ERRATA SHEET FOR ANSI/ASHRAE STANDARD 15-2022,
Safety Standard for Refrigeration Systems

July 17, 2023

The corrections listed in this errata sheet apply to ANSI/ASHRAE Standard 15-2022. The outside back cover marking identifying the first printing is "Product code: 86306 9/22". Shaded items have been added since the previously published errata sheet dated May 30, 2023 was distributed.

(Note: Additions are shown in <u>underline</u> and deletions are shown in ~~strikethrough~~.)

Page	**Erratum**
7	**3.1 Defined Terms.** In Section 3.1 change the definition of *system refrigerant charge* from "m_c" to "m_s" as shown below. *system refrigerant charge (<u>m_s</u>~~m_c~~):* the total mass of *refrigerant* in an *independent circuit* of a system, including both factory and field *refrigerant* charge.
12-15	**7.3.2* Institutional Occupancies Refrigerant Systems Charge Limits.** Remove the asterisk from Sections 7.3.2, 7.3.3 and 7.3.4 as shown below highlighted in yellow. **7.3.2* Institutional Occupancies Refrigerant Systems Charge Limits.** […] **7.3.3* Industrial Occupancies and Refrigerated Rooms.** […] **7.3.4* Releasable Refrigerant Charge (m_{rel}) Determination.** […]
13	**Figure 7-1 Refrigerant system charge limit compliance path – Part 1**. Revise Figure 7-1 as shown in the attached.
18	**7.6.1.2* Other Refrigeration Systems.** Revise Section 7.6.1.2 as shown below. **7.6.1.2* Other Refrigeration Systems.** For any refrigeration system not meeting the requirements of Section 7.6.1.1, the *refrigerant* charge of the largest *independent circuit* of the system (m_s) *shall not* exceed the value from Equation 7-9: $$EDVC = M_{def} \times F_{LFL} \times F_{occ} \qquad (7\text{-}9)$$ where *EDVC = effective dispersal volume charge,* <u>lb (kg)</u> ~~ft³ (m³)~~ […]
20	**Table 7-2 Refrigerant Charge Limit (M_{def}), kg (SI).** Revise the middle column (Height = 1.80 m) of the first row (Floor Area = 5 m²) of Table 7-2 as follows: ~~18~~ <u>1.8</u>
21	**7.6.4 Mechanical Ventilation.** Revise Section 7.6.4 as shown below, to remove use of italics font. **7.6.4* Mechanical Ventilation.** Mechanical ventilation for *refrigerant* safety mitigation *shall* comply with this section. Where a *ventilated enclosure* is provided to control a *refrigerant* leak, the refrigeration system and *ventilated enclosure shall* be *listed* and installed in accordance with UL 60335-2-40[5]/CSA C22.2 No. 60335-2-40[6] and *shall not* be required to comply with this

section.

a. Mechanical ventilation *shall* be provided that will remove leaked *refrigerant* from the space where *refrigerant* leaking from the refrigeration system is expected to accumulate. The space *shall* be provided with an exhaust or transfer fan. Fans used to <u>exhaust air</u> ~~exhaust air~~ from the space or transfer air to a separate indoor space *shall* comply with Equation 7-10:
[…]

27   **8.11.9.** In Section 8.11.9 change "Section 8.11.6" to "Section 8.11.8" as shown below.

       8.11.9 *Refrigerant detectors* required by Section <u>8.11.8</u> ~~8.11.6~~ *shall* meet all of the following conditions:
[…]

29   **Table 8-3 Calculation Method Equations.** Revise the coefficient in one equation as shown below.

$$Q' = \text{\sout{0.400}} \ \underline{6.67} \times P^{0.62} \qquad \text{(SI)}$$

31   **Figure 8-2 Level 2 ventilation rate for Class 2L refrigerants (SI) with (b) detail.** Revise Figure 8-2 detail (b) as follows for five instances of chart labels:

1.9 ~~L/s~~ <u>m³/s</u>, 8.5 kg
1.6 ~~L/s~~ <u>m³/s</u>, 10 kg
1.4 ~~L/s~~ <u>m³/s</u>, 12 kg
1.2 ~~L/s~~ <u>m³/s</u>, 15 kg
0.88 ~~L/s~~ <u>m³/s</u>, 19 kg

63   **INFORMATIVE APPENDIX A EXPLANATORY MATERIAL.** Revise Informative Appendix A as shown below.

[…]
~~**Section 7.3.2**~~
~~When a refrigeration system does not have a *refrigerant detector*, there will not necessarily be circulation (or ventilation) airflow. Thus, systems in accordance with Section 7.3.2 (no *refrigerant* detection and/or no continuous airflow), must use the worst-case distribution of leaked *refrigerant*.~~

~~**Section 7.3.3**~~
~~For refrigeration systems that do have a *refrigerant detector* but do not have ventilation, the airflow will mix leaked *refrigerant* throughout the spaces connected to ductwork; therefore, the volume of all rooms connected by ductwork is used.~~

~~**Section 7.3.4**~~
~~For refrigeration systems with *refrigerant* detection and ventilation, circulation will distribute leaked *refrigerant* throughout the rooms connected to the ductwork as well as locations connected to the ventilation.~~

Figure 7-1 Refrigerant system charge limit compliance path – Part 1

NO

Is the equipment <u>listed,</u> self-contained, located in a commercial occupancy, not located in a public corridor or lobby, with a refrigerant charge $m_s \leq 22$ lb (10 kg)?

YES

NO