

DIVISION 12-II-4 MECHANICAL CODE

Sec 12-17.3 Same; Additions, Insertions, Deletions And Changes

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The following sections of the **2024** International Mechanical Code adopted in section 12-16 is hereby revised as follows:

101.1 is amended to read:

These regulations shall be known as the Mechanical Code of The City of Aurora, hereinafter referred to as "this code".

103.1 is amended to read:

The Division of Building and Permits under the Developments Services Department is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

Section 106.5.2 Insert: 108.2 is amended to read:

See International Building Code Section 109.

Subsection 106.5.3 shall be changed to read as follows: 108.6 is amended to read:

~~106.5.3~~ The code official shall authorize the refunding of fees per the International Building Code Section 109.6.

112.1 is amended to read:

Means of appeal to this code shall be in accordance with the provisions of the 2024 Aurora Building Code.

112.2 is deleted.

112.3 is deleted.

112.4 is deleted.

113.1 is amended to read:

The board of appeals shall be in accordance with Sec 2-540 of the City of Aurora Code of Ordinances.

The following Subsection shall be added to section 108.4: 114.4 is amended to read:

~~108.4.1~~ Violation Penalties shall be as prescribed in the International Building Code Section 114.4.

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The following Subsection shall be added to section 108.5: 115.2.1 is added to read:

~~108.5.1~~ Unlawful continuance fines shall be as prescribed in the International Building Code Section 115.3.

202 add the following definitions:

Connected Spaces (Refrigeration). Two or more spaces connected by natural ventilation, a ducted air distribution system, or mechanical ventilation.

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Effective Dispersal Volume. The volume of a space or connected spaces in which leaked refrigerant will disperse.

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

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306.5.3. is added to read:

A hose bib shall be provided within 200 feet of any serviceable equipment located on a roof more than 16 feet above grade plane and greater than 5000 square feet in area. Hose bibs shall be installed in accordance with the Illinois Plumbing Code.

506.3.2.6 is added to read:

Prior to final inspection of the grease duct installation:

1. Welded grease ducts - a certified welder shall certify with signature on company letter head that the grease duct: Has been manufactured and installed in a fully code compliant manner under their direct supervision. Has been sealed with code compliant gasketing materials rated at 1500 degrees Fahrenheit. Has been installed with liquid-tight welds made on the external surface of the duct. Has passed a light test as prescribed above, performed by the named certified welder.

2. Factory-built grease ducts – The installing contractor shall certify with signature on company letter head that the grease duct: Has been installed in a fully code compliant manner under their direct supervision. Has been sealed with code compliant gasketing materials rated at 1500 degrees Fahrenheit. Has been installed liquid-tight with sealant approved by the manufacturer. Has been installed in accordance with the manufacturer's installation requirements. Has passed any manufacturer suggested tests as prescribed and performed by the contractor listed on permit or an approved third-party. Subsection 109 Means of Appeals shall be deleted and the following text inserted:

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506.3.11.3.1 Preliminary meeting is added to read:

Prior to the installation of factory-built grease duct the installing contractor shall schedule a meeting with the inspector to confirm the installation requirements from the manufacturer and inspection requirements of the city.

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~~109.1 Appeals. Appeals to this code shall be conducted as prescribed in the adopted International Building Code.~~

~~The following Subsections shall be added to Subsection 602.1:~~ 602.1.4 Construction Drawings is added to read:

~~602.1.1 Plenum.~~ Plenums shall be clearly defined in the construction drawings.

~~602.2.1 is deleted.~~

~~602.1.2 602.3.11~~ Plenum Marking and Identification is added to read:-

~~Plenums shall be effectively and permanently identified with signage. Signage shall be posted prior to the first above ceiling inspections. Such identification shall:~~

~~602.1.2.1.1~~ Be located in accessible concealed floor or floor ceiling spaces.

~~602.1.2.2-2.~~ Be repeated at intervals not exceeding 30 feet measured horizontally along walls ~~that define the plenum.~~

~~602.1.2.3-3.~~ Include lettering not less than ½" in height: incorporating the suggested wording:

~~"THIS CAVITY IS A MECHANICAL SYSTEM PLENUM. ALL COMBUSTIBLE MATERIALS MUST CONFORM TO IMC."~~

~~603.5.1 is deleted.~~

~~901.5 is added to read:~~The following subsection shall be added to Section 901:

~~901.4~~

~~Any penetration of the firebox area made by a gas pipe shall be sealed by mortar or other method approved by the code official.~~

~~1101.1.1 is amended to read:~~

~~Refrigeration systems using a refrigerant other than ammonia shall comply with this chapter, the International Fire Code and either ASHRAE 15 or ASHRAE 15.2 as applicable. Refrigeration systems containing carbon dioxide as the refrigerant shall also comply with IAR CO2.~~

~~1104.2 is amended to read:~~

~~Except as provided in Sections 1104.2.1 and 1104.2.2, all components containing the refrigerant shall be located either outdoors or in a machinery room where the quantity of refrigerant in an independent circuit of a refrigeration system exceeds both of the following:~~

- ~~1. The amounts shown in Table 1103.1 and~~
- ~~2. The effective discharge volume charge as calculated in accordance with ASHRAE 15.~~

~~For refrigerant blends not listed in Table 1103.1, the same requirement shall apply for each component. These requirements shall also apply where the combined amount of the blend components exceeds a limit of 69,100 parts per million (ppm) by~~

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volume. Machinery rooms required by this section and containing only Group A1 and B1 refrigerants shall be constructed and maintained in accordance with Section 1105. Machinery rooms required by this section and containing any Group A2, B2, A3, or B3 flammable refrigerants, shall be constructed and maintained in accordance with section 1105 and sections 1106.4.1 through 1106.4.3.

Exceptions:

- 1. Machinery rooms are not required for listed equipment and appliances containing not more than 6.6 pounds (3 kg) of refrigerant, regardless of the refrigerant's safety classification, where installed in accordance with the equipment's or appliance's listing and the equipment or appliance manufacturer's installation instructions.
- 2. Piping in compliance with Section 1107 is allowed in other locations to connect components installed in a machinery room with those installed outdoors.

1104.3.2 is amended to read:

Group A2 and B2 refrigerants shall not be used in high-probability systems. Group A3 and B3 refrigerants shall not be used except where approved.

Exceptions:

- 1. Laboratories where the floor area per occupant is not less than 100 square feet (9.3 m²).
- 2. Listed self-contained systems having a maximum of 0.331 pounds (150 g) of Group A3 refrigerant.
- 3. Industrial occupancies.
- 4. Equipment listed for and used in residential occupancies containing a maximum of 6.6 pounds (3 kg) of Group A2 or B2 refrigerant.
- 5. Equipment listed for and used in commercial occupancies containing a maximum of 22 pounds (10 kg) of Group A2 or B2 refrigerant.
- 6. Self-contained equipment using groups A3 and B3 refrigerants that are listed to UL 60335-2-89 and installed in accordance with the listing, the manufacturer's installation instructions, and ASHRAE 15.
- 7. Self-contained equipment using groups A3 and B3 refrigerants that are listed to UL 60335-2-40 and installed in accordance with the listing, the manufacturer's installation instructions, and ASHRAE 15.

1106.3 is amended to read:

Where any flammable refrigerants of Groups A2, A3, B2 and B3 are used, the machinery room shall conform to the Class I, Division 2, hazardous location classification requirements of NFPA 70.

1106.4 is amended to read:

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Machinery rooms containing any Group A2L and B2L and containing no refrigerants of Group A2, B2, A3, and, B3 shall comply with Sections 1106.4.1 through 1106.4.3.

1107.4 is amended to read:

Refrigerant pipe shall conform to one or more of the standards listed in Table 1107.4. For refrigeration systems used in residential occupancies only serving a single dwelling unit or sleeping unit, refrigerant piping and tubing shall be limited to aluminum, copper, and copper alloy. The exterior of the pipe shall be protected from corrosion and degradation.

1107.5 is amended to read:

Refrigerant pipe fittings shall be approved for installation with the piping materials to be installed, and shall conform to one of more of the standards listed in Table 1107.5 or shall be listed and labeled as complying with UL 207. For refrigeration systems used in residential occupancies serving only a single dwelling unit or sleeping unit, refrigerant piping and tubing shall be limited to aluminum, copper, and copper alloys, stainless steel, and steel.

1109.2.5 Exception 2 is amended to read:The following Subsections shall be added to Subsection 1210.1.1:

Piping in a direct refrigeration system where the refrigerant quantity does not exceed the limits of Table 1103.1 for the smallest occupied space through which the piping passes.

1109.2.7 an exception is added to read:

Exception: For refrigeration systems used in residential occupancies serving only a single dwelling unit or sleeping unit, pipe identification shall not be required.

1109.3.2 add the following sentence:

For refrigeration systems used in residential occupancies serving only a single dwelling unit or sleeping unit, shaft ventilation shall not be required where the pipe or tube is continuous without fittings in the shaft.

1210.1.1 is added to read:

~~1210.1.1.~~ Ground Water Source heat pump systems. Open loop heat pump systems which use/waste fresh ground water as a heat transfer medium are prohibited. Closed loop systems are permitted when allowed and registered by the County and when in compliance with the City of Aurora Code of Ordinances.

Chapter 15 add ASHRAE 15.2-2022

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