



ADDENDA

2012 Supplement

**ANSI/ASHRAE Addenda b, c, d, e, and f to
ANSI/ASHRAE Standard 15-2010**

Safety Standard for Refrigeration Systems

See Appendix for approval dates.

These addenda were 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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site (www.ashrae.org) or in paper form from the Manager of Standards.

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

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- b. participation in the next review of the Standard,
- c. offering constructive criticism for improving the Standard, or
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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.

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NOTE

Approved addenda, errata, or interpretations for this standard can be downloaded free of charge from the ASHRAE Web site at www.ashrae.org/technology.

(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 clarifies the location requirements for machinery room mechanical ventilation. Section 8.11.3 states that "Machinery rooms shall be vented to the outdoors, utilizing mechanical ventilation in accordance with Sections 8.11.4 and 8.11.5." This addendum addresses the allowable locations for inlets/intakes to the exhaust ventilation. Additional guidance for the practicing engineer can be found in the User's Manual for ANSI/ASHRAE Standard 15-2001, including illustrations and suggested methods.

***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 b to Standard 15-2010

[Revise Section 8.11.4 as follows.]

8.11.4 Mechanical ventilation referred to in Section 8.11.3 shall be by one or more power-driven fans capable of exhausting air from the machinery room at least in the amount given in the formula in Section 8.11.5. To obtain a reduced airflow for normal ventilation, multiple fans or multispeed fans shall be used. Provision shall be made for inlet air to replace that being exhausted. Openings for inlet air shall be positioned to avoid recirculation. Air supply and exhaust ducts to the machinery room shall serve no other area. The discharge of the air shall be to the outdoors in such a manner as not to cause a nuisance or danger. The mechanical exhaust inlet(s) shall be located in an area where refrigerant from a leak is likely to concentrate, in consideration of the location of the replacement air path(s), refrigerating machine(s), and the density of the refrigerant relative to air.

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FOREWORD

This addendum clarifies that design pressure is expressed in terms of relative pressure or gauge pressure (not absolute pressure). This is consistent with the 2010 ASME Boiler & Pressure Vessel Code, Section VIII, Division 1, Subsection A “General Requirements,” Part UG “General Requirements for All Methods of Construction and All Materials,” paragraph UG-21, which states in part “Each element of a pressure vessel shall be designed for at least the

most severe condition of coincident pressure ... and temperature expected in normal operation. For this condition, the maximum difference in pressure between the inside and outside of a vessel, or between any two chambers of a combination unit, shall be considered.”

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

Addendum c to Standard 15-2010

[Revise the definition of design pressure as follows.]

3. DEFINITIONS

design pressure: the maximum gauge pressure for which a specific part of a refrigerating system is designed.

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FOREWORD

This addendum is intended to more closely harmonize Standard 15 with the 2012 International Mechanical Code (IMC) section 1101.10, which states:

1101.10 Locking access port caps. *Refrigerant circuit access ports located outdoors shall be fitted with locking-type tamper-resistant caps or shall be otherwise secured to prevent unauthorized access.*

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

Addendum d to Standard 15-2010

[Add Section 11.3.1 as follows.]

11. GENERAL REQUIREMENTS

...

11.3 Charging, Withdrawal, and Disposition of Refrigerants. No service containers shall be left connected to a system except while charging or withdrawing refrigerant. Refrigerants withdrawn from refrigerating systems shall be transferred to approved containers only. Except for discharge of pressure-relief devices and fusible plugs, incidental releases due to leaks, purging of noncondensibles, draining oil, and other routine operating or maintenance procedures, no refrigerant shall be discharged to the atmosphere or to locations such as a sewer, river, stream, or lake.

11.3.1 Refrigerant Access. Refrigerant circuit access ports located outdoors shall be secured to prevent unauthorized access.

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FOREWORD

This addendum removes an obsolete Appendix from Standard 15, pertaining to calculating allowable concentration for refrigerant blends. Similar information is now in Section 7.2 and Informative Appendix G of Standard 34-2010 but uses the more up-to-date term, "Refrigerant Concentration Limit" (RCL).

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

Addendum e to Standard 15-2010

[Remove Informative Appendix A in its entirety.]

~~INFORMATIVE APPENDIX A— CALCULATIONS OF THE MAXIMUM ALLOWABLE CONCENTRATION (C_m) OF A BLEND~~

~~A1.— FOR 100 lb OF BLEND, DETERMINE THE
IDEAL GAS VOLUMES OCCUPIED BY
EACH COMPONENT AND BY THE BLEND AT 70°F
AND 1 atm~~

...

~~A2.— DETERMINE THE DILUTION VOLUME
REQUIRED FOR THE 100 lb OF BLEND AND EACH
COMPONENT THEREIN~~

...

~~A3.— DETERMINE THE MAXIMUM ALLOWABLE
CONCENTRATION (C_m) OF A BLEND~~

...

(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 removes obsolete information from Standard 15-2010, as follow-up to the removal of Standard 15-2007 Appendix B (“Guidelines For Emergency Discharge of Refrigerants when Required by Local Codes”). For

reference, related information can be found in ANSI/HIAR Standard 2-2008.

***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 f to Standard 15-2010

[Remove Section 8.13 in its entirety and renumber the remainder of Section 8 accordingly.]

~~8.13 Manual Emergency Discharge of Ammonia Refrigerant.~~ ~~When required by the AHJ, manual emergency discharge or diffusion arrangements for ammonia refrigerants shall be provided.~~

(This appendix 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.)

**INFORMATIVE APPENDIX—
18-MONTH SUPPLEMENT: ADDENDA TO ANSI/ASHRAE STANDARD 15-2010**

This supplement includes Addenda b, c, d, e, and f to ANSI/ASHRAE Standard 15-2010. The following table lists each addendum and describes the way in which the standard is affected by the change. It also lists the ASHRAE and ANSI approval dates for each addendum.

Addendum	Section(s) Affected	Description of Change(s)*	ASHRAE Standards Committee Approval	ASHRAE BOD Approval	ANSI Approval
b	Section 8.11.4	This addendum clarifies the location requirements for machinery room mechanical ventilation.	January 21, 2012	January 25, 2012	January 26, 2012
c	Section 3	This addendum clarifies that design pressure is expressed in terms of relative pressure or gauge pressure (not absolute pressure).	January 21, 2012	January 25, 2012	January 26, 2012
d	Section 11.3	This addendum is intended to more closely harmonize Standard 15 with the 2012 International Mechanical Code (IMC) section 1101.10.	January 21, 2012	January 25, 2012	January 26, 2012
e	Appendix A	This addendum removes an obsolete Appendix from Standard 15, pertaining to calculating allowable concentration for refrigerant blends.	January 21, 2012	January 25, 2012	January 26, 2012
f	Section 8.13	This addendum removes obsolete information from Standard 15-2010, as follow-up to the removal of Standard 15-2007 Appendix B (“Guidelines For Emergency Discharge of Refrigerants when Required by Local Codes”).	January 21, 2012	January 25, 2012	January 26, 2012

* These descriptions may not be complete and are provided for information only.

NOTE

When addenda, interpretations, or errata to this standard have been approved, they can be downloaded free of charge from the ASHRAE Web site at <http://www.ashrae.org>.

**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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