

ADDENDA

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

Ventilation of Health Care Facilities

Approved by ASHRAE and the American National Standards Institute on November 30, 2020, and by the American Society for Health Care Engineering on November 2, 2020.

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FOREWORD

In reviewing Addendum a, it was noticed the filter requirements listed for nursing homes are not consistent with the informative appendix table for recommended filter efficiencies by space type. Resident rooms are noted as requiring MERV-14 in the informative appendix as "Resident rooms in a skilled nursing area." However, other resident spaces were assigned MERV-8 under the category of "Any room, inpatient or outpatient, where a patient stays less than 6 hours including waiting rooms." This is incorrect in that (a) residents are not patients and (2) residents frequently spend amounts of time exceeding six hours outside of their room in these areas of the facility. Addendum r increases filtration in nursing homes to MERV-14. Prior to Addendum a, these spaces required a MERV-13 filter.

Section 6.4(i) is revised to not include Table 9.1, because in Table 9.1 the only spaces that do not permit room recirculation are 100% exhaust spaces. The prohibition on room recirculation units within these spaces has less to do with concern over access to room recirculation equipment, and that equipment serving as a future source of contaminants, and more to do with the contamination within the space itself. The installation of filters downstream of all wet air-cooling coils and the supply fan is not justified as a minimum requirement for the 100% exhaust spaces.

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 r to Standard 170-2017

Revise Section 6.4 as shown. Refer to Addendum a to 170-2017 changes to Section 6.4.

6.4 Filtration. Filtration of mechanically supplied air shall be provided as follows:

- a. Particulate matter filters, minimum MERV-8, shall be provided upstream of the first heat exchanger surface of any air-conditioning system that combines return air from multiple rooms or introduces outdoor air.
- b. Outdoor air shall be filtered in accordance with Tables 7.1, 8.1, or 9.1.
- c. Air supplied from equipment serving multiple or different spaces shall be filtered in accordance with Tables 7.1, 8.1, or 9.1.
- d. Air recirculated within a room shall be filtered in accordance with Tables 7.1, 8.1, or 9.1 or section 7.1(a)(5), 8.1(a)(5), or 9.1(a)(5).
- e. The design shall include all necessary provisions to prevent moisture accumulating on filters located downstream of cooling coils and humidifiers.
- f. Minimum filter requirements shall meet the equivalent MERV rating when tested in accordance with Appendix J of ANSI/ASHRAE Standard 52.2.
- g. Any HEPA filter or filter MERV-14 or higher shall have sealing interface surfaces.
- h. High Efficiency Particulate Air (HEPA) filters are those filters that remove at least 99.97% of 0.3 micron sized particles at the rated flow in accordance with the testing methods of IEST RP CC001.3 (IEST [2005] in informative Appendix B).
- i. For spaces that do not permit air recirculated by means of room units and have a minimum filter efficiency of MERV-14 or HEPA in accordance with table 7.1, ~~or 8.1, or 9.1~~, the minimum filter requirement listed in Table 7.1, ~~or 8.1, or 9.1~~ shall be installed downstream of all wet air cooling coils and the supply fan.

Revise Table 9.1 as shown. The remainder of Table 9.1 is unchanged. Refer to Addendum r to 170-2017 changes to Table 9.1.

Table 9.1 Design Parameters for Residential Health, Care, and Support-Specific Spaces

Function of Space	Pressure Relationship to Adjacent Areas (d)	Minimum Outdoor ach	Minimum Total ach	All Room Air		Air Recirculated by Means of Room Units (a)	Minimum Filter Efficiencies (i)	Design Relative Humidity (g), (%)	Design Temperature (h), °F/°C
				Exhausted Directly to Outdoors (f)	Exhausted				
RESIDENTIAL HEALTH									
NURSING HOMES									
All room (b)	Negative	2	12	Yes	No	No	MERV-14	max 60	70–75/21–24
All anteroom (b)	Negative	NR	10	Yes	No	No	MERV-8 ¹⁴	NR	NR
Resident room	NR	2	2	NR	NR	NR	MERV-14	NR	70–75/21–24
Resident living/activity/dining	NR	4	4	NR	NR	NR	MERV-8 ¹⁴	NR	70–75/21–24
Resident corridor	NR	NR	4	NR	NR	NR	MERV-8 ¹⁴	NR	NR
Physical therapy	Negative	2	6	NR	NR	NR	MERV-8 ¹⁴	NR	70–75/21–24
Occupational therapy	NR	2	6	NR	NR	NR	MERV-8 ¹⁴	NR	70–75/21–24
Toilet/Bathing room	Negative	NR	10	Yes	No	No	MERV-8 ¹⁴	NR	70–75/21–24

NR = No requirement

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