CHAPTER 6

MESA MECHANICAL CODE

4-6-1: INTERNATIONAL MECHANICAL CODE ADOPTED (4247,4639,5055)

4-6-2: PENALTY CLAUSE (4247,4639)

4-6-1: INTERNATIONAL MECHANICAL CODE ADOPTED: (4247,4639)

That certain document known as the International Mechanical Code, which has been published as a Code in book form by the International Code Council and entitled International Mechanical Code, 2006 Edition, together with the following appendix, thereto: (4247,4639)

Appendix A - COMBUSTION AIR OPENINGS and CHIMNEY CONNECTOR PASS-THROUGHS

are hereby referred to, adopted, and made a part hereof as if fully set forth in this Section, with the following changes in and amendments to said Code: (4247)

(A) Section 101.1 is amended to read as follows: (4247)

101.1 Title. These regulations shall be known as the "Mesa Mechanical Code," may be cited as such, and will be referred to herein as "this Code." For administration of this Code, refer to Title 4, Chapter 1, Mesa Administrative Code. (4247)

(B) Sections 101.2 through 109.7 inclusive are deleted in their entirety. (4247)

(C) Section 202. The definition of "unusually tight construction" is amended to read as follows: (4247)

UNUSUALLY TIGHT CONSTRUCTION: Construction meeting the following requirements: (4247)

1. Walls exposed to the outside atmosphere having a continuous water vapor retarder with a rating of 1 perm (57 ng/s · m2 · Pa) or less with openings gasketed or sealed; (4247)

2. Openable windows and doors meeting the air leakage requirements of the Mesa Energy Code, Section 402.4.2; and (4247,5055)

3. Caulking or sealants are applied to areas, such as joints around window and door frames, between sole plates and floors, between wall-ceiling joints, between wall panels, at penetrations for plumbing, electrical, and gas lines, and at other openings. (4247)

(D) Section 301.2 Energy Utilization is hereby adopted in its entirety. (4247,4639,5055)
(E) Section 303.3 Prohibited Locations is amended to read as follows: (4247)

303.3 Prohibited Locations. Fuel-fired appliances shall not be located in, or obtain combustion air from, any of the following rooms or spaces: (4247)

1. Sleeping rooms. (4247)
2. Bathrooms. (4247)
3. Toilet rooms. (4247)
4. Storage closets. (4247)
5. Surgical rooms. (4247)

EXCEPTION: This Section shall not apply to the following appliances: (4247)

1. Direct-vent appliances that obtain all combustion air directly from the outdoors. (4247)
2. Solid-fuel-fired appliances provided that the room is not a confined space and the building is not of unusually tight construction. (4247)
3. Appliances installed in a dedicated enclosure in which all combustion air is taken directly from the outdoors, in accordance with Section 703. Access to such enclosure shall be through a solid door, weather-stripped in accordance with the exterior door air leakage requirements of the Mesa Energy Code and equipped with a self-closing device. (4247,5055)

(F) Section 312.1 Load Calculations is amended to read as follows: (4247)

312.1 Load Calculations. Heating and cooling system design loads for the purpose of sizing systems, appliances, and equipment shall be determined in accordance with the procedures described in the ASHRAE Handbook of Fundamentals. Heating and cooling loads shall be adjusted to account for load reductions that are achieved when energy recovery systems are utilized in the HVAC system in accordance with the ASHRAE Handbook - HVAC Systems and Equipment. Alternatively, design loads shall be determined by an approved equivalent computation procedure, using the design parameters specified in Chapter 3 of the Mesa Energy Code. (4247,5055)

(G) Section 401.2 Ventilation Required is amended to read as follows: (5055)

Section 401.2 Ventilation Required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with either Section 403 or ASHRAE 62.1-2004. (5005)

(H) Section 403.2.2 Transfer Air is amended to read as follows: (4247,4639,5055)

403.2.2 Transfer Air. Except where recirculation from such spaces is prohibited by Table 403.3, air transferred from occupied spaces is not prohibited from serving as makeup air for required exhaust systems in such spaces as kitchens, baths, toilet rooms, and elevators. The amount of transfer air and exhaust air shall be sufficient to provide the flow rates as specified in Sections 403.3 and 403.3.1. The required outdoor air rates specified in Table 403.3 shall be introduced directly into such spaces or into the occupied spaces from which air is transferred or a combination of both. (4247)
(I) Table 403.3 Required Outdoor Ventilation Air is revised by deleting superscript “h” from smoking lounges in the public spaces portion of the table. (4639,5055)

(J) Section 506.3.10 Grease Duct Enclosures is amended by deleting Exception 3 and inserting the following: (4247,4639,5055)

3. In lieu of the required shaft enclosure construction, where the ducts pass only through an attic space, the fire-resistant assembly may be limited to the installation of the total thickness of fire-resistive material applied on the duct side of the shaft enclosure. (4247,4639)

(K) Section 509.1 Where Required is amended by adding the following exception:

EXCEPTION: 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. (4639,5055)

(L) Section 604.1 General is amended to read as follows: (4247,4639,5055)

604.1 Duct insulation shall conform to the requirements of Sections 604.2 through 604.13 and the Mesa Energy Code. (4247,5055)

(M) Chapter 9 Specific Appliances, Fireplaces, and Solid-Fuel-Burning Equipment is amended by adding a new Section 927 Fireplace Restrictions at the end to read as follows: (4247,4639,5055)

927 Fireplace Restrictions. (4247,4639)

927.1 Definitions. For purposes of this Section, the following words and terms shall have the meaning ascribed thereto: (4247)

FIREPLACE: Means a built-in-place masonry hearth and fire chamber or a factory-built appliance, designed to burn solid fuel or to accommodate gas or electric log insert or similar device, and which is intended for occasional recreational or aesthetic use, not for cooking, heating, or industrial processes. (4247)

SOLID FUEL: Means and includes, but is not limited to, wood, coal, or other nongaseous or nonliquid fuels, including those fuels defined by the Maricopa County Air Pollution Control Officer as "inappropriate fuel" to burn in residential wood-burning devices. (4247)

WOOD STOVE: Means a solid-fuel-burning heating appliance including a pellet stove, which is either freestanding or designed to be inserted into a fireplace. (4247)

927.2 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 one (1) of the following: (4247,4639)

1. A fireplace which has permanently installed gas or electric log insert; (4247)

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; (4247)
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 (4247)

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 (4247)

5. A fireplace that has a permanently installed woodstove insert that complies with paragraphs 2, 3, or 4 above. (4247)

EXCEPTIONS: The following installations are not regulated and are not prohibited by this Section: (4247)

1. Furnaces, boilers, incinerators, kilns, and other similar space-heating or industrial process equipment; (4247)

2. Cook stoves, barbecue grills, and similar appliances designed primarily for cooking; and (4247)

3. Fire pits, barbecue grills, and other outdoor fireplaces. (4247)

Fireplaces constructed or installed on or after December 31, 1998, that contain a gas or electric log inset 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. (4247)

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 insure compliance with this Section. (4247,4639)

(N) Chapter 10, Boilers, Water Heaters, and Pressure Vessels is deleted entirely. (4247,4639,5055)

(O) Section 1204.1 Insulations Characteristics is amended to read as follows: (4247,4639,5055)

1204.1 Insulation Characteristics. Pipe insulation installed in buildings shall conform to the requirements of the Mesa Energy Code, be tested in accordance with ASTME 84 and shall have a maximum flame spread index of 25 and a smoke-developed index not exceeding 450. Insulation installed in an air plenum shall comply with Section 602.2.1. (4247, 5055)

EXCEPTION: The maximum flame spread index and smoke developed index shall not apply to one- (1-) and two- (2-) family dwellings. (4247)

4-6-2: PENALTY CLAUSE: (4247,4639)

Any person, firm, or corporation who shall violate any of the provisions of this Chapter of the Mesa City Code as amended shall be subject to all penalties and provisions of Section 4-1-9. (4247,4639)