



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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ASHRAE Standing Standard Project Committee 15

Cognizant TCs: 10.1, Custom Engineered Refrigeration Systems, and 9.1, Large Building Air-Conditioning Systems

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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 ~~striking through~~ (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 ft² (9.3 m²) 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 60335-2-89⁷/CSA C22.2 No. 60335-2-89⁸ containing no more than $0.459 \times LFL$ (lb), where LFL is in lb/1000 ft³ ($13 \times LFL$ [kg], where LFL is in kg/m³) 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 $0.141 \times LFL$ (lb) ($4 \times LFL$ [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 60335-2-40⁵/CSA C22.2 No. 60335-2-40⁶ containing no more than $0.106 \times LFL$ (lb) ($3 \times LFL$ [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 ft² (9.3 m²) 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 60335-2-89⁷/CSA C22.2 No. 60335-2-89⁸ and all of the following provisions are met:

1. The refrigeration system contains no more than $0.459 \times LFL$ (lb), where LFL is in lb/1000 ft³ ($13 \times LFL$ [kg], where LFL is in kg/m³) of Group A3 refrigerant.
2. A refrigeration system containing more than $0.141 \times LFL$ (lb) ($4 \times LFL$ [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 60335-2-40⁵/CSA C22.2 No. 60335-2-40⁶ and contains no more than $0.106 \times LFL$ (lb) ($3 \times LFL$ [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 60335-2-89⁷/CSA C22.2 No. 60335-2-89⁸ shall comply with this section. Refrigeration systems using Group A2 refrigerants shall be limited to listed self-contained systems containing no more than $0.459 \times LFL$ (lb), where LFL is in lb/1000 ft³ ($13 \times LFL$ [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 $0.141 \times LFL$ (lb), ($4 \times LFL$ [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 ft² (9.3 m²) 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~~.

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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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