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

First Public Review Draft

Proposed Addendum m to Standard 15-2024, Safety Standard for Refrigeration Systems

First Public Review (December 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 proposed addendum addresses the use of the terms "pipe", "piping", "tube", and "tubing" by cleaning up the use of each. The most common occurrence is changing "pipe" to "piping" or "pipe" to "pipe or tube". These are important changes because when using the term piping, it includes many additional components like valves, fittings, etc. If we intend the requirements to apply only to the pipe itself, we need to use the term "pipe or tube". If we want to the requirements to apply to all components connected to the pipes(including the pipe or tube), we need to use the term "piping". Additionally this addendum cleans up the language in section 8 related to wall penetrations for piping.

Note: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (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 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. The remainder of Section 9 remains unchanged.

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 fittings~~ *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.

[…]

f. 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 B31.5 [17] where applicable.

[…]

9.10.2 Reuse of Piping ~~Materials~~ on Existing Systems. Reused ~~pipe~~ *piping*~~, fittings, valves, or other materials~~ on existing *refrigerant* 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 [55].

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, Scheme for Identification of Piping Systems[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 *piping* ~~piping~~ from damage resulting from vibration, expansion, contraction, and structural settlement.