

SOUTHERN NEVADA PROPOSED AMENDMENTS

TO THE

2012 UNIFORM MECHANICAL CODE

PLUMBING/MECHANICAL CODE COMMITTEE SEPTEMBER 07, 2012

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.

Tracking List of Proposed Amendments

No.	Code Section	Proposed by	Status/Notes
001	Chapter 1-	P/M Code Committee	passed
	Admin.		
002	202	P/M Code Committee	passed
003	303	P/M Code Committee	passed
003a	312.2	P/M Code Committee	passed
003b	304.2	P/M Code Committee	passed
004	504.3	P/M Code Committee	passed
005	504.3.1.2	P/M Code Committee	passed
006	510.7	P/M Code Committee	passed
007	511.2	P/M Code Committee	passed
008	608.0	P/M Code Committee	passed
009	802.6.2	P/M Code Committee	
011	1001.1	P/M Code Committee	passed
013b	1302	P/M Code Committee	passed
014	1311.0	P/M Code Committee	passed
018	1316.0	Robert Flores	passed
019	205	Jordan Krahenbuhl	passed

AMENDMENT NO.: 001

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC Chapter 1 - Administration

PROPONENT: P/M Code Committee

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

JUSTIFICATION: To avoid conflicts with local jurisdiction administrative code requirements.

Code correlation.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North rump Las			Indust	ry
City	County		Vegas			Vegas	School District	1	2	3
Υ	Y	Y	Y	А	Y	Y	Α	Y	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 002

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 205 – Definitions - C

PROPONENT: P/M Code Committee

PROPOSAL: Add a new definition to Section 205.0 to be placed in alphabetical order.

REVISE AS FOLLOWS:

<u>Combustible Construction</u> - Combustible construction shall mean work within any building or structure classified as Type III, Type IV, Type V as defined in the Building Code. Plastic piping is not permitted in Type I and Type II buildings.

<u>JUSTIFICATION:</u> Provides clarification and consistency of code interpretation as to when plastic piping is permitted to be used in a building or structure.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Henderson Las Mesquite Pahrump Las School		Industry					
City	County		Vegas			Vegas	District	1	2	3
	Υ	Y	Y	А	Y	Y	А	Y	Y	Y

RESULT: motion passes

STEERING COMMITTEE RECOMMENDATIONS: Does not concur.

The definition of Combustible Construction should not contain the second sentence stating a requirement for plastic pipe. The requirement: "Plastic pipe is not permitted in Type I and Type II buildings" is a provision and would be more appropriately inserted in Chapter 3 "General Requirements", perhaps somewhere in 303.0 Installation.

AMENDMENT NO.: 003

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 303 Installation

PROPONENT: P/M Code Committee

PROPOSAL: Add a new section 303.2.1 to read as follows:

REVISE AS FOLLOWS:

303.2.1 Plastic Pipe Use. Plastic materials listed for use in mechanical equipment are acceptable as an alternate to other approved materials for use in installations in combustible construction only.

EXCEPTIONS:

- (1) Approved plastic control tubing of mechanical equipment may be used in buildings or structures of all construction classifications when installed in accordance with their listings.
- (2) When restricted by other sections of this code.

JUSTIFICATION: Provide a clear definition of when plastic piping may be used in a building

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulde		Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County		Vegas			Vegas	District	1	2	3
Y	Y	Υ	Y	А	Υ	Y	А	Y	Y	Y

RESULT: motion passes

AMENDMENT NO.: 003a

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 312.2

PROPONENT: P/M Code Committee

PROPOSAL: Revise Section 312.2

REVISE AS FOLLOWS:

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.
- 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.

JUSTIFICATION: To allow for an alternative accepted condensate disposal method when local conditions prevent installation of a secondary drain pan or secondary gravity drain line.

Consistency in regional interpretation.

COST IMPACT: Decrease

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School	Industry			
City	County		Vegas			Vegas	District	1	2	3	
Υ	Υ	Υ	Y	А	Y	Y	Α	Y	Y	Υ	

RESULT: motion passes

AMENDMENT NO.: _	003b
COMMITTEE:	Plumbing and Mechanical
CODE SECTION:	UMC 304.2 Access to Equipment on Roofs
PROPONENT:	P/M Code Committee

PROPOSAL: Add a new Section 304.2.4

REVISE AS FOLLOWS:

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

<u>304.2.4</u> Appliances and air moving systems located on roofs or other elevated locations shall 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) <u>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.</u>

Exceptions:

- (1) <u>Permanent exterior ladders providing roof access need not extend closer than eight</u> (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) <u>Permanent ladders for equipment access need not be provided at parapets or walls</u> less than thirty (30) inches (762mm) in height.

JUSTIFICATION: To clarify roof access requirements and to provide consistency of code interpretation and enforcement.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Mesquite Pahrump		CC School		Indust	ry
City	County		Vegas			Las Vegas	District	1	2	3
Υ	Y	Y	Y	А	Y	Y	Α	Y	Y	Y

RESULT: motion passes

AMENDMENT NO.: 004

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 504.3. – Clothes Dryers

PROPONENT: P/M Code Committee

PROPOSAL: Revise Subsection 504.3.1 by adding a new exception

REVISE AS FOLLOWS:

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.

<u>JUSTIFICATION:</u> This amendment is necessary to prevent a possible fire hazard as a result of the unique design of moisture exhaust ducts which terminate vertically through roofs. Typical moisture exhaust ducts designs run horizontally and backdraft dampers are required for horizontal installations.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County	110114010011	Vegas	Mooquito	. amamp	Vegas	District	1	2	3
Υ	Y	Y	Y	А	Y	Y	Α	Y	Y	Υ

RESULT: Motion passes

AMENDMENT NO.: 005

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 504.3.1.2 – Length Limitation

PROPONENT: P/M Code Committee

PROPOSAL: Section 504.3.1.2 is amended by the addition of an exception

REVISE AS FOLLOWS:

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.

JUSTIFICATION: To provide requirements for engineered systems. Unique design.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County		Vegas	eeque		Vegas	District	1	2	3
Y	Y	Y	Y	А	Y	Y	А	Y	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 006

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 510.7 Interior Installations

PROPONENT: P/M Code Committee

PROPOSAL: Add a new Subsection 510.7.1.4

REVISE AS FOLLOWS:

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

JUSTIFICATION: To avoid collapse of the duct enclosure during a fire. Regional interpretation.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County		Vegas			Vegas	District	1	2	3
Υ	Y	Y	Y	А	Y	Y	Α	Y	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 007

COMMITTEE: ____ Plumbing and Mechanical

CODE SECTION: UMC 511.2. Airflow

PROPONENT: P/M Code Committee

PROPOSAL: Add a new Subsection 511.2.4 Performance Test

REVISE AS FOLLOWS:

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.

<u>JUSTIFICATION:</u> To provide for consistency in regional interpretation and application of the code requirements for third party testing of Type I Hoods.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County		Vegas			Vegas	District	1	2	3
Υ	Υ	Y	Y	А	Y	Y	Α	Y	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 008

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 608.0 – Automatic Shutoffs

PROPONENT: P/M Code Committee

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

REVISE AS FOLLOWS:

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.

<u>JUSTIFICATION:</u> To provide for consistency in regional interpretation and application of the code requirements for third party testing of duct smoke detectors.

COST IMPACT: Increase

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Mesquite	Pahrump	North Las	CC School		Indust	ry
City	County		Vegas			Vegas	District	1	2	3
Υ	Υ	Y	Y	Y	А	Y	Α	Y	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 009

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 802.6.2 – Gas Vents

PROPONENT: P/M Code Committee

PROPOSAL: Add an exception to 802.6.2.1

REVISE AS FOLLOWS:

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.

JUSTIFICATION: To be consistent with structural and climatic conditions in Southern Nevada

COST IMPACT: Decrease

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	n Las Mesquite Pahrump Las	North Las	CC School	Industry				
City	County					Vegas	District	1	2	3
Υ	Υ	Y	Y	А	Y	Y	А	Υ	Y	Υ

RESULT: motion passes

AMENDMENT NO.: 011

COMMITTEE: _____Plumbing and Mechanical

CODE SECTION: UMC 1001.1 - Applicability (Steam and Hot Water Boilers)

PROPONENT: P/M Code Committee

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

REVISE AS FOLLOWS:

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.

JUSTIFICATION: To correlate and avoid conflict with NRS 455 requirements.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	mp North Las Vegas	as School	Industry			
City				mooquito				1	2	3	
Υ	Y	Y	Y	А	Y	Y	Α	Y	Y	Υ	

RESULT: motion passes

STEERING COMMITTEE RECOMMENDATIONS: Concurs with the content.

However; the existing provisions of Section 1001.1 should be shown with strike thru; or, **PROPOSAL** should mention a new Section 1001.1.

AMENDMENT NO.: 013b

COMMITTEE: Plumbing and Mechanical

CODE SECTION: UMC 1302 General

PROPONENT: Plumbing and Mechanical Committee

PROPOSAL: Revise Section 1302 by adding a new Subsection 1302.2

REVISE AS FOLLOWS:

<u>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.</u> Southern Nevada shall be considered a dry gas condition area unless specified by the local gas purveyor.

JUSTIFICATION: To provide clarification of code intent and consistent code interpretation as to when gas drips lines are required.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

	Boulder City	Clark County	Henderson	Las Vegas	Mesquite	Pahrump	North Las	CC School	Industry			
					mooquito		Vegas	District	1	2	3	
	Y	Υ	Y	Y	А	Y	Y	А	Υ	Υ	Υ	

RESULT: motion passes

STEERING COMMITTEE RECOMMENDATIONS: Concurs

Page 18 of 22 Rev.04.21.09

AMENDMENT NO.: 014

COMMITTEE: Plumbing and Mechanical

CODE SECTION: <u>UMC 1311.0 Gas Piping Inspection</u>

PROPONENT: P/M Code Committee

PROPOSAL: Delete Subsection 1311.1.6 and replace in its entirety

REVISE AS FOLLOWS:

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 portecocheres, 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.

<u>JUSTIFICATION:</u> Required to provide consistency in regional interpretation and application of the codes.

COST IMPACT: None

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las Vegas	Mesquite	Pahrump	North Las	CC School District	Industry			
City	County			ooquo		Vegas		1	2	3	
Υ	Y	Y	Y	А	Y	Y	А	Υ	Υ	Υ	

RESULT: motion passes

STEERING COMMITTEE RECOMMENDATIONS: Concurs

Page 19 of 22 Rev.04.21.09

AMENDMENT NO.: 018

COMMITTEE: Plumbing and Mechanical

CODE SECTION: 1316 Pressure Testing and Inspection

PROPONENT: Robert Flores

PROPOSAL: Delete Subsection 1316.9 and replace in its entirety as follows:

REVISE 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.

JUSTIFICATION: Required to provide consistency in regional interpretation and application of the codes and to clarify code intent.

COST IMPACT: None

Page 20 of 22 Rev.04.21.09

COMMITTEE ACTION: Motion to accept

Boulder	Clark	Henderson	Las	Las Mesquite Pahrump	North Las	CC School	Industry			
City	County		Vegas			Vegas	District	1	2	3
Υ	Υ	Y	Y	А	Y	Y	Α	Y	Y	Υ

RESULT: motion passes

AMENDMENT # : <u>019</u>	
COMMITTEE: Plumbing and Med	chanical
CODE SECTION: 205 UMC	Combustible Construction
PROPONENT: Jordan Krahenbu	hl
PROPOSAL: Add an Exception Nevada Amendments	to Section 205 Combustible Construction of the Southern
REVISE AS FOLLOWS:	
Exception: Plastic piping may pe Type I and Type II Buildings.	enetrate through the slab on grade a maximum of 8 inches in
JUSTIFICATION: Many failures conditions in Southern Nevada.	have occurred with metallic piping because of climatic
COST IMPACT: None	

Boulder	Clark County	Henderson	Las Vegas	Mesquite	te Pahrump	squite Pahrump Las School		CC School	Industry		
City						Vegas	District	1	2	3	
Υ	Υ	Υ	Υ	Α	Υ	Α	Α	Y	Υ	Υ	

RESULT: Motion Passes.

COMMITTEE ACTION: Motion to Accept.

STEERING COMMITTEE RECOMMENDATIONS: Does not concur.

An exception to noncombustible construction should not be under combustible construction definition. Also see Steering Committee comments to amendment #002.

Page 22 of 22 Rev.04.21.09