



**BSR/ASHRAE Addendum g
to ANSI/ASHRAE Standard 62.1-2022**

Public Review Draft

Proposed Addendum g to Standard 62.1-2022, Ventilation and Acceptable Indoor Air Quality

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

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© 2024 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Parkway, Peachtree Corners, Georgia 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: standards.section@ashrae.org.

ASHRAE, 180 Technology Parkway, Peachtree Corners, Georgia 30092

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This proposed addendum provides additional templates to document air cleaning systems used in compliance with the indoor air quality procedure in Section 6.3.

[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 g to 62.1-2022

Modify Informative Appendix I as shown below.

14. INDOOR AIR QUALITY PROCEDURE

Section 6.3 permits the use of this performance-based procedure to design ventilation systems. ~~This~~ The first template documents the design criteria and assumptions made when using this procedure and justification of the design approach, as required by Section 6.3.2. This template is also provided in the IAQP calculator (see Appendix F). The second template provides documentation for filtration and air cleaning using mechanical fibrous filters and/or sorbents, as required by Section 6.3.4. The third template covers the documentation for other types of filtration and air cleaning systems, excluding mechanical fibrous filters and/or sorbents, as required by Section 6.3.4.

...

1. IAQ Procedure Assumptions

| Contaminant of Concern | Contaminant Source | Contaminant Strength | Contaminant Target Concentration | | | Perceived IAQ | Design Approach |
|------------------------|---------------------|----------------------|----------------------------------|-----------------|-------------------------------|--|--|
| | | | Limit | Exposure Period | Cognizant Authority Reference | | |
| (Identify and list) | (Identify and list) | (Determine and list) | (List) | (List) | (List) | (Percentage of satisfied building occupants) | (Select from Section 6.3.4 and include |

| | | | | | | | |
|--|--|--|--|--|--|--|-----------------|
| | | | | | | | justification.) |
|--|--|--|--|--|--|--|-----------------|

2. Documentation for filtration and air cleaning systems based on mechanical fibrous filters and/or sorbents.

Air Cleaning Test Method

| <u>Type of Air Cleaning</u> | <u>Approved Test Methods</u> | <u>Air Cleaner Efficiency Test Method (check all that apply)</u> |
|-----------------------------|---|--|
| Particulate matter filters | MERV per ASHRAE Standard 52.2 or ISO 16890 | <input type="checkbox"/> ASHRAE Standard 52.2 <input type="checkbox"/> ISO 16890 |
| Gas-phase air cleaners | Efficiency per ASHRAE Standard 145.2 or ISO 10121-2 | <input type="checkbox"/> ASHRAE Standard 145.2 <input type="checkbox"/> ISO 10121-2 |

3. Documentation for filtration and air cleaning systems, excluding mechanical fibrous filters and/or sorbents.

Air Cleaning Test Method

| <u>Type of Air Cleaning</u> | <u>Approved Test Methods</u> | <u>Air Cleaner Efficiency Test Method (check all that apply)</u> |
|-----------------------------|---|--|
| Other air cleaners | Efficiency per ASHRAE Standards, other “national consensus standard” approved by AHJ, or “custom efficiency test” approved by AHJ | <input type="checkbox"/> ASHRAE Standard 52.2 <input type="checkbox"/> ISO 16890 <input type="checkbox"/> ASHRAE Standard 145.2 <input type="checkbox"/> ISO 10121-2 <input type="checkbox"/> National consensus standard approved by the local AHJ <input type="checkbox"/> Custom efficiency test approved by the local AHJ |

3.1 This section only applies if a “national consensus standard” is used to determine air cleaning efficiency.

National consensus standard(s) used: _____

Approval: AHJ _____ Approver name _____ Approval date _____

3.2 This section only applies if a “custom efficiency test” is used to determine air cleaning efficiency.

| <u>Testing requirements for each the design compounds (DCs) and PM2.5</u> | <u>Approved by AHJ</u> |
|--|---|
| Conducted by third-party lab | <input type="checkbox"/> Yes (compliant) <input type="checkbox"/> No (non-compliant) |
| Test of the background concentration without the air cleaning in operation | <input type="checkbox"/> Yes (compliant) <input type="checkbox"/> No (non-compliant) |
| Test of the output concentration with the air cleaning in operation | <input type="checkbox"/> Yes (compliant) <input type="checkbox"/> No (non-compliant) |
| Test conducted under air cleaning operating conditions that match the IAQP design operating conditions (include fan voltage, flow rate, and other settings that are consistent with the manufacturer’s operating specifications) | <input type="checkbox"/> Yes (compliant) <input type="checkbox"/> No (non-compliant) |

| | | | |
|--|--|---|---|
| <u>Test conducted using the relevant laboratory methods for analysis and quantification specified in Tables 7-1 and 7-2.</u> | | <input type="checkbox"/> <u>Yes (compliant)</u> <input type="checkbox"/> <u>No (non-compliant)</u> | |
| <u>Compound</u> | <u>Allowed Test Methods</u> | | |
| <u>VOCs except formaldehyde, acetaldehyde and acetone</u> | <u>ISO 16000-6; EPA IP-1, EPA TO-17; ISO 16017-1; ISO 16017-2; ASTM D6345-10</u> | | |
| <u>Formaldehyde, acetaldehyde and acetone</u> | <u>ISO 16000-3; EPA TO-11; EPA IP-6; ASTM D5197</u> | | |
| <u>Carbon monoxide</u> | <u>ISO 4224; EPA IP-3</u> | | |
| | <u>Ozone</u> | <u>PM_{2.5}</u> | <u>Carbon Monoxide</u> |
| <u>Accuracy (±)</u> | <u>5 ppb</u> | <u>Greater of 5 µg/m³ or 20% of reading</u> | <u>Greater of 3 ppm or 20% of reading</u> |
| <u>Resolution (±)</u> | <u>1 ppb</u> | <u>5 µg/m³</u> | <u>1 ppm</u> |
| <u>Ozone Generating Devices – UL 2998 certification for air-cleaning devices that generate ozone.</u> | | <input type="checkbox"/> <u>Yes (compliant)</u> <input type="checkbox"/> <u>No (non-compliant)</u> | |

Approval: AHJ _____ Approver name _____ Approval date _____