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

Second Public Review Draft

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

Second Public Review (September 2025)
(Draft shows Proposed Changes to Current Standard)

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FOREWORD

This proposed addendum y is in response to CMP 15-2022-0010-001 regarding release mitigation controls. It intends to better harmonize releasable charge and release mitigation control requirements with the product design standards, UL 60335-2-40 and UL 60335-2-89. Addendum y also intends to provide greater clarity around what portions of an independent circuit are impacted by signals from a refrigerant detector or refrigerant detection system.

As much of the language from the first Publication Public Review has been modified or replaced, this PPR2 completely replaces PPR1.

Addendum y to Standard 15-2024

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

7. RESTRICTIONS ON REFRIGERANT USE

[…]

7.3 Refrigerant Charge Limits.

[…]

7.3.4 Releasable Refrigerant Charge (m_{rel}) Determination.

[…]

7.3.4.4* Release Mitigation Controls. Release mitigation controls used to limit the *releasable refrigerant charge* (m_{rel}) *shall* comply with the following:

a.* Release mitigation ~~systems~~ controls *shall* be components of a *refrigeration system* that is *listed* per UL 60335-2-40[5] /CSA C22.2 No. 60335-2-40[6] or UL 60335-2-89[7] /CSA C22.2 No. 60335-2-89[8] and evaluated by the *nationally recognized testing laboratory* as part of the listing.

~~b. Release mitigation controls *shall* only be permitted for reducing the *releasable refrigerant charge* (m_{rel}) on a *refrigeration system* where each indoor unit has a cooling capacity of 5 tons (17.5 kW) or less.~~

~~c. Release mitigation controls *shall* be activated by a *refrigerant detection system*. A *refrigerant detector shall* be located either in all refrigeration equipment serving the spaces or in all spaces served by the release mitigation controlled circuit. The *refrigerant detector shall* activate the release mitigation controls and isolate all possible paths of *refrigerant* that can leak into the space(s).~~

b. Release mitigation controls *shall* be activated by a *refrigerant detection system*. A *refrigerant detector shall* be located either in all refrigeration equipment serving the spaces or in all spaces served by the release-mitigation-controlled circuit. Where a *refrigerant detection system* determines that a signal is provided by one or more specific *refrigerant detectors*, the *refrigerant detection system shall* isolate the specific portions of the *independent circuit(s)* associated with the *refrigerant detector(s)* that have generated output signals.

~~d. In the event of a failure of the release mitigation controls or a *refrigerant detector*, the release mitigation controls *shall* isolate all possible paths of *refrigerant* that can leak into the space(s).~~

c. For a *refrigeration system* monitored by one or more *refrigerant detection systems*, in the event of a failure of a *refrigerant detection system*, the release mitigation controls *shall* isolate the specific portion of the *independent circuit(s)* monitored by the failed *refrigerant detection system*.

~~c~~d. *Refrigerant detectors shall* comply with Section 7.6.2.4 and *shall* activate the release mitigation controls per Section 7.6.2.5. For Group A1 *refrigerants*, 100% of *RCL shall* be substituted in place of 25% of *LFL*.

~~f~~e. The location of ~~*refrigerant*~~ release mitigation controls *shall* be marked in accordance with the requirements of ASME A13.1.[9]

~~e~~f. […]

~~h~~g. […]

~~i~~h. […]

[…]

Modify Informative Appendix A as follows. The remainder of the appendix remains unchanged.

INFORMATIVE APPENDIX A
EXPLANATORY MATERIAL

Sections of the standard with associated explanatory information in this appendix are marked with an asterisk "*" after the section number.

[…]

Section 7.3.4.4

Release mitigation controls include all mechanical and electronic controls of a system which perform actions to limit the release of *refrigerant* into an indoor space.

When a *safety shutoff valve* is utilized to limit the release of *refrigerant* and is controlled by a *refrigerant detection system*, the calculations of Section 7.3.4.3 are used to determine the quantity of *refrigerant* that can be released.

Section 7.3.4.4(a): Appliances or equipment listed to UL 60335-2-40 [5]/CSA C22.2 No. 60335-2-40 [6] and UL 60335-2-89 [7]/CSA C22.2 No. 60335-2-89 [8] have met requirements specific to one of the permissible methods for limiting the release of *refrigerant*. The quantity of *releasable refrigerant charge* determined from these requirements is labeled on the appliance or equipment. These methods are not limited to only a *safety shutoff valve* controlled by a leak detection system or *refrigerant detection system*. Other methods that do not utilize a *safety shutoff valve* controlled by a detection system are tested in every operational state of the *refrigeration system*, and the mitigation design requirements to determine the minimum room size are based on the worst-case operating state of the appliance or equipment.

[…]