BSR/ASHRAE/ASHE Addendum n
to ANSI/ASHRAE/ASHE Standard 170-2021

Public Review Draft

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

First Public Review (February 2024)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

The current requirements for HEPA filters in the standard are based around a testing protocol common in the United States, however the availability of HEPA products tested to that standard is limited around the world. This addendum proposes to add other acceptable testing protocols for determining HEPA filter efficiency to allow for more international application of the standard.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (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 n to 170-2021

Add new definition to Section 3 as shown below.

HEPA filter: A HEPA (high-efficiency particulate air) filter is a particulate air filter tested to a minimum particle capture efficiency value according to one of the following test methods:

- IEST RP-CC001 - Minimum efficiency of Type A of 99.97% @ 0.3-micron particles
- EN-1822 - Minimum efficiency of Type H13 of 99.95% @ MPPS (Most Penetrating Particle Size)
- ISO 29463 - Minimum efficiency of Class 35H of 99.95% @ MPPS (Most Penetrating Particle Size)

Revise Exception 6.3.2.2(a) as shown below.

Exception to 6.3.2.2(a): AII room exhaust that first passes through a ~~high-efficiency particulate air (~~HEPA~~)~~ filter.

Revise Section 6.4g as shown below.

g. Any HEPA filter or filter MERV-14 or higher shall have sealing interface surfaces. ~~(***Informative Note:*** 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 [2005] in Informative Appendix E).~~

Revise Note dd in Table 7-1 as shown below.

dd. As an alternative to the requirement for HEPA filters in Filter Bank No. 2, MERV-14 rated filters may be used in Filter Bank No. 2 if a tertiary terminal HEPA filter is provided for this space. ~~(***Informative Note:*** 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 [2005] in Informative Appendix E).~~

Revise Informative Appendix E as shown below. The remainder of Informative Appendix E is unchanged.

INFORMATIVE APPENDIX E
INFORMATIVE REFERENCES AND BIBLIOGRAPHY

~~IEST. 2016. IEST PR-CC001.6, *HEPA and ULPA Filters*. Arlington Heights, IL: Institute of Environmental Sciences and Technology.~~

IEST. 2022. IEST RP-CC001.7. Recommended Practice (RP), *HEPA and ULPA Filters*. Schaumburg, IL: Institute of Environmental Sciences and Technology, covers basic provisions for HEPA (high efficiency particle arrestance) filters.

EN-1822-1. 2019. EN 1822-1 *High efficiency air filters (EPA, HEPA and ULPA) – Part 1: Classification, performance testing, marking*. European Standards

ISO 29463-5. 2022. ISO 29463-5 *High-efficiency filters and filter media for removing particles in air – Part 5: Test method for filter elements*. Vernier, Geneva: International Organization for Standardization (ISO).