



**BSR/ASHRAE/ASHE Addendum c
to ANSI/ASHRAE/ASHE Standard 170-2021**

Public Review Draft

**Proposed Addendum c to
Standard 170-2021, Ventilation of
Health Care Facilities**

**First Public Review (May 2021)
(Draft shows Proposed Changes to Current Standard)**

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FOREWORD

The proposed filter changes in Addendum c are to align Standard 170 requirements with FGI requirements for residential health care facilities.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum c to 170-2021

Revise Table 9-1 as shown below. The remainder of Table 9-1 is unchanged.

TABLE 9-1 Design Parameters for Residential Health, Care, and Support-Specific Spaces

Function of Space (l)	Pressure Relationship to Adjacent Areas (d)	Minimum Outdoor (ACH)	Minimum Total (ACH)	All Room Air Exhausted Directly to Outdoors (f)	Air Recirculated by Means of Room Units (a)	Unoccupied Turndown	Minimum Filter Efficiencies (i)	Design Relative Humidity (g), (%)	Design Temperature (h), °F/°C
RESIDENTIAL HEALTH									
NURSING HOMES									
All room (FGI 3.1-2.2.4.1) (b)	Negative	2	12	Yes	No	Yes	MERV- 44 <u>13</u>	max 60	70–78/21–29
All anteroom (FGI 3.1-2.2.4.1) (b)	Negative	NR	10	Yes	No	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Occupational therapy (FGI 3.1-3.3.3)	NR	2	6	NR	NR	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Physical therapy (FGI 3.1-3.3.2)	Negative	2	6	NR	NR	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Resident living/activity/dining (FGI 3.1-2.3.3)	NR	4	4	NR	NR	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Resident room (FGI 3.1-2.2.2)	NR	2	2	NR	NR	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Resident corridor (FGI 2.4-2.2.2)	NR	NR	4	NR	NR	Yes	MERV- 44 <u>13</u>	NR	70–78/21–29
Toilet/Bathing room (FGI 3.2-2.2.2.6)	Negative	NR	10	Yes	No	No	MERV- 44 <u>13</u>	NR	70–78/21–29
HOSPICE FACILITIES									
All room (FGI 3.2-2.2.3.1) (c)	Negative	2	12	Yes	No	Yes	MERV- 8 <u>13</u>	Max 60	70–75/21–24
All anteroom (FGI 3.2-2.2.3.1) (c)	(e)	NR	10	Yes	No	Yes	MERV- 8 <u>13</u>	Max 60	NR
Resident room (FGI 3.2-2.2.2)	NR	2	2	NR	NR	Yes	MERV- 8 <u>13</u>	Max 60	70–75/21–24
Resident corridor (FGI 2.4-2.2.2)	NR	NR	4	NR	NR	Yes	MERV- 8 <u>13</u>	NR	NR
Toilet/Bathing room (FGI 3.2-2.2.2.6)	Negative	NR	10	Yes	No	Yes	MERV- 8 <u>13</u>	NR	70–75/21–24
RESIDENTIAL CARE AND SUPPORT									
[...]									
SUPPORT SPACES									
[...]									
Nonrefrigerated body holding room	Negative	NR	10	Yes	No	No	MERV-8	NR	68-75/20-24

Informative Note: NR=No requirement

Add a new Section 9.4.3 as shown below.

9.4.3 Nonrefrigerated Body Holding Rooms. A nonrefrigerated body holding room is applicable only to facilities that do not perform autopsies on-site and use the space for short periods while waiting for the body to be transferred. All exhaust air from nonrefrigerated body holding shall be discharged directly to the outdoors without mixing with air from any other room or exhaust system.

Revise Informative Appendix D as shown below.

**INFORMATIVE APPENDIX D
RECOMMENDED FILTER EFFICIENCIES BY SPACE TYPE**

Spaces in Table 7-1, 8-1, 8-2, and 9-1 of this standard have filter efficiencies assigned based on Table D-1. This table is provided here for information, to allow users to understand the intent of the filter assignments and make engineering judgments on spaces not specifically named in the standard.

Table D-1: Recommended Filter Efficiencies by Space Type		
Level	Space Category	Filter Efficiency Recommendations^{a,b}
I	- Primarily exhausted space (e.g. restrooms, janitor’s rooms) - Any-human occupied space - Any room, inpatient or outpatient, where a patient stays less than 6 hours including waiting rooms. - Laboratories - Resident rooms in assisted living or hospice - Storage of packaged sterile material, clean linen, or pharmaceuticals ^c - Treatment rooms, Endoscopy procedure room - Dirty side of decontamination process	MERV 8 (equivalent to ASHRAE 62.1 or Standard 62.2)
II	<u>-Skilled nursing and hospice residential health facilities</u>	<u>MERV 13^{f,g}</u>
III	- Inpatient spaces, including Medical-Surgical, Airborne Isolation ^d -Special exam room for suspect airborne cases, emergency department exam rooms ^e - Resident room in a skilled nursing area - Workroom for packing of sterile materials - CT or MRI Procedure, Interventional radiology (including biopsy), or bronchoscopy - ER Procedure or Trauma Room	MERV14 ^{f,g}
III-IV	- Operating Room ^h	MERV16 ^f
IV-V	- Operating Room designated for orthopedic, transplants, neuro-surgery, or dedicated burn unit procedures - Protective environments, including burn units	HEPA

Notes

- Where listed, MERV rating is assumed to be non-degrading
- Transfer air due to differences in pressure between spaces may be unfiltered.
- Pharmacy compounding spaces are not covered in this table. Follow <USP>795, <USP> 797, or <USP> 800 as applicable.
- Does not include recirculated air. Air recirculated in an Airborne Isolation room requires HEPA filters.
- Air from spaces where suspected airborne cases may be treated or examined should be filtered at level ~~III~~ prior to re-circulation to other spaces. If exhausted, supply air filtration may be level I.
- Minimum MERV rating of the highest efficiency filter in the air stream.
- Filter efficiency if supply air is used; Not intended to exclude natural ventilation if otherwise allowed.
- An optional risk assessment, with the user group may indicate a need to increase from Level ~~III-IV~~ to Level ~~IV-V~~.