ADDENDA

ANSI/ASHRAE/ASHE Addendum g to
ANSI/ASHRAE/ASHE Standard 170-2021

Ventilation of Health Care Facilities

Approved by ASHRAE and the American National Standards Institute on September 30, 2022, and by the American Society for Health Care Engineering on September 28, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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c. offering constructive criticism for improving the Standard, or
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FOREWORD

Addendum g revises portions of Sections 3, 6, 7, and 8 to provide clarity of intent and/or correct five elements (indicated below) of the current standard. It also follows the continuous maintenance process in further coordination with FGI and SSPC 170 to result in a coordinated document for use by all stakeholders in the health care community.

Addendum g comprises the following general edits:

- *New definition for* hybrid operating room
- *Revisions to Table 6-2 relating to coordinating the recent Class 2 and 3 imaging rooms to their associated operating rooms and procedure rooms and correlating supply air outlets*
- *Revisions to Sections 7 and 8 coordinating the nuclear medicine treatment space to align Tables 7-1 and 8-1 (and associated footnotes) along with minor edits to Section 8.7 and adding a new Section 7.7 matching Section 8.7*
- *Minor edits to Table 7-1 correcting an error (opposite switch) from outdoor air and total air changes per hour for seclusion room*

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 g to Standard 170-2021

Add the following new definition to Section 3 as shown. The remainder of Section 3 is unchanged.

hybrid operating room: a room that meets the definition of an *operating room (OR)* and has permanently installed equipment to enable diagnostic imaging before, during, and after surgical procedures. (***Informative Note:*** This space is functionally equivalent to Class 3 Imaging rooms. Imaging equipment may include MRI, fixed single-plane and bi-plane tomographic imaging systems, and computed tomography equipment. Use of portable imaging technology does not make an OR a hybrid operating room.)

Revise Table 6-2 as shown. The remainder of Table 6-2 is unchanged.

Table 6-2 Supply Air Outlets

Space Designation (According to Function)	Supply Air Outlet Classification[a]
~~Operating rooms[b], procedure rooms~~ Operating rooms and Class 3 Imaging rooms[b]	Supply diffusers within the primary supply diffuser array; Group E, nonaspirating; Additional supply diffusers within the room; Group E
Procedure Rooms and Class 2 Imaging rooms	Group E

Revise Table 7-1 as shown. The remainder of Table 7-1 and normative notes is unchanged.

Table 7-1 Design Parameters—Inpatient Spaces

Function of Space (ee)	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Unoccupied Turndown	Minimum Filter Efficiencies (cc)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
BEHAVIORAL AND MENTAL HEALTH FACILITIES (k)									
[. . .]									
Seclusion room *(FGI 2.1–2.4.3 & 2.2–2.12.4.3)*	NR	~~4~~ 2	~~2~~ 4	NR	NR	Yes	MERV-8	NR	NR
[. . .]									
DIAGNOSTIC AND TREATMENT									
Class 1 imaging room *(FGI 2.2–3.4.1.2 & Table 2.2-2)* (kk)	NR (jj)	2	6	NR (jj)	NR	Yes	MERV-8	Max 60	72–78/22–26
Class 2 imaging room *(FGI 2.2–3.4.1.2 & Table 2.2-2)* (d), (p), (kk)	Positive	3	15	NR	No	Yes	MERV-14	Max 60	70–75/21–24
Class 3 imaging room *(FGI 2.2–3.4.1.2 & Table 2.2-2)* (m), (o), (kk)	Positive	4	20	NR	No	Yes	MERV-16 (hh)	20–60	68–75/21–24
[. . .]									
Nuclear medicine ~~hot lab~~ (see Section 7.7) *(FGI 2.2–3.4.8.22)*	Negative	~~NR~~ 2	6	Yes	No	Yes (ff)	MERV-8	NR	70–75/21–24

Normative Notes for Table 7-1:

[. . .]

jj. Negative pressure and room exhaust is required if open mixing of isotopes or gaseous studies are performed as a part of nuclear treatment procedures within the imaging room. See also Section 7.7 (***Informative Note:*** Open mixing of isotopes, when performed, is typically performed in the hot lab.)

kk. The facility governing body shall inform design engineers relating to room function or use (which function is applicable) for Class 1, Class 2, or Class 3 imaging rooms.

Revise Table 8-1 as shown below. The remainder of Table 8-1 and normative notes is unchanged.

Table 8-1 Design Parameters—Specialized Outpatient Spaces

Function of Space (f)	Pressure Relationship to Adjacent Areas (n)	Minimum Outdoor ach	Minimum Total ach	All Room Air Exhausted Directly to Outdoors (j)	Air Recirculated by Means of Room Units (a)	Minimum Filter Efficiencies (c)	Design Relative Humidity (k), %	Design Temperature (l), °F/°C
[. . .]								
DIAGNOSTIC AND TREATMENT								
Class 1 imaging room *(FGI 2.1–3.5.2.4[1][b][i])* (ff)	NR (hh)	2	6	NR (hh)	NR	MERV-8	Max 60	72–78/22–26
[. . .]								

Normative Notes for Table 8-1:

[. . .]

hh. Negative pressure and room exhaust is required if open mixing of isotopes or gaseous studies are performed as a part of nuclear treatment procedures within the imaging room. See also Section 8.7. (***Informative Note:*** Open mixing of isotopes, when performed, is typically performed in the hot lab.)

Add new Section 7.7 as shown. This matches exactly Section 8.7 in the current standard.

7.7 Nuclear Medicine. Refer to Table 7-1 of this standard for both nuclear medicine treatment spaces and nuclear medicine hot-lab spaces when radiopharmaceutical preparation is performed on site (not premixed) and radioactive materials (radionuclides) are mixed/distributed from their protective containers within this room. When dose administration and preparation uses only low-level premixed radioactive materials, then negative air pressure and room exhaust is not indicated and these nuclear medicine spaces will follow the Class 1 Imaging room space of this standard for ventilation requirements.

Revise Section 8.4.1 as shown.

8.4.1 Operating Rooms (ORs), Operating/Surgical Cystoscopic Rooms, ~~and~~ Caesarean Delivery Rooms~~.~~ and Class 3 Imaging Rooms. Refer to Section 7.4.1 of this standard.

Revise Section 8.7 as shown.

8.7 Nuclear Medicine. Refer to Table 8-1 of this standard for both nuclear medicine treatment spaces and nuclear medicine hot-lab spaces when radiopharmaceutical preparation is performed on site (not premixed) and radioactive materials (radionuclides) are mixed/distributed from their protective containers within this room. ~~If~~ When dose administration ~~and on-site mixing~~ and preparation uses only low-level premixed radioactive materials, then ~~a hot lab~~ negative air pressure and room exhaust is not indicated and these nuclear medicine spaces will follow the ~~general examination~~ Class 1 Imaging room space in Table ~~8-2~~ 8-1 of this standard for ventilation requirements.

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9/22