



**SOUTHERN NEVADA
AMENDMENTS
TO THE
2012 UNIFORM MECHANICAL CODE**

PREFACE

This document was developed by the Southern Nevada Building Officials' UPC/ UMC Committee and presents recommended amendments to the 2012 Uniform Mechanical Code (UMC) as published by the International Association of Plumbing and Mechanical Officials (IAPMO).

Participation in the 2012 UPC/ UMC Committee was open to all interested parties. However, voting on amendment proposals was limited to one vote each for the seven Southern Nevada municipalities (Clark County, Henderson, Las Vegas, North Las Vegas, Boulder City, Pahrump, and Mesquite), the Clark County School District, and three industry representatives. All UPC/ UMC Committee proceedings were conducted in accordance with Robert's Rules of Order.

The recommended amendments contained herein are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternates have been approved and their use authorized by the Building Official. This document may be copied and used in whole or in part without permission or approval from the organizations listed on the cover page.

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Chapter 1 Administration.

Delete Chapter 1 in its entirety, except for section 101.1 Title and 101.2 Purpose.

Section 304.2 Access to Equipment on Roofs.

Add a new Section 304.2.4

304.2.4 Access to Appliances and Air Moving Systems on Roofs from the exterior.

304.2.4 Appliances and air moving systems located on roofs or other elevated locations may be accessible by permanent roof access ladders, as follows:

- (1) Each ladder shall have side railings which extend at least thirty (30) inches (762 mm) above the roof or parapet wall.
- (2) Each ladder shall be a minimum of fourteen (14) inches (356 mm) in width.
- (3) Each ladder rung shall be spaced at a maximum of fourteen (14) inches (356 mm) on center.
- (4) Each ladder shall have a minimum of a six (6) inch (152 mm) toe space.
- (5) Each ladder shall have intermediate horizontal landings whenever the ladder height exceeds eighteen feet (5486 mm) above finished grade. Landings shall be placed at eighteen foot (5486 mm) intervals, maximum.

Exceptions:

- (1) Permanent exterior ladders providing roof access need not extend closer than eight (8) feet (2438 mm) to the finish grade.
- (2) A portable ladder may be used for access for a Group R Division 3 and 4 and U occupancies.
- (3) Permanent ladders for equipment access need not be provided at parapets or walls less than thirty (30) inches (762mm) in height.

Section 312.2 Condensate Control.

Revise Section 312.2

312.2 Condensate Control. When a cooling coil or cooling unit is located in an attic or furred space where damage may result from condensate overflow an additional watertight pan of corrosion-resistant metal shall be installed beneath the cooling coil or unit top to catch the overflow condensate due to a clogged primary condensate drain or one of the following methods may be used:

- (1) One pan with a standing overflow and a separate secondary drain may be provided in lieu of the secondary drain pan.
- (2) One pan with a standing overflow and a water level detection device in lieu of the secondary drain pan. The water level detection device shall conform to UL 508 and shall shut off the equipment served in the event that the primary drain is blocked. The device shall be installed in the overflow drain line or in the equipment-supplied drain pan, located at a point higher than the primary drain line connection and below the overflow rim of the drain pan.

Exception: Fuel-fired appliances that automatically shut down operation in the event of a stoppage in the condensate drainage system.

The additional pan or the standing overflow shall be provided with a drain pipe, minimum 3/4 inch (19.1 mm) nominal pipe size, discharging at a point that can be readily observed.

This requirement is in addition to the requirements in Sections 312.3 and 312.4.

Section 504.3 Clothes Dryers.

Revise Subsection 504.3.1 by adding a new exception

504.3. Clothes Dryers. Moisture exhaust ducts shall terminate on the outside of the building and shall be equipped with a back-draft damper. Screens shall not be installed at the duct termination. Ducts for exhausting clothes dryers shall not be connected or installed with sheet metal screws or other fasteners which will obstruct the flow. Clothes dryer moisture exhaust ducts shall not be connected to a gas vent connector, gas vent or chimney and shall only serve clothes dryers. Clothes dryer moisture exhaust ducts under positive pressure shall not extend into or through ducts or plenums.

Exception: When moisture exhaust ducts terminate vertically through a roof, backdraft dampers are not required.

Section 504.3.1.2 Length Limitation.

Section 504.3.1.2 is amended by the addition of an exception

504.3.1.2 Length Limitation. Unless otherwise permitted or required by the dryer manufacturer's instructions and approved by the Authority Having Jurisdiction, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of fourteen (14) feet (4,263 mm), including two (2) 90 degree (1.57 rad) elbows. Two (2) feet (610 mm) shall be deducted for each 90 degree (1.57 rad) elbow in excess of two.

Exception: Lengths may be increased when justified by calculations prepared by a Nevada Licensed Mechanical Engineer.

Section 510.7 Interior Installations.

Add a new Subsection 510.7.1.4

510.7.1.4 Unless specifically listed, the structural supports for a duct enclosure shall be outside the enclosure.

Section 511.2 Airflow.

Add a new Subsection 511.2.4 Performance Test

511.2.4 Performance Test. Upon completion and before final approval of the installation of a ventilation system serving commercial food heat-processing equipment, a performance test shall be performed to verify the rate of airflow and proper operation as specified in this chapter or manufacturer's listing. The permittee shall furnish the necessary test equipment and devices required to perform the tests and shall provide the jurisdiction with an accurate, completed, and signed test report. The report shall be on a form supplied by the jurisdiction or on a form containing equivalent information. At the discretion of the building official, the performance test

may be required to be witnessed by the Authority Having Jurisdiction, performed by an approved third party testing agency.

Section 608.1 General.

Revise Section 608.1 by adding a new paragraph following the exceptions:

Upon completion and before final approval of the air-moving system provided with the required smoke detectors, a performance test shall be performed to verify compliance of detector installation to manufacturer's instructions and system compatibility as specified in this chapter. The permittee shall furnish the necessary test equipment and devices required to perform the tests and shall provide the jurisdiction with an accurate, completed, and signed test report. The report shall be on a form supplied by the jurisdiction or on a form containing equivalent information. At the discretion of the building official, the performance test may be required to be witnessed by the Authority Having Jurisdiction, performed by an approved third party testing agency.

Section 802.6.2 Additional Termination Requirements.

Add an exception to 802.6.2.1

Exception: A single-family residence having gas vents twelve (12) inches (300 mm) in size or smaller with listed caps shall be permitted to be terminated in accordance with Figure 802.6.2, provided they are at least four (4) feet (1.2 m) from a vertical wall or similar obstruction.

Section 1001.1 Applicability.

Delete Chapter 10 in its entirety except Section 1001.1 and revise Section 1001.1

1001.1 Applicability. For boilers and water heaters less than 120 gallon capacity, or a BTU input rating less than 200,000, or less than 160 pounds per square inch of pressure, see Chapter 5 of the Uniform Plumbing Code. For all other units, contact the Mechanical Section of the Nevada Division of Occupational Safety and Health, part of the Office of Business and Industrial Relations.

Table 1105.1 Permissible Refrigeration Systems

Revise Table 1105.1, as follows:

Table 1105.1

Permissible Refrigeration Systems¹

Occupancy Group ⁴	High - Probability System	Low Probability System	Machinery Room
A-1	Group A1 only	Any	Any
A-2	Group A1 only	Any	Any
A-3	Group A1 only	Any	Any
A-4	Group A1 only	Any	Any
B	Group A1 ² only	Any	Any
E	Group A1 only	Any	Any
F-1	Group A1 ² only	Any	Any
F-2	Any ²	Any	Any
H-1	Any	Any	Any
H-2	Any	Any	Any
H-3	Any	Any	Any
H-4	Group A1 only	Any	Any
H-5	Group A1 only	Any	Any
I-1	Group A1 ³ only	Any	Any
I-2	None	Any	Any
I-3	None	Any	Any
I-4	Group A1 ³ only	Any	Any
M	Group A1 ² only	Any	Any
R-1	Group A1 only	Any	Any
R-2	Group A1 only	Any	Any
R-3	Group A1 only	Any	Any
R-4	Group A1 only	Any	Any
S-1	Group A1 ² only	Any	Any
S-2	Any ²	Any	Any
U	Any	Any	Any

Notes:

¹ See Section 1105.0.

² Any refrigerant may be used within a high-probability system when the room of space complies with Section 1105.3.

³ The allowable quantities shown in Table 1102.2 shall be reduced by 50 percent for all institutional occupancies except kitchens, laboratories, and mortuaries.

⁴ Occupancy classifications are defined in the Building Code.

Section 1302.0 General.

Revise Section 1302 by adding a new Subsection 1302.2

1303.2.2 Dry Gas – A gas having a moisture and hydrocarbon dew point below any normal temperature to which the gas piping is exposed. Southern Nevada shall be considered a dry gas condition area unless specified by the local gas purveyor.

Section 1311.1.6 Piping Underground Beneath Buildings.

Delete Subsection 1311.1.6 and replace in its entirety

1311.1.6 Piping Underground Beneath Buildings. No gas piping shall be installed in or on the ground under any building or structure unless installed in gastight conduit, and all exposed gas piping shall be kept at least six (6) inches (152 mm) above grade or structure. The term “building or structure” shall include structures such as porches and steps, whether covered or uncovered, breezeways, roofed porte-cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances. All gas piping under a slab shall be capable of being removed and replaced.

The conduit shall be of material approved for installation underground beneath buildings and not less than Schedule 40 pipe. The interior diameter of the conduit shall be not less than one-half (1/2) inch (15 mm) larger than the outside diameter of the gas piping.

The conduit shall extend to a point at least (12) inches (305 mm) beyond any area where it is required to be installed or to the outside wall of a building, and the outer ends shall not be sealed. Where the conduit terminates within a building, it shall be readily accessible and the space between the conduit and the gas piping shall be sealed to prevent leakage of gas into the building.

Exception: Products listed for such use.

Section 1316.9 Test Pressure.

Delete Subsection 1316.9 and replace in its entirety as follows:

1316.9 Test Pressure. This inspection shall be made after all piping authorized by the permit has been installed and after all portions thereof which are to be covered or concealed are so concealed and before any fixtures, appliance, or shutoff valve has been attached thereto. Gas valves may be installed when permitted by the manufacturer to withstand test pressures. This inspection shall include an air, CO₂ or nitrogen pressure test, at which time the gas piping shall stand a pressure of not less than ten (10) pounds per square inch (68.9 kPa) gauge pressure, or at the discretion of the Authority Having Jurisdiction, the piping and valves may be tested at a pressure of at least six (6) inches (152 mm) of mercury, measured with a manometer or slope gauge. Test pressures shall be held for a length of time satisfactory to the Authority Having Jurisdiction, but in no case for less than fifteen (15) minutes, with no perceptible drop in pressure. For welded piping, and for piping carrying gas at pressures in excess of fourteen (14) inches (356 mm) water column pressure, the test pressure shall not be less than sixty (60)

pounds per square inch (413.4 kPa) and shall be continued for a length of time satisfactory to the Authority Having Jurisdiction, but in no case for less than thirty (30) minutes. These tests shall be made using air, CO₂, or nitrogen pressure only and shall be made in the presence of the Administrative Authority. All necessary apparatus for conducting tests shall be furnished by the permit holder. Test gauges used in conducting tests shall comply with Section 1303.3.3.