



North Central Texas
Council of Governments

Recommended Amendments to the 2024 International Mechanical Code

North Central Texas Council of Governments Region

The following sections, paragraphs, and sentences of the *2024 International Mechanical Code* (IMC) are hereby amended as follows: Standard type is text from the IMC. Underlined type is text inserted. ~~Lined through type is deleted text from the IMC.~~ A double asterisk at the beginning of a section identifies an amendment carried over from the 2021 edition of the code and a triple asterisk identifies a new or revised amendment of the 2024 edition of the code.

Note: Historically the North Central Texas Council of Governments (NCTCOG) has limited Chapter 1 amendments in order to allow each city to insert their local policies and procedures. We now have suggested certain items to be brought to the attention of cities considering adoption of the code that may be of concern to several jurisdictions. **It is still intended to be discretionary to each city to determine which Chapter 1 amendments to include.**

****Section 102.8; change to read as follows:**

102.8 Referenced Codes and Standards. The codes and standards referenced herein shall be those that are listed in Chapter 15 and such codes and standards, when specifically adopted, shall be considered part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.

Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered to reference the adopted amendments. Any reference to NFPA 70 shall mean the National Electrical Code as adopted.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the *equipment* or *appliance*, the conditions of the listing and the manufacturer's installation instruction shall apply.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

*****Section 202; add definition of Effective Dispersal Volume Charge as follows:**

Effective Dispersal Volume Charge (EDVC). The maximum refrigerant charge permitted for an effective dispersal volume.

(Reason: These are additional terms used in ASHRAE 15 to determine refrigerant concentrations and methods to mitigate refrigerant concentrations from exceeding the refrigerant concentration limit.)

*****Section 202; add definition of Refrigerant Detection System as follows:**

Refrigerant Detection System - The product safety standard addresses both refrigerant detection systems and leak detection systems. In the product safety standard, a leak detection system is defined as "a sensing system which responds to refrigerant leaking from a refrigerating system." A leak detection system may include gas sensing, ultrasonic, or other such methods that meet the standards UL 60335-2-40/CSA C22.2 No. 60335-2-40 or UL 60335-2-89/CSA C22.2 No. 60335-2-89. [ASHRAE 15-2022: 3.1]

(Reason: These are additional terms used in ASHRAE 15 to determine refrigerant concentrations and methods to mitigate refrigerant concentrations from exceeding the refrigerant concentration limit.)

*****Section 202; add definition of Refrigerant Detector as follows:**

Refrigerant Detector - "Refrigerant sensor" is another term for refrigerant detector. A refrigerant sensor is a sensing element combined with electronic circuitry that provides a digital output or an analog signal output that corresponds to the sensed refrigerant gas concentration. [ASHRAE 15-2022: 3.1]

(Reason: These are additional terms used in ASHRAE 15 to determine refrigerant concentrations and methods to mitigate refrigerant concentrations from exceeding the refrigerant concentration limit.)

****Section 306.3; change to read as follows:**

306.3 Appliances in attics. Attics containing *appliances* shall be provided with an opening and unobstructed passageway large enough to allow removal of the largest *appliance*. The passageway shall be not less than 30 inches (762 mm) high and 22 inches (599 mm) wide and to more than 20 feet (6096 mm) in length measured along the centerline of the passageway from the opening to the *appliance*. The passageway shall have continuous solid flooring not less than 24 inches (610 mm) wide. A level service space not less than 30 inches (762 mm) deep and 30 inches (762 mm) wide shall be present at the front or service side of the *appliance*. The clear access opening dimensions shall be not less than 20 inches by 30 inches (508 mm by 762 mm), and large enough to allow removal of the largest appliance. As a minimum access to the attic space shall be provided by one of the following:

1. A permanent Stair.
2. A pull-down stair with a minimum 300 lb (136 kg) capacity.
3. An access door from an upper floor level.

Exceptions:

1. The passageway and level service space are not required where the *appliance* is capable of being serviced and removed through the required opening with the approval of the code official.
2. Where the passageway is unobstructed and not less than 6 feet (1829 mm) high and 22 inches (559 mm) wide for its entire length, the passageway shall be not greater than 50 feet (15,250 mm) in length.

(Reason: To provide adequate access to appliances for service or replacement with safe access.)

****Section 306.5.1; change to read as follows:**

306.5.1 Sloped Roofs. Where appliances, *equipment*, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal (25-percent slope) or greater and having an edge more than 30 inches (762 mm) above grade at such edge, a catwalk at least 16 inches in width with substantial cleats spaced not more than 16 inches apart shall be provided from the roof access to a level platform at the appliance. The level platform shall be provided on each side of the *appliance* or *equipment* to which access is required for service, repair or maintenance. The platform shall be not less than 30 inches (762 mm) in any dimension and shall be provided with guards. The guards shall extend not less than 42 inches (1067 mm) above the platform, shall be constructed so as to prevent the passage of a 21-inch-diameter (533 mm) sphere and shall comply with the loading requirements for guards specified in the *International Building Code*...{remainder of text unchanged}.

(Reason: To assure safe access to roof appliances. Consistent with IFGC amendments.)

****Section 501.3; add an exception to read as follows:**

501.3 Exhaust Discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in Section 501.3.1. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic, crawl space, or be directed onto walkways.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units having private attics.
2. Commercial cooking recirculating systems.
3. Where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.
4. Toilet room exhaust ducts may terminate in a warehouse or shop area when infiltration of outside air is present.

(Reason: Provide a reasonable alternative in areas where a large volume of outside air is present.)

****Section 1104.2 Machinery Room ; add an exception to read as follows:**

Exception

3. Machinery Rooms are not required when in compliance with ASHRAE 15 Section 7.4.

(Reason: Using the ASHRAE 15 machinery room requirements, the single and multiple circuit refrigeration systems use release mitigation strategies to safely isolate a section to prevent a full single circuit discharge of a refrigerant with automatic safety shutoff valves. An example of this is in VRF systems where Branch selector boxes/Heat recovery units)

***** Section 1104.3.1.1 Group A2L High-Probability Systems. Add this section to read:**

1104.3.1.1 Group A2L High-Probability Systems. High-probability systems using Group A2L refrigerants shall comply with ASHRAE 15 section 7.6.

(Reason: The 2024 IMC permits the use of Group A2L High-probability systems; however, it does not cover the safe limits and refrigerant detection and mitigation requirements for systems outside of a machinery room.)

*****Section 1109.2.5 Refrigerant pipe shafts. Change to read:**

[Existing text to remain]

Exceptions:

1. [Existing text to remain]
2. Piping in a direct refrigeration system ~~using Group A1~~ where the refrigerant quantity does not exceed the limits of Table 1103.1 for the smallest occupied space through which the piping passes.
3. [Existing text to remain]

(Reason: This will make the IMC consistent with Section 9.12.1.5 of ASHRAE 15-2022. Note that IMC Section 1109.2.2 still requires piping protection, either within building elements or protective enclosures. This is in line with both ASHRAE 15-2019 section 8.10.2 and ASHRAE 15-2022 section 9.12.1.5.1 where the refrigerant safety group is not mentioned, only the refrigerant concentration limit (RCL). The RCL for groups other than A1 is either 25% of the LFL or lower to account for flammability, toxicity, and oxygen deprivation.)

END