ADDENDA

ANSI/ASHRAE Addendum j to
ANSI/ASHRAE Standard 15-2024

Safety Standard for Refrigeration Systems

Approved by ASHRAE and the American National Standards Institute on September 30, 2025.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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This American National Standard (ANS) is a national voluntary consensus Standard developed under the auspices of ASHRAE. *Consensus* is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this Standard as an ANS, as "substantial agreement reached by directly and materially affected interest categories. This signifies the concurrence of more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that an effort be made toward their resolution." Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

a. interpretation of the contents of this Standard,
b. participation in the next review of the Standard,
c. offering constructive criticism for improving the Standard, or
d. permission to reprint portions of the Standard.

(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

Addendum j removes the Section 7.5.3 exception that allowed the use of an A3 or B3 refrigerant outdoors with no restriction other than the total charge limitation of Section 7.5.1.1. The addendum also removes the Section 7.8 exception that allowed, without restriction, the outdoor use of an A2 refrigerant in high-probability commercial refrigeration systems. These exceptions were added under Addendum l for the 2019 edition of ANSI/ASHRAE Standard 15 and created an unintended loophole that permitted charge limits of up to 1100 lb (500 kg) if the refrigerating system is installed outdoors. Removal of the exception to Section 7.5.3 does not prohibit the installation of equipment outdoors using A3 or B3 refrigerants. Group A3 and B3 refrigerants may still be used outdoors if they are listed or not listed but approved by the AHJ. At this time, Standard 15 does not address how all equipment must be installed outdoors when utilizing an A2, A3, or B3 refrigerant, and there are safety concerns about how refrigerant may leak into spaces surrounding the refrigeration system.

Informative Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum j to Standard 15-2024

Modify Section 7 as shown. The remainder of Section 7 remains unchanged.

7. RESTRICTIONS ON REFRIGERANT USE

[. . .]

7.5 Additional Restrictions

[. . .]

7.5.3 Class 3 ~~Higher-Flammability~~ Refrigerants for Refrigeration Systems. *Refrigeration systems* containing Group A3 and B3 *refrigerants* ~~*shall not*~~ *shall* only be used ~~except~~ where ~~*approved* by the AHJ.~~ at least one of the following is met:

~~**Exceptions to 7.5.3:**~~

~~1. This restriction does not apply to laboratories with more than 100 ft^2 (9.3 m^2) of space per person.~~

~~2. This restriction does not apply to *industrial occupancies*.~~

~~3. This restriction does not apply to *listed self-contained systems* containing no more than 0.331 lb (150 g) of Group A3 *refrigerant*, provided that the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.~~

~~4. This restriction does not apply to equipment *listed* to UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] containing no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft^3 (13 × *LFL* [kg], where *LFL* is in kg/m^3) of Group A3 *refrigerant*, provided that the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions. Refrigeration systems containing more than 0.141 × *LFL* (lb) (4 × *LFL* [kg]) in an *independent circuit shall not* be installed within 20 ft (6 m) of an open flame.~~

~~5. This restriction does not apply to equipment *listed* to UL 60335-2-40 [5]/CSA C22.2 No. 60335-2-40 [6] containing no more than 0.106 × *LFL* (lb) (3 × *LFL* [kg]) of Group A3 *refrigerant*, provided that the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.~~

~~6. This restriction does not apply to refrigeration systems located in *machinery rooms* or outdoors.~~

a. The *refrigeration system* is installed in a laboratory with more than 100 ft^2 (9.3 m^2) of space per person.

b. The *refrigeration system* is installed in an *industrial occupancy*.

c. The *refrigeration system* is a *listed self-contained system* containing no more than 0.331 lb (150 g) of Group A3 *refrigerant*, provided that the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

d. The refrigeration system is within equipment *listed* to UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] and all of the following provisions are met:

1. The refrigeration system contains no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft^3 (13 × *LFL* [kg], where *LFL* is in kg/m^3) of Group A3 refrigerant.
2. A refrigeration system containing more than 0.141 × *LFL* (lb) (4 × *LFL* [kg]) in any *independent circuit* is installed not less than 20 ft (6 m) from an open flame.
3. The equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

e. The refrigeration system is within equipment *listed* to UL 60335-2-40[5]/CSA C22.2 No. 60335-2-40[6] and contains no more than 0.106 × *LFL* (lb) (3 × *LFL* [kg]) of Group A3 *refrigerant*, and the equipment is installed in accordance with the listing and the *manufacturer*'s installation instructions.

f. The *refrigeration system* installation is located in a *machinery room* in accordance with Sections 8.9 and 8.10.

[…]

7.8* High-Probability Commercial Refrigeration Systems using Group A2 Refrigerants. *High-probability systems* using Group A2 *refrigerants* for commercial refrigeration applications within the scope of UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] *shall* comply with this section. *Refrigeration systems* using Group A2 *refrigerants shall* be limited to *listed self-contained systems* containing no more than 0.459 × *LFL* (lb), where *LFL* is in lb/1000 ft³ (13 × *LFL* [kg], where *LFL* is in kg/m³), provided that the *refrigeration system* is installed in accordance with the listing and the *manufacturer*'s installation instructions. *Refrigeration systems* containing more than 0.141 × *LFL* (lb), (4 × *LFL* [kg]) in an *independent circuit shall not* be installed within 20 ft (6 m) of an open flame.

Exceptions to 7.8:

1. This restriction does not apply to laboratories with more than 100 ft^2 (9.3 m^2) of space per person.
2. This restriction does not apply *industrial occupancies*.
3. This restriction does not apply to *refrigeration systems* located in *machinery rooms* ~~or outdoors~~.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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