# AMENDMENTS TO THE 2024 INTERNATIONAL MECHANICAL CODE

## 4-6-2: AMENDMENTS TO THE 2024 INTERNATIONAL MECHANICAL CODE

The following sections of the 2024 International Mechanical Code, adopted by reference as set forth in Section 4-6-1, are amended as follows:

## CHAPTER 1 ADMINISTRATION

**101.1 Title.** These regulations shall be known as the Mesa Mechanical Code, hereinafter referred to as "this code."

A new **Section 101.1.1** is added as follows:

**101.1.1 International Code References.** Within the technical codes and the referenced codes and standards therein, specific references to the following International Codes shall be deemed and interpreted to mean the specific City of Mesa Codes as listed herein:

1. International Building Code (IBC) is redefined as Mesa Building Code (MBC)
2. International Fire Code (IFC) is redefined as Mesa Fire Code (MFC)
3. International Residential Code (IRC) is redefined as Mesa Residential Code (MRC)
4. International Mechanical Code (IMC) is redefined as Mesa Mechanical Code (MMC)
5. International Fuel Gas Code (IFGC) is redefined as Mesa Fuel Gas Code (MFGC)
6. International Existing Building Code (IEBC) is redefined as Mesa Existing Building Code (MEBC)
7. International Plumbing Code (IPC) is redefined as Mesa Plumbing Code (MPC)
8. International Swimming Pool and Spa Code (ISPSC) is redefined as Mesa Swimming Pool and Spa Code (MSPSC)
9. International Energy Conservation Code (IECC) is redefined as Mesa Energy Conservation Code (MECC).

**Sections 101.4 through 109.3** are deleted in their entirety. Any reference to Sections 101.4 through 109.3 shall comply with the Mesa Administrative Code (Mesa City Code, Title 4, Chapter 1).

**Sections 111 through 115.4** are deleted in their entirety. Any reference to Sections 111 through 115.4 shall comply with the Mesa Administrative Code (Mesa City Code, Title 4, Chapter 1).

## CHAPTER 4 VENTILATION

A new **Section 408** is added as follows:
**408 Marijuana Related Occupancies**

**408.1 General.** Any building used to cultivate, produce, or infuse marijuana shall be designed such that there shall be no emission of dust, fumes, vapors, or odors into the environment from the premise. A ventilation system shall be designed to prevent the distribution of odors to other occupied parts of the building or adjacent properties. Design of the odor control system shall be based on accepted engineering practices. All equipment and filter media shall be listed and labeled for the application. Exhaust systems used in odor control systems shall meet the requirements of Section 501.

**408.1.1 Exhaust Outlets.** The termination point for exhaust outlets shall be in accordance with Section 501.3. Exhaust from cultivation and production facilities shall be in accordance with Section 501.3.1(2).

## CHAPTER 5 EXHAUST SYTEMS

To **Section 509.2 Where Required**, a new **exception 2** is added as follows:

**Exceptions:**

2. Type I hoods serving an individual electric or gas conveyor pizza oven unit or stack of units, unless the oven manufacturer requires a fire suppression system.

## CHAPTER 6 DUCT AND TRANSFER OPENINGS

**607.2 Installation.** Fire dampers, smoke dampers, combination fire/smoke dampers and ceiling radiation dampers located within air distribution and smoke control systems shall be installed in accordance with the manufacturer's instructions, the dampers' listing and Sections 607.2.1 through 607.2.3. Dampers shall be tested by an approved testing agency or a qualified third-party special inspector. The special Inspector/testing agency shall be an independent third-party individual or firm and shall not be the installing contractor. Special inspections shall be as specified in Chapter 17 of the Mesa Building Code.

## CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

A new **Section 902.8 Water Conservation** is added as follows:
**928.2 Water Conservation.** Evaporative cooling systems shall be provided with a recirculating water system. Any bleed off rate used by the system shall be limited to that recommended by the manufacturer. Once-through evaporative cooling systems using potable water shall not be permitted.

A new **Section 932 Fireplace Restrictions** is added as follows.
**932 Fireplace Restrictions.**

**932.1 Definitions.** For purposes of this section, the following words and terms shall have the meaning ascribed thereto:

**Solid fuel:** Includes but is not limited to, wood, coal, or other nongaseous or nonliquid fuels, including those fuels listed as "inappropriate fuel" as defined by the Residential Woodburning Restriction Ordinance of Maricopa County where not associated with the Mesa Residential Code.

**Wood stove:** A solid-fuel-burning heating appliance including a pellet stove, which is either freestanding or designed to be inserted into a fireplace.

A new **Section 932.2 General** is added as follows:
**932.2 General.** On or after December 31, 1998, no person, firm, or corporation shall construct or install a fireplace or a woodstove, and the city shall not approve or issue a permit to construct or install a fireplace or a woodstove, unless the fireplace or woodstove complies with (1) of the following:

1. A fireplace which has permanently installed a gas or electric log insert;

2. A fireplace, woodstove, or other solid-fuel-burning appliance which has been certified by the United States Environmental Protection Agency as conforming to 40 Code of Federal Regulations part 60, subpart AAA;

3. A fireplace, woodstove, or other solid-fuel-burning appliance that has been tested and listed by a nationally recognized testing agency to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, subpart AAA; or

4. A fireplace, woodstove, or other solid-fuel-burning appliance that has been determined by the Maricopa County Air Pollution Control Officer to meet performance standards equivalent to those adopted by 40 Code of Federal Regulations part 60, subpart AAA; or

5. A fireplace that has a permanently installed woodstove insert that complies with paragraphs 2, 3, or 4 above.

**Exceptions:**
The following are not regulated and are not prohibited by this section:

1. Furnaces, boilers, incinerators, kilns, and other similar space-heating or industrial process equipment;

2. Cook stoves, barbecue grills, and similar appliances designed primarily for cooking; and

3. Fire pits, barbecue grills, and other outdoor fireplaces.

A new **Section 932.2.1 Flammable Materials** is added as follows:
**932.2.1 Flammable Materials.** Fireplaces constructed or installed on or after December 31, 1998, that contain a gas or electric log insert or a woodstove insert, shall not be altered to directly burn wood or any other solid fuel. On or after December 31, 1998, no person, firm, or corporation shall

alter a fireplace, woodstove, or other solid fuel-burning appliance in any manner that would void its certification or operational compliance with the provisions of this section.

A new **Section 932.2.2 Fireplace Permitting** is added as follows:
**932.2.2 Fireplace Permitting.** Fireplaces constructed or installed on or after December 31, 1998, shall not be altered without first obtaining a permit from the building safety director to ensure compliance with this section.

## CHAPTER 11 REFIGERATION

**1109.2.5 Refrigerant Pipe Shafts.** Refrigerant piping that penetrates two or more floor/ceiling assemblies shall be enclosed in a fire-resistance-rated shaft enclosure. The fire-resistance-rated shaft enclosure shall comply with Section 713 of the International Building Code.

**Exceptions:**
1. Refrigeration systems using R-718 refrigerant (water).

2. 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.

3. Piping located on the exterior of the building where vented to the outdoors.

**1109.3.2 Shaft ventilation.** Required refrigerant pipe shafts with systems using Group A2L or B2L refrigerant shall be naturally or mechanically ventilated. Refrigerant pipe shafts with one or more systems using any Group A2, A3, B2 or B3 refrigerant shall be continuously mechanically ventilated and shall include a refrigerant detector. The shaft ventilation exhaust outlet shall comply with Section 501.3.1. Naturally ventilated shafts shall have a pipe, duct or conduit not less than 4 inches (102 mm) in diameter that connects to the lowest point of the shaft and extends to the outdoors. The pipe, duct or conduit shall be level or pitched downward to the outdoors. Mechanically ventilated shafts shall have a minimum airflow velocity in accordance with Table 1109.3.2. The mechanical ventilation shall be continuously operated or activated by a refrigerant detector. Systems utilizing a refrigerant detector shall activate the mechanical ventilation at a maximum refrigerant concentration of 25 percent of the lower flammable limit of the refrigerant. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The shaft shall not be required to be ventilated for double-wall refrigerant pipe where the interstitial space of the double-wall pipe is vented to the outdoors.

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.

## CHAPTER 15 REFERENCED STANDARDS

**ASHRAE** (American Society of Heating, Refrigerating and Air-Conditioning Engineers):

15 – 24 Safety Standard for Refrigeration Systems

34 – 24 Designation and Safety Classification of Refrigerants

**NFPA** (National Fire Protection Association):

72 – 25 National Fire Alarm and Signaling Code

211 – 24 Standards for Chimneys, Fireplaces, Vents and Solid Fuel-Burning Appliances