

BSR/ASHRAE Addendum j to ANSI/ASHRAE Standard 62.2-2019

# **Public Review Draft**

# Proposed Addendum j to Standard 62.2-2019, Ventilation and Acceptable Indoor Air Quality in Residential Buildings

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

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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**

This proposed addendum prohibits the installation of unvented combustion space heaters within dwelling units. Unacceptable concentrations of products of combustion can be generated at the ventilation rates allowed in this standard when combustion appliances are unvented. This determination was made by the committee after several years of study and debate on this topic. Technical references that were considered by the committee in the process of arriving at this determination include, but are not limited to:

- ANSI Standard Z21.11.2 "Gas-Fired Room Heaters, Volume II, Unvented Room Heaters" 2019
- ASHRAE Standard 55, "Thermal Environmental Conditions for Human Occupancy" 2017
- ASHRAE/ICC/USGBC/IES Standard 189.1, "Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings" 2020.
- ASHRAE Position Document (PD) on Unvented Combustion Devices and Indoor Air Quality.
- ASHRAE Position Document on Indoor Air Quality,
- Dutton, Steven, et al. "Indoor Pollutant Levels from Use of Unvented Natural Gas Fireplaces in Boulder Colorado", J. Air & Waste Management. 2001
- Francisco, P.W. et al, "Measured concentration of combustion gasses from the use of unvented gas fireplaces," Indoor Air (20) pp370-379; 2010
- Francisco, Paul, et al. "ASHRAE Position Document on Unvented Combustion Devices and Indoor Air Quality", ASHRAE 2020.
- ToxCEl LLC. The Impact of Unvented Gas Heating Appliances on Indoor Nitrogen Dioxide Levels in "tight" homes. March 12, 2013.
- Traynor GW et al. Macromodel for Assessing Indoor Concentrations of Combustion Pollutants: Model Development and Preliminary Predictions for CO, NO2, and Respirable Suspended Particles. LBL-25211, Lawrence Berkeley National Laboratory, Berkeley, (1989)
- Whitmyre, G.K. et al. Probabilistic assessment of the potential indoor air impacts of vent-free gas heating appliances in energy-efficient homes in the United States, Journal of the Air & Waste Management Association, 68:6, 616-625, DOI:10.1080/10962247.2018.1426652. (2018)

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (for additions) and <del>strikethrough</del> (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 j to 62.2-2019**

### Add the following to Section 3, Definitions:

*combustion space heater:* an appliance that is permanently installed within a space and intended to provide heating or decorative effects to that space through the direct combustion of a fuel.

Add the following new Section 6.4.3.

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**6.4.3** Unvented combustion space heaters shall not be permitted.