



ADDENDA

**ANSI/ASHRAE Addendum e to
ANSI/ASHRAE Standard 15-2016**

Safety Standard for Refrigeration Systems

Approved by the ASHRAE Standards Committee on June 23, 2018; by the ASHRAE Technology Council on June 27, 2018; and by the American National Standards Institute on June 28, 2018.

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FOREWORD

Addendum e identifies the requirements that need to be met when changing the refrigerant, within the same refrigerant class per ASHRAE Standard 34. This addendum also lists the restrictions regarding mixing refrigerants from different refrigerant classes so that the original refrigerant class does not change. For example, a small amount of A3 refrigerant is added to a product containing an A1 refrigerant in order to improve oil circulation at low temperatures. However, the blend does not change the refrigerant from the original A1 refrigerant class.

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

Addendum e to Standard 15-2016

Modify Section 3 as follows.

3. DEFINITIONS

refrigerant designation: the unique identifying alphanumeric value or refrigerant number assigned to an individual refrigerant and published in ASHRAE Standard 34¹.

Modify Section 5 as follows.

~~**5.3 Changing Refrigerant.** A change in the type of refrigerant in a system shall not be made without the notification of the AHJ, the user, and due observance of safety requirements. The refrigerant being considered shall be evaluated for suitability.~~

5.3 Changing Refrigerant. Changes of refrigerant in an existing system to a refrigerant with a different refrigerant

designation shall only be allowed where in accordance with Sections 5.3.1 through 5.3.4.

5.3.1 The change of refrigerant shall be approved by the owner.

5.3.2 The change of refrigerant shall be in accordance with one of the following:

- a. Written instructions of the original equipment manufacturer.
- b. An evaluation of the system by a registered design professional or by an approved nationally recognized testing laboratory that validates safety and suitability of the replacement refrigerant.
- c. Approved by the AHJ.

5.3.3 Where the replacement refrigerant is classified into the same safety group, requirements that were applicable to the existing system shall continue to apply.

5.3.4 Where the replacement refrigerant is classified into a different safety group, the system shall comply with the requirements of this standard for a new installation, and the change of refrigerant shall require AHJ approval.

Modify Section 7 as follows.

7.5 Additional Restrictions

7.5.1 All Occupancies. Sections 7.5.1.1 through 7.5.1.8 apply to all occupancies.

[. . .]

7.5.1.7 Mixing of Refrigerants. Refrigerants, ~~including refrigerant blends,~~ with different refrigerant designations in ASHRAE Standard 34¹ shall ~~not~~ only be mixed in a system in accordance with both of the following:

~~**Exception:**~~

- a. ~~**Addition**~~ The addition of a second refrigerant is allowed ~~where specified by the equipment manufacturer to improve oil return at low temperatures. The refrigerant and amount added shall follow~~ and is in accordance with the manufacturer's written instructions.
- b. The resulting mixture does not change the refrigerant safety group.

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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