



**BSR/ASHRAE Addendum I  
to ANSI/ASHRAE Standard 15-2024**

**Public Review Draft**

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

**First Public Review (April, 2026)  
(Draft shows Proposed Changes to Current Standard)**

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at [www.ashrae.org/standards-research-technology/public-review-drafts](http://www.ashrae.org/standards-research-technology/public-review-drafts) and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore) or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

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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 to ASHRAE Standard 15-2024 adds a new section and updates Sections 7.6.2.5(f), 7.6.3.2, and 8.11.6.2(d). The current standard uses the phrase “unclassified electrical devices”. The term “unclassified” is not defined and may be confusing to users not familiar with hazardous location (classified) requirements of the National Electric Code (NFPA 70). This addendum improves the language by using the phrase “sources of ignition” and then addresses electrical sources of ignition. The addendum creates a new Section 7.9 which delineates what is or is not a potential source of ignition. A future addendum is anticipated to address flames and hot surfaces as other sources of ignition in additional subsections to Section 7.9. Section 8.11.6.2.d is also updated to be consistent for machinery room applications.*

**Note:** This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strike through~~ (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 I to Standard 15-2024

*Modify Section 7 as follows. The remainder of Section 7 is unchanged.*

#### 7. RESTRICTIONS ON REFRIGERANT USE

7.6\* High-Probability Air Conditioners, Heat Pumps, and Dehumidifiers Using Group A2L Refrigerants. [...]

7.6.2 Listing and Installation Requirements. [...]

7.6.2.5\* Mitigation Action Requirements [...]

~~f.\* De-energize potential ignition sources, including open flames and unclassified electrical sources of ignition with apparent power rating greater than 1 kVA, where the apparent power is the product of the circuit voltage and current rating.~~

f.\* De-energize the following potential ignition sources in the ductwork, unless continuing operation is permitted by the equipment *manufacturer’s* instructions:

1. sources of ignition per Section 7.9
2. open flames.

7.6.3 Ignition Sources Located in Ductwork [...]

7.6.3.2 ~~Unclassified electrical devices~~ Electrical sources of ignition per Section 7.9 shall not be located within the ductwork that serves the space.

7.9\* Sources of Ignition. This section shall be used to determine whether a device is considered a potential source of ignition. [...]

7.9.1 Electrical devices complying with at least one of the following Sections 7.9.1(a) through 7.9.1(d) shall not be considered potential sources of ignition:

a. **Devices that are a part of listed equipment.** A device that complies with at least one of the following:

1. The device is part of a *listed refrigeration system* per UL 60335-2-40<sup>5</sup> / CSA C22.2 No. 60335-2-40<sup>6</sup> or UL 60335-2-89<sup>7</sup> / CSA C22.2 No. 60335-2-89<sup>8</sup> and evaluated by an *NRTL* as part of the listing.
2. Where only Group A2L *refrigerant* is used within the applicable *effective dispersal volume*, the device is part of a *listed electric duct heater* per UL 1996<sup>69</sup>.
3. The device is within an electrical enclosure that is *listed* to UL 60079-15<sup>70</sup> / CSA C22.2 No. 60079-15<sup>71</sup> for restricted breathing enclosures suitable for use with all *refrigerant designations* applicable to the space.
4. The device is within an electrical enclosure that is *listed* to UL 60079-2<sup>72</sup> / CSA C22.2 No. 60079-2<sup>73</sup>.

b. **Listed device.** Devices meeting at least one of the following:

1. The device has been evaluated by an *NRTL* and *labeled* in accordance with an *approved safety standard for use with all Group A2L refrigerants* or with the specific *Group A2L refrigerant designation* as applicable to the space.
2. The device is *listed* to UL 121201<sup>74</sup> / CSA C22.2 No. 213-17<sup>75</sup>, or UL1203<sup>76</sup> / CSA C22.2 No. 30:20<sup>77</sup>

c. **Service.** The device is a manual disconnect switch used only by *authorized personnel* during service and maintenance.

d.\* **Non-protected high energy.** Electrical devices where only Group A2L *refrigerants* are used within the applicable *effective dispersal volume*, and the device has an apparent power rating less than 1.00 kVA.

**Modify Section 8 as follows. The remainder of Section 8 is unchanged.**

## 8. INSTALLATION RESTRICTIONS

[...]

### 8.11 Machinery Room, Special Requirements, A2L and B2L.

[...]

#### 8.11.6.2 Detection of *refrigerant* concentration...

[...]

d. Other ~~unclassified~~ electrical sources of ignition with an apparent power rating greater than 1.00 kVA, where the apparent power is the product of the circuit voltage and current rating, that are not marked as suitable for use in a Class I, Division 2 hazardous location.

[...]

**Modify Section 13 as follows. The remainder of Section 13 is unchanged.**

## 13. NORMATIVE REFERENCES

This section contains a complete list of normative references. [...]

[...]

69. UL. 2022. UL 1996 *Electric Duct Heaters*, 4th edition, revision date August 30, 2022. Northbrook, IL: UL LLC.

70. UL. 2020. UL 60079-15 *Explosive atmospheres – Part 15: Equipment Protection by Type of Protection “n”*, 5<sup>th</sup> Edition. Northbrook, IL: UL LLC.

71. CSA. 2018. CSA C22.2 No. 60079-15 (R2023) *Explosive atmospheres – Part 15: Equipment protection by type of protection “n”*, 3<sup>rd</sup> Edition. Toronto, ON: CSA Group.

72. UL. 2017. 60079-2 *Explosive Atmospheres – Part 2: Equipment Protection by Pressurized Enclosure “p”*, 6<sup>th</sup> Edition. Northbrook, IL: UL LLC.

73. CSA. 2016. CSA C22.2 No. 60079-2. (R2021) *Explosive atmospheres – Part 2: Equipment protection by pressurized enclosure “p”*, 2<sup>nd</sup> Edition. Toronto, ON: CSA Group.

74. UL. 2017. UL 121201 *Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations*, 9<sup>th</sup> Edition. Northbrook, IL: UL LLC.

75. CSA. 2017. CSA C22.2 No. 213-17 (R2022) *Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations*, 3<sup>rd</sup> Edition. Toronto, ON: CSA Group.

- [76. UL. 2015 1203. \*Explosion-Proof and Dust- Ignition-Proof Electrical Equipment for Use in Hazardous \(Classified\) Location\*, revision date January 30, 2017. Northbrook, IL: UL LLC.](#)  
[77. CSA C22.2 No.30:20. 2020. Explosion-proof equipment, Toronto, ON: CSA Group.](#)

***Modify Informative Appendix A as follows. The remainder of Informative Appendix A is 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 7.9**

Sources of ignition include devices with sufficient energy to initiate a sustained combustion process for a given gas or vapor (e.g. *refrigerant*). Sources of flammable *refrigerant* ignition can be electrical (e.g. arcs or sparks), thermal (e.g. hot surfaces), or a pre-existing flame from another combustion process (e.g. a fuel gas burner or pilot flame). Ignition sources in locations protected from *refrigerant* dispersal, or sufficiently distant from a point of *refrigerant* release, are not considered potential ignition sources for the purpose of this standard.

#### **Section 7.9.1(d)**

The apparent power is the product of the nameplate voltage and current rating. For example, a device with rated voltage of 120 volts (AC, rms) and rated current of 15 amps (AC, rms), the apparent power is  $120 [V] \times 15[A] = 1800 [VA] = 1.8 [kVA]$ .