12 and ASHRAE Standard 188.)
- c. Ports suitable for testing water quality shall be provided in the treated humidifier water piping system.
- d. Moisture eliminators shall be provided as required to prevent moisture accumulation in ductwork.
- e. Water purity shall meet or exceed potable water standards at the point where it enters the ventilation system, space, or water-vapor generator.

## **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.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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