STANDARD

ANSI/ASHRAE/ASHE Addendum b to
ANSI/ASHRAE/ASHE Standard 170-2013

Ventilation of Health Care Facilities

Approved by the ASHRAE Standards Committee on June 28, 2014; by the ASHRAE Board of Directors on July 2, 2014; by the ASHE Board of Directors on May 15, 2014; and by the American National Standards Institute on July 3, 2014.

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FOREWORD

This addendum updates the reference requirements of the Standard.

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

Addendum b to Standard 170-2013

Revise Section 3 as follows. The remainder of Section 3 is unchanged.

airborne infection isolation (AII): the isolation of patients infected with organisms spread by airborne droplet nuclei less than 5 μm in diameter (see FGI [2010], CDC [2003], and CDC [2005] in Informative Appendix B). For the purposes of this standard, the abbreviation "AII" refers to the room that provides isolation.

Revise Section 6.1.2.1 as follows.

6.1.2.1 Provide heat sources and essential accessories in number and arrangement sufficient to accommodate the facility needs (reserve capacity), even when any one of the heat sources or essential accessories is 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 FGI [2010] in Informative Appendix B.)~~ Fuel sufficient to support the owner's facility operation plan upon loss of fuel service shall be provided on site.

Revise Section 6.4 as follows.

6.4 Filter banks shall be provided in accordance with Table 6.4. Each filter bank with an efficiency of greater than MERV 12 shall be provided with an installed manometer or differential pressure measuring device that is readily accessible and provides a reading of differential static pressure across the filter to indicate when the filter needs to be changed. (For further information, see ~~FGI [2010] and~~ CDC [2003] in Informative Appendix B.) All of the air provided to a space shall be filtered in accordance with Table 6.4, except as otherwise indicated in Section 7.1 for spaces that allow recirculating HVAC room units.

Revise the following notes in Table 7.1 as shown. The remainder of Table 7.1 is unchanged.

Notes for Table 7.1:

[. . .]

b. Pharmacy compounding areas may have additional air change, differential pressure, and filtering requirements beyond the minimum of this table depending on the type of pharmacy, the regulatory requirements which may include adoption of USP 797), the associated level of risk of the work (see USP [~~2013~~ 2012] in Informative Appendix B), and the equipment utilized in the spaces.

[. . .]

i. Minimum total air changes per hour (ach) shall be that required to provide proper makeup air to kitchen exhaust systems as specified in ANSI/ASHRAE Standard 154.[4] In some cases, excess exfiltration or infiltration to or from exit corridors compromises the exit corridor restrictions of NFPA 90A,[5] the pressure requirements of NFPA 96,[6] or the maximum defined in the table. During operation, a reduction to the number of air changes to any extent required for odor control shall be permitted when the space is not in use. ~~(See FGI [2010] in Informative Appendix B.)~~

Revise Section 7.2.2 as shown. The remainder of Section 7.2.2 is unchanged.

7.2.2 Protective Environment (PE) Rooms. Ventilation for PE rooms shall meet the following requirements:

[. . .]

c. Air distribution patterns within the protective environment room shall conform to the following:
   1. Supply air diffusers shall be above the patient bed unless it can be demonstrated that such a location is not practical. Diffuser design shall limit air velocity at the patient bed to reduce patient discomfort. (See ASHRAE Standard 55 [~~2010a~~2013] in Informative Appendix B.)

Revise Section 9 as shown. The remainder of Section 9 is unchanged.

[1]Code of Federal Regulations, 21CFR 173.310 (April ~~1999~~2013), U.S. Dept. of Health and Human Services, Food and Drug Administration.

[2]DHHS (NIOSH) Publication No. 94-100 (NIOSH Alert) [1994], *Controlling Exposures to Nitrous Oxide During Anesthetic Administration,* National Institute for Occupational Safety and Health (CDC), Atlanta, GA.

~~[3]OSHA [1994]. Computerized information system. Washington, DC: U.S. Department of Labor, Occupational Safety and Health Administration.~~

[4]ANSI/ASHRAE Standard 154-~~2003~~2011, *Ventilation for Commercial Cooking Operations*, Atlanta: ASHRAE.

[5]NFPA. ~~2002~~2012. NFPA 90A, *Standard for the Installation of Air-Conditioning and Ventilating Systems*. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

[6]NFPA. ~~2004~~2014. NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*. National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

[7]NIOSH ~~Critical~~ Criteria Documents. National Institute for Occupational Safety and Health, available at the Centers for Disease Control and Prevention (CDC) website: http://www.cdc.gov/niosh/pubs/criteria_date_desc_nopubnumbers.html

[8]NFPA 99-~~2005~~2012, *Standard for Health Care Facilities.* National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts USA 02169

Revise Informative Appendix B as shown. The remainder of Informative Appendix B is unchanged.

[. . .]

ASHRAE. ~~2010a~~2013. ANSI/ASHRAE Standard 55, *Thermal Environmental Conditions for Human Occupancy.* Atlanta: ASHRAE.

[. . .]

CDC. 2003. *Guidelines for Environmental infection control in health-care facilities*. Morbidity and Mortality Weekly Report (MMWR) 52(RR10). U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Atlanta, GA.

[. . .]

USP. ~~2008~~2012. National Formulary, USP-797, Pharmaceutical Compounding—Sterile Preparations. U.S. Pharmacopeial Convention, Rockville, MD.

[. . .]

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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