



ADDENDA

**ANSI/ASHRAE Addendum m to
ANSI/ASHRAE Standard 15-2024**

Safety Standard for Refrigeration Systems

Approved by ASHRAE and the American National Standards Institute on June 30, 2026.

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).

The latest edition of an ASHRAE Standard may be purchased on the ASHRAE website (www.ashrae.org) or from ASHRAE Customer Service, 180 Technology Parkway, Peachtree Corners, GA 30092. E-mail: orders@ashrae.org. Fax: 678-539-2129. Telephone: 404-636-8400 (worldwide), or toll free 1-800-527-4723 (for orders in US and Canada). For reprint permission, go to www.ashrae.org/permissions.

© 2026 ASHRAE

ISSN 1041-2336



ASHRAE Standing Standard Project Committee 15

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

SPLS Liaison: Douglas K. Tucker · ASHRAE Staff Liaison: Kai Sosa

Gregory A. Scrivener,* <i>Chair</i>	Susanne Dormann*	KC Kolstad*	Vijay Kumar Sathyamurthi*
Stephen V. Spletzer,* <i>Vice Chair</i>	Taylor Duran*	Satheesh Kulankara*	John P. Scott
Harshad V. Inamdar,* <i>Secretary</i>	Frederick Frey*	Travis Lancaster	Ronald L. Shughart
Hugo Aguilar*	Davi L. Goergen	Lauren MacGowens*	Eric M. Smith*
Timothy D. Anderson	Sivakumar Gopalnarayanan*	Aaron J. McEwin	Catherine L. Stashak*
John Bade*	Craig Grider*	Kevin A. McFadden	Russell C. Tharp
Julius A. Ballanco	Ruben Grijalva	Vikas Mehta	Jeremy Tidd*
Wayne K. Borrowman*	Danny M. Halel*	Neil Monson	James T. VerShaw*
Nohad I. Boudani*	Susanna S. Hanson	Jeffrey Newel*	John I. Vucchi*
Larry D. Burns	Connor A. Hayes	Andrew Pansulla	Xudong Wang
Matthew M. Clark*	Charles C. Hon	Jay Peters*	Christopher W. Williams
Roy R. Crawford	Phillip A. Johnson*	Justin M. Prosser	George A. Yaeger
Wesley R. Davis*	Nathan K. Kahre	Geoffrey Raifsnider	Chandra Yelamanchili
Payam Delgoshaei	James G. Kendzel*	Douglas T. Reindl*	Hiroshi Yoh
James W. Dominik	Bill Kinas	Brian J. Rodgers*	Shitong Zha

* Denotes members of voting status when the document was approved for publication

ASHRAE STANDARDS COMMITTEE 2025–2026

Adrienne G. Thomle, <i>Chair</i>	Susanne Dormann	Paul A. Lindahl, Jr.	Paolo M. Tronville
Jennifer A. Isenbeck-Pille, <i>Vice Chair</i>	Drake H. Erbe	Kenneth A. Monroe	Douglas K. Tucker
Anthony M. Abate	Marcus Hassen	Philip J. Naughton	Thomas E. Watson
Omar A. Abdelaziz	William M. Healy	Kathleen Owen	David P. Yuill
Charles S. Barnaby	Jaap Hogeling	Michael P. Patton	Patrick C. Marks, <i>BOD ExO</i>
Hoy R. Bohanon	Satish N. Iyengar	Karl L. Peterman	Devin A. Abellon, <i>CO</i>
Kelley P. Cramm	Phillip A. Johnson	Christopher J. Seeton	
Abdel K. Darwich	Tatsuro Kobayashi	Russell C. Tharp	

Ryan Shanley, *Senior Manager of Standards*

SPECIAL NOTE

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

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

DISCLAIMER

ASHRAE uses its best efforts to promulgate Standards and Guidelines for the benefit of the public in light of available information and accepted industry practices. However, ASHRAE does not guarantee, certify, or assure the safety or performance of any products, components, or systems tested, installed, or operated in accordance with ASHRAE's Standards or Guidelines or that any tests conducted under its Standards or Guidelines will be nonhazardous or free from risk.

ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.

(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 m streamlines the use of the terms “pipe,” “piping,” “tube,” and “tubing.” The term “piping” includes many additional components such as valves, fittings, etc. If the requirements are intended to apply only to the pipe itself, the term “pipe or tube” should be used. If the requirements are intended to apply to all components connected to the pipes (including the pipe or tube), the term “piping” should be used. This addendum also updates the language in Section 8 related to wall penetrations for piping.

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 m to Standard 15-2024

Modify Section 3 as follows. The remainder of Section 3 remains unchanged.

3. DEFINITIONS

[...]

liquid receiver: a vessel, permanently connected to a *refrigeration system* by inlet and outlet ~~pipes~~ piping, for storage of liquid *refrigerant*.

piping: the pipe or tube used to convey fluid from one part of a *refrigeration system* to another. *Piping* includes pipe, tube, flanges, bolting, gaskets, valves, fittings, pipe-supporting fixtures, structural attachments, and the pressure-containing parts of other components, such as expansion joints, strainers, filters, and devices that serve such purposes as mixing, separating, muffling, snubbing, distributing, metering, or controlling flow.

[...]

Modify Section 8 as follows. The remainder of Section 8 remains unchanged.

8. INSTALLATION RESTRICTIONS

[...]

8.10 Machinery Room, Special Requirements.

[...]

e. All ~~pipes piercing penetrations through~~ the interior walls, ceiling, or floor of such rooms *shall* be tightly sealed to the walls, ceiling, or floor through which they pass.

[...]

8.11.5 All ~~pipes piercing penetrations through~~ the interior walls, ceiling, or floor of such rooms *shall* be tightly sealed to the walls, ceiling, or floor through which they pass.

[...]

Modify Section 9 as follows.

9. DESIGN AND CONSTRUCTION OF REFRIGERATION EQUIPMENT AND SYSTEMS

9.4.7 When relief valves are connected to discharge to a common discharge *header*, as described in Section 9.7.9.3, a full-area *stop valve* is not prohibited from being installed in the discharge pipe or tube between the relief valve and the common *header*. When such a *stop valve* is installed, a locking device shall be installed to ensure that the *stop valve* is locked in the open position. This discharge *stop valve shall not* be shut unless one of the following conditions exists:

[...]

9.7.6 The rated discharge capacity of a *pressure relief device* expressed in lb of air/min (kg of air/s) *shall* be determined in accordance with *ASME Boiler and Pressure Vessel Code*,¹⁵ Section XIII. All ~~pipe and fit-~~

~~tings-piping~~ between the *pressure relief valve* and the parts of the *refrigeration system* it protects *shall* have at least the area of the *pressure relief valve* inlet area.

[. . .]

9.7.8.2 Discharging Location Exterior to Building.

[. . .]

- a. Relief vent lines that terminate vertically upward and are subject to moisture entry *shall* be provided with a drip pocket having a minimum of 24 in. (0.6 m) in length and having the size of the vent discharge pipe or tube. The drip pocket *shall* be installed to extend below the first change in vent pipe or tube direction and *shall* be fitted with a valve or drain plug to permit removal of accumulated moisture.

[. . .]

9.7.9.1 Discharge ~~Piping~~ Pipe, General. ~~Piping~~ Pipes, tubes, or fittings connected to the discharge side of a *fusible plug* or *rupture member* *shall* have provisions to prevent plugging of the pipes, tubes, or fittings upon operation of a *fusible plug* or *rupture member*.

[. . .]

9.7.9.2 The size of the discharge pipe, tube, or fittings from a *pressure relief device* or *fusible plug* *shall* not be less than the outlet size of the *pressure relief device* or *fusible plug*.

[. . .]

9.7.9.3.3 When outlets of two or more relief devices or *fusible plugs*, which are expected to operate simultaneously, connect to a common discharge pipe or tube, the common pipe or tube *shall* be sized large enough to prevent the *back pressure* at each *pressure relief device* from exceeding the maximum allowable *back pressure* in accordance with Section 9.7.9.3.2.

[. . .]

9.10 Refrigerant ~~Piping, Valves, Fittings, and Related Parts~~

9.10.1 General. ~~Refrigerant piping, valves, fittings, and related parts~~ *shall* conform to the requirements of Sections 9.10 through 9.13.

9.10.1.1 ~~Refrigerant piping, valves, fittings, and related parts~~ having a maximum internal or external *design pressure* greater than 15 psig (103.4 kPa gage) *shall* be listed either individually or as part of an assembly or a *refrigeration system* by a *nationally recognized testing laboratory*, or *shall* comply with ASME B31.5¹⁷ where applicable.

[. . .]

9.10.2 Reuse of Piping ~~Materials~~ on Existing Refrigeration Systems. Reused ~~pipe-piping, fittings, valves, or other materials~~ on existing *refrigeration systems* being renovated or modified *shall* be clean and free of foreign materials and *shall* comply with the requirements of Section 9.10.

[. . .]

9.11.3 Preparation of Pipe or Tube Ends. Pipe or tube *shall* be cut square, reamed, and chamfered and *shall* be free of burrs and obstructions. Pipe or tube ends *shall not* be undercut to reduce pipe wall below the minimum thickness as required for the application.

[. . .]

9.12 Refrigerant ~~Pipe-Piping~~ Installation

[. . .]

9.12.1.2 ~~Pipe-Piping~~ Protection. ~~Refrigerant piping~~ *shall* be located in one or more of the following:

[. . .]

9.12.1.7 ~~Pipe-Piping~~ Support. ~~Piping~~ *shall* be supported in accordance with ANSI/MSS SP-58.⁶³

9.12.1.8 ~~Pipe-Piping~~ Identification. ~~Refrigerant piping~~ located in areas other than the room or space where the refrigerating equipment is located *shall* be identified in accordance with ANSI/ASME A13.1.⁹ The ~~pipe-piping~~ identification *shall* be located at intervals not exceeding 20 ft (6.1 m) on the *refrigerant piping* ~~or pipe~~ insulation. The minimum height of lettering of the identification label *shall* be 0.50 in. (12.7 mm). The identification *shall* indicate the *refrigerant designation* and safety group classification of *refrigerant* used in the *piping* system.

[. . .]

9.12.2.1 ~~Pipe~~-Tube Protection. In addition to the requirements in Section 9.12.1.2, aluminum tube, copper tube, or steel tube for Group A2, A3, B2L, B2, and B3 *refrigerants* located in concealed locations where tubing is installed in studs, joists, rafters, or similar member spaces and located less than 1.50 in. (38 mm) from the nearest edge of the member, *shall* be continuously protected by shield plates. Protective steel shield plates having a minimum thickness of 0.0575 in. (1.461 mm) *shall* cover the area of the tube and *shall* extend a minimum of 2.0 in. (51 mm) beyond the outside edge of the tube.

[. . .]

9.12.4 Stress and Strain. *Refrigerant piping shall* be installed so as to prevent strains and stresses that exceed the structural strength of the pipe or tube. Where necessary, provisions *shall* be made to protect *pip-ing* from damage resulting from vibration, expansion, contraction, and structural settlement.

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.

ASHRAE · 180 Technology Parkway · Peachtree Corners, GA 30092 · www.ashrae.org

About ASHRAE

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

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.

To stay current with this and other ASHRAE Standards and Guidelines, visit www.ashrae.org/standards, and connect on LinkedIn, Facebook, Twitter, and YouTube.

Visit the ASHRAE Bookstore

ASHRAE offers its Standards and Guidelines in print, as immediately downloadable PDFs, and via ASHRAE Digital Collections, which provides online access with automatic updates as well as historical versions of publications. Selected Standards and Guidelines are also offered in redline versions that indicate the changes made between the active Standard or Guideline and its previous version. For more information, visit the Standards and Guidelines section of the ASHRAE Bookstore at www.ashrae.org/bookstore.

IMPORTANT NOTICES ABOUT THIS STANDARD

To ensure that you have all of the approved addenda, errata, and interpretations for this Standard, visit www.ashrae.org/standards to download them free of charge.

Addenda, errata, and interpretations for ASHRAE Standards and Guidelines are no longer distributed with copies of the Standards and Guidelines. ASHRAE provides these addenda, errata, and interpretations only in electronic form to promote more sustainable use of resources.