

BSR/ASHRAE Addendum b to ANSI/ASHRAE Standard 15.2-2024

First Public Review Draft

Proposed Addendum b to Standard 15.2-2024, Safety Standard for Refrigeration Systems in Residential Applications

First Public Review (April 2025) (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 addendum proposes modifications to require a leak detection system to be part of a refrigeration system installed in a room where open flame appliances are present. This is needed because currently ASHRAE 15.2 only addresses open flames in the ducts of flammable refrigerating systems per clause 5.4. It does not address the potential hazard of other appliances with open flames within a space where a flammable refrigerant may be present.

Note: This addendum makes proposed changes to the current standard. These changes are indicated in the text by <u>underlining</u> (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 b to Standard 15.2-2024

Modify Section 4, 7 and 13 as follows. The remainder of these Sections remain unchanged.

4. DEFINITIONS

[...]

equipment: all control devices, condensing sections, evaporator sections, combination appliances, and other components of *fixed<u>refrigeration systems</u>*. that are integrated to provide control of environmental conditions for buildings.

fixed <u>refrigeration system</u>: a type of refrigeration system that is intended to be used while fastened to a support or while secured in a specific location.

fixed open-flame-producing appliance: an appliance that intentionally produces an open-flame by drawing air for combustion from the indoor space and is intended to be used while fastened to a support or while secured in a specific location.

[...]

7.2* A2L Refrigeration Systems in Spaces with Open Flames. A2L refrigeration systems installed within a space containing fixed open-flame-producing appliances, other than water heaters listed to CSA/ANSI Z21.10.1³², shall have an integral leak detection system.

Exceptions to 7.2:

- 1. <u>Ductless HVAC</u> systems and heat-pump water heaters installed 10 feet or greater away from fixed openflame-producing appliances.
- 2. <u>Spaces using the two permanent opening method as specified in the National Fuel Gas Code</u> ^{® 33} (NFPA 54)</sup> for combustion air to the *fixed open-flame-producing appliance*.

[...]

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13. NORMATIVE REFERENCES

32. CSA/ANSI. 2019. CSA/ANSI Z21.10.1, Gas water heaters, volume I, storage water heaters with input ratings of 75,000 Btu per hour or less

33. NFPA. 2024. NFPA 54, National Fuel Gas Code

[...]

INFORMATIVE APPENDIX A EXPLANATORY MATERIAL

Section 7.2

This requirement only applies to the refrigeration system as defined by this standard and does not extend to ducts or plenums.

Examples of fixed open-flame-producing appliances are fireplaces, stoves, gas cooktops, gas ranges, boilers, central furnaces, and gas unit heaters. They may be fixed by fastening or secured in place by connection to piping or venting.

The requirement does not apply to water heaters listed to CSA/ANSI Z21.10.1³² because these gas fired storage water heaters are tested for flammable vapors and are designed with flame arrest construction.

The exemption for spaces using the two permanent opening method is found within NFPA 54³³ is based on the code requirement that air for combustion must comply with one of the approved methods. The two permanent opening method requires an opening within 12 inches of the top and 12 inches of the bottom of the space. These communicate with larger indoor spaces calculated in accordance with NFPA 54 or outdoors either directly or through approved horizontal ducts.