**BSR/ASHRAE Addendum a**
**to ANSI/ASHRAE Standard 62.2-2025**

**Public Review Draft**

# Proposed Addendum a to Standard 62.2-2025, Ventilation and Acceptable Indoor Air Quality in Residential Buildings

**First Public Review (November 2025)**
**(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.

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**(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

*As of now, unvented combustion devices other than cooking appliances are the only appliances that can produce substantial emissions of contaminants but for which we do not require any ventilation in ASHRAE Standard 62.2. This proposed addendum assures consistent treatment and brings these devices onto an equal footing with cooking appliances.*

*The flow rates are based on models used by the unvented heater industry (DeWerth et al.) as well as by Francisco et al. Assumptions in the modeling included that the appliance was running at steady-state (heating capacity of the heater matched the heating load of the home), that the aim was to avoid reaching 100 ppb for nitrogen dioxide, that there was 0.35 ACH of ventilation (consistent with 62.2-compliant homes), and that there was an additional effective 0.35 ACH of removal due to the reactivity of nitrogen dioxide of unvented combustion heaters (within the range of values used by DeWerth et al. and Francisco et al.). Heater capacities for different climate zones are from industry sizing guidelines: 1.5 BTUh/ft$^3$ for climate zone 1, 1.8 BTUh/ft$^3$ for CZ2 and CZ6, 2.2 BTUh/ft$^3$ for CZ3, 2.4 BTUh/ft$^3$ for CZ4, and 2.8 BTUh/ft$^3$ for CZ5. These climate zones were mapped for approximate matches to the climate zone map found in ASHRAE Standard 62.2, Section 9.*

*For Exception 2 to Section 5.1, 1600 ppm of carbon dioxide traces back to the Sherman/Fairey/Crawford ASHRAE Journal article (May 2022) and is consistent with the IAQP in ASHRAE Standard 62.2.*

***[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 a to 62.2-2025

***Revise Section 5.1 and Table 5-1 as shown below.***

**5. LOCAL EXHAUST**

**5.1 Local Mechanical Exhaust.** A local mechanical exhaust system shall be designed and installed in each kitchen, bathroom, ~~and~~ toilet room, and any other room that has an unvented room heater, and shall be one of the following:

a. A demand-controlled local mechanical exhaust system meeting the requirements of Section 5.2
b. A continuous local mechanical exhaust system meeting the requirements of Section 5.3.

**Exception to (b):** Kitchens that are not enclosed kitchens or other rooms with an unvented room heater shall be provided with a demand-controlled local mechanical exhaust system meeting the requirements of Section 5.2.

**Exception 1 to 5.1:** Alternative ventilation for kitchens and bathrooms: Other design methods that provide the required minimum exhaust airflow rates shall be permitted when approved by a licensed design professional.

**Exception 2 to 5.1:** Alternative for rooms with an unvented room heater: Unvented room heaters within the dwelling unit boundary shall be permitted when they meet ANSI Standard Z21.11.2 and have a ventilation system capable of maintaining the concentration of carbon dioxide at no more than 1600 ppm during appliance operation.

**Table 5-1 Demand Controlled Local Exhaust Airflow Rates**

| Application | Airflow |
|---|---|
| Kitchen | • Vented range hood (including appliance-range hood combinations): 100 cfm (50 L/s)<br>• Other kitchen exhaust fans, including downdraft: 300 cfm (150 L/s) |
| Bathroom or toilet room | 50 cfm (25 L/s) |
| Room with an unvented room heater | 300 cfm (150 L/s) |

***Add new Section 6.4.3 as shown below.***

**6.4.3 Unvented Room Heaters.** Unvented room heaters shall be thermostatically controlled and be listed to the safety standard ANSI Z21.11.2, Gas-Fired Room Heaters, Volume II, Unvented Room Heaters (2002) or later, and shall comply with the appliance input limits and venting requirements of NFPA 54/ANSI Z223.1 (2024), National Fuel Gas Code, or the International Fuel Gas Code (2024).

***Add new reference to Section 10 as shown below.***

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CSA/ANSI Z21.11.2-2019 Gas-Fired Room Heaters, Volume II, Unvented Room Heaters Section 5.1, Section 6.4.3