



**BSR/ASHRAE Addendum c
to ANSI/ASHRAE Standard 15-2019**

Public Review Draft

**Proposed Addendum c to
Standard 15-2019, Safety Standard
for Refrigeration Systems**

**Second Public Review (June 2020)
(Draft shows Proposed Independent Substantive
Changes to Previous Public Review Draft)**

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FOREWORD

This addendum proposes changes to allow the use of equipment using small amounts of non-A1 refrigerants, only if they are listed to appropriate product safety standards. The proposal is consistent with research findings, and the published requirements of product safety standards such as UL 484 and UL 60335-2-40.

One clarifying change from comments received on the first publication public review draft is proposed by the committee.

Note: The draft of Addendum c that was used for the First Publication Public Review is replaced in its entirety by this Second Independent Substantive Changes Public Review Draft. Substantive changes to the First Public Review Draft and related changes to Standard 15-2019 are indicated by blue-colored text with underlining (for additions) and strikethrough (for deletions). **Only these changes in blue are open to comment.** Editorial comments are not open for comment. Other sections of Standard 15-2019 that are unchanged are also not open for comment.

Addendum c to Standard 15-2019

Modify Section 7 as follows. The remainder of Section 7 remains unchanged.

7. RESTRICTIONS ON REFRIGERANT USE

[...]

7.2 Refrigerant Concentration Limits

[...]

Exceptions to 7.2:

1. Listed equipment in locations other than public corridors and lobbies containing not more than 6.6 lb (3 kg) of refrigerant, regardless of its refrigerant safety classification, is exempt from Section 7.2, provided the equipment is installed in accordance with the listing and with the *manufacturer's* installation instructions.

7.5 Additional Restrictions

[...]

7.5.1.2 ~~Corridors and Lobbies. Refrigerating~~ Refrigeration systems installed in a public corridor or lobby shall comply with the following:

1. Refrigeration systems shall be limited to unit systems.
2. The refrigerant charge shall be limited based on the RCL, as specified in Section 7.2. ~~Section 7.2, Exception 1 for 6.6 lb (3 kg) of refrigerant in listed equipment shall not apply to refrigeration systems in a public corridor or lobby.~~
3. Refrigeration systems containing Class 2L, 2, or 3 refrigerants shall be listed, and the refrigerant charge shall be limited for each unit system, calculated in accordance with the following equation:

$$\underline{m_{\max} = 0.106 \times LFL} \quad \text{(I-P)}$$

$$\underline{m_{\max} = 3 \times LFL} \quad \text{(SI)}$$

where

$$\underline{m_{\max}} \quad \equiv \quad \underline{\text{maximum charge quantity, lb (kg)}}$$

LFL ≡ lower flammability limit per ASHRAE Standard 34, pounds per 1000 ft³ (kg per m³)

0.106 ≡ a constant with units of “1000 ft³”

3 ≡ a constant with units of “m³”

~~containing not more than the quantities of Group A1 or B1 *refrigerant* indicated in ASHRAE Standard 34², Table 4.1 or 4.2.~~