

TITLE 14 HOUSING AND CONSTRUCTION
CHAPTER 9 MECHANICAL CODES
PART 2 2006 NEW MEXICO MECHANICAL CODE

14.9.2.1 ISSUING AGENCY: Construction Industries Division (CID) of the Regulation and Licensing Department.

[14.9.2.1 NMAC - Rp, 14.9.2.1 NMAC, 1-1-08]

14.9.2.2 SCOPE: This rule applies to all contracting work performed in New Mexico on or after January 1, 2008, that is subject to the jurisdiction of CID, unless performed pursuant to a permit for which an application was received by CID before that date.

[14.9.2.2 NMAC - Rp, 14.9.2.2 NMAC, 1-1-08]

14.9.2.3 STATUTORY AUTHORITY: NMSA 1978 Sections 60-13-9 and 60-13-44.

[14.9.2.3 NMAC - Rp, 14.9.2.3 NMAC, 1-1-08]

14.9.2.4 DURATION: Permanent.

[14.9.2.4 NMAC - Rp, 14.9.2.4 NMAC, 1-1-08]

14.9.2.5 EFFECTIVE DATE: January 1, 2008, unless a later date is cited at the end of a section.

[14.9.2.5 NMAC - Rp, 14.9.2.5 NMAC, 1-1-08]

14.9.2.6 OBJECTIVE: The purpose of this rule is to establish minimum standards for the installation, repair, and replacement of mechanical systems including equipment, appliances, fixtures, fittings and/or appurtenances including ventilating, heating, cooling, air conditioning, and refrigeration systems, incinerators, and other energy related systems in New Mexico.

[14.9.2.6 NMAC - Rp, 14.9.2.6 NMAC, 1-1-08]

14.9.2.7 DEFINITIONS:

[See 14.5.1 NMAC, General Provisions and chapter 2 of the 2003 uniform plumbing code (UPC) as amended in 14.9.2.10 NMAC.]

[14.9.2.7 NMAC - Rp, 14.9.2.7 NMAC, 1-1-08]

14.9.2.8 ADOPTION OF THE 2006 UNIFORM MECHANICAL CODE:

A. This rule adopts by reference the 2006 uniform mechanical code, as amended by this rule.

B. In this rule, each provision is numbered to correspond with the numbering of the 2006 uniform mechanical code.

C. This rule is to be applied in conjunction with 14.7.6 NMAC, the 2006 New Mexico energy conservation code.

[14.9.2.8 NMAC - Rp, 14.9.2.8 NMAC, 1-1-08, A, 2-24-08]

14.9.2.9 CHAPTER 1 ADMINISTRATION.

A. Part I - General.

(1) **101.0 Title.** Delete this section of the UMC and substitute: This code shall be known as the 2003 New Mexico mechanical code (NMMC).

(2) **102.0 Purpose.** Delete this section of the UMC and see 14.9.2.6 NMAC.

(3) **103.0 Scope.** Delete this section of the UMC and see 14.9.2.2 NMAC.

(4) **104.0 Application to Existing Mechanical Systems.** See this section of the UMC.

(5) **105.0 Alternate Materials and Methods of Construction.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(6) **106.0 Modifications.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(7) **107.0 Tests.** See this section of the UMC.

B. Part II - Organization and Enforcement.

(1) **108.0 Powers and Duties of the Authority Having Jurisdiction.**

(a) **108.1 General.** Delete this section of the UMC and see CILA.

(b) **108.2 Deputies.** Delete this section of the UMC and see CILA Sections 60-13-8 and 60-13-41 and NMSA 1978 Section 9-16-7.

(c) **108.3 Right of Entry.** Delete this section of the UMC and see CILA Section 60-13-42.

(d) **108.4 Stop Orders.** Delete this section of the UMC and see 14.5.2 NMAC, Permits.

(e) **108.5 Authority to Disconnect Utilities in Emergencies.** Delete this section of the UMC and see CILA Section 60-13-42.

(f) **108.6 Authority to Condemn Equipment.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(g) **108.7 Connection After Order to Disconnect.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(h) **108.8 Liability.** Delete this section of the UMC and see CILA Section 60-13-26.

(i) **108.9 Cooperation of Other Officials and Officers.** Delete this section of the UMC.

(2) **109.0 Unsafe Equipment.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(3) **110.0 Board of Appeals.** Delete this section of the UMC and see 14.5.1 NMAC, General Provisions.

(4) **111.0 Violations.** Delete this section of the UMC and see CILA Section 60-13-1 et seq., and 14.5.3 NMAC, Inspections.

C. Part III - Permits and Inspections.

(1) **112.0 Permits.** See 14.5.2 NMAC, Permits.

(2) **113.0 Application for Permit.** Delete this section of the UMC and see 14.5.2 NMAC, Permits.

(3) **114.0 Permit Issuance.** Delete this section of the UMC and see 14.5.2 NMAC, Permits.

(4) **115.0 Fees.** Delete this section of the UMC and see 14.5.5 NMAC, Fees.

(5) **116.0 Inspections.** Delete this section of the UMC and see 14.5.3 NMAC, Inspections.

(6) **117.0 Connection approval.** Delete this section of the UMC and see 14.5.2 NMAC, Permits.

(7) **Table 1.1 Mechanical Permit Fees.** Delete this table from the UMC and see 14.5.5 NMAC, Fees.

D. 116.6 Reinspection. Delete this section of the UMC and see 14.5.5.14 (G) NMAC. [14.9.2.9 NMAC - Rp, 14.9.2.9, NMAC, 1-1-08]

14.9.2.10 CHAPTER 2 DEFINITIONS: See this chapter of the UMC except as provided below.

A. 203.0 Authority having jurisdiction. Delete the text of this definition and substitute: The authority having jurisdiction is the construction industries division (CID) and the bureau chief of the mechanical and plumbing bureau of CID.

B. 214.0 Listed and listing. See this definition in the UPC and add the following provision at the end of the definition: A manufacturer may select the independent certification organization of its choice to certify its products, provided that the certification organization has been accredited by the American national standards institute (ANSI), or another certification organization that CID has approved in writing.

[14.9.2.10 NMAC - Rp, 14.9.2.10 NMAC, 1-1-08]

14.9.2.11 CHAPTER 3 GENERAL REQUIREMENTS: See this chapter of the UMC except as provided below.

A. 305.1 Accessibility for service. Delete the text of this section, and substitute: All gas utilization equipment shall be located with respect to building construction and other equipment so as to permit access to the gas utilization equipment. Sufficient clearance shall be maintained to permit cleaning of heating surfaces; the replacement of filters, blowers, motors, burners, controls and vent connections; the lubrication of moving parts where necessary; the adjustment and cleaning of burners and pilots; and the proper functioning of explosion vents, if provided. Access openings and passageways to equipment located in attics and under-floor spaces shall be provided so the largest piece of equipment can be removed, but in no case less than 22 inches by 30 inches (599 mm by 762 mm). For attic installation, the passageway and servicing area adjacent to the equipment shall be floored. The distance from the passageway access to the equipment shall not exceed 20 feet (6.096 m). A permanent electric outlet and lighting fixture shall be provided at or near the equipment. The light shall be controlled by a switch located at the required passageway opening. Equipment located in under-floor spaces shall have a clearance of at least 6 inches (152 mm) from the ground. Excavation necessary to install such equipment shall extend to a depth of 6 inches (152 mm) below, and 12 inches (305 mm) on all sides of the equipment, except the control side, which shall have 30 inches (762 mm).

B. 306.0 Automatic control devices. See this section of the UMC and add the following provision: “Programmable thermostats shall be installed in all new residential construction and public building construction. On existing buildings that are renovated, remodeled, or where additions are made, reasonable measures shall be taken for retrofitting all existing non-programmable thermostats.”

C. 312.0 Air filters. 312.1 See this section of the UMC but delete the exception.

D. 313.0 Equipment efficiency. See the UMC and add the following new provisions:

(1) **313.1 Heat pumps.** All heat pumps installed in new construction must have a 13 SEER, or greater, energy efficiency rating.

(2) **313.2 Air conditioners.** All air conditioners installed in new construction must have a 13 SEER, or greater, energy efficiency rating.

[14.9.2.11 NMAC - Rp, 14.9.2.11 NMAC, 1-1-08, A, 2-24-08]

14.9.2.12 CHAPTER 4 VENTILATION AIR SUPPLY: See this chapter of the UMC and add the following material to section 405.0 Evaporative cooling systems: “Barometric relief dampers shall be installed on all new residential evaporative cooling systems to allow conditioned air from occupied spaces to exit the occupied space through a discreet opening in the ceiling, allowing the required air change to pass through the attic space to the outdoors. The authority having jurisdiction shall determine whether relief dampers shall be required on retrofits. Barometric relief dampers shall not be required on flat roof construction. Water saving or water management pumps shall be installed on all new and replaced evaporative coolers.”

[14.9.2.12 NMAC - Rp, 14.9.2.12 NMAC, 1-1-08, A, 2-24-08]

14.9.2.13 CHAPTER 5 EXHAUST SYSTEMS: See this chapter of the UMC except as provided below.

A. 504.3.2.2 Length limitation. See this section of the UMC except delete everything after the words “total combined horizontal and vertical length” and substitute: of 23 feet (7m) with two ninety-degree (90°) elbows and a full 4 inch (102 mm) vent cap opening, or 33 feet (10 m) with one ninety-degree (90°) elbow and a full 4 inch (102 mm) vent cap opening. Ten feet (3.05 m) shall be deducted for each additional ninety-degree (90°) elbow in excess of the number allowed.

B. 507.6 Hoods required. Add this new section: hoods shall be installed at or above all commercial-type deep fat fryers, broilers, fry grills, steam-jacketed kettles, hot-top ranges, ovens, barbecues, rotisseries, dishwashing machines and similar equipment that produce comparable amounts of steam, smoke, grease, or heat in a food-processing establishment. For the purposes of this section, a food-processing establishment includes any building or portion thereof used for the processing of food, but does not include a dwelling unit.

C. 511.3 Replacement air. See this section of the UMC except add the following: windows and doors shall not be used for the purpose of providing replacement air. The exhaust and replacement air systems shall be connected by an electrical interlocking switch.

[14.9.2.13 NMAC - Rp, 14.9.2.13 NMAC, 1-1-08]

14.9.2.14 CHAPTER 6 DUCT SYSTEMS: See this chapter of the UMC except as follows.

A. Section 604.1. Location of ducts. Duct work shall not be installed in exterior walls or exterior to the thermal envelope unless the insulation of the duct work meets or exceeds the insulation requirement applicable to the exterior walls of the building.

B. Section 605.0 Insulation of ducts. See this section of the UMC except as follows.

(1) **Table 6-6 A. Minimum duct insulation R value cooling and heating only supply ducts and return ducts.**

(a) **Heating only ducts** - Delete the entries for envelope criteria table 5-13 to 5-15 and substitute the following:

- (i) exterior: R-8;
- (ii) ventilated Attic: R-6;
- (iii) unvented attic w/ backloaded ceiling: R-6;
- (iv) unvented attic w/ roof insulation: R-6;
- (v) unconditioned space: R-6;
- (vi) indirectly conditioned space and buried: none.

(b) **Cooling only ducts** - Delete the entries for envelope criteria table 5-7, 9, 11, 13, 16 and substitute the following:

(i) exterior: R-8 or the R-factor of insulation in the exterior wall on which the duct is located;

- (ii) ventilated Attic: R-6;
- (iii) unvented attic w/ backloaded ceiling: R-6;
- (iv) unvented attic w/ roof insulation: R-6;
- (v) unconditioned space: R-6;
- (vi) indirectly conditioned space and buried: none.

(2) **Table 6-6 B Minimum duct insulation r value combined heating and cooling ducts.** Delete the entries for envelope criteria table 5-13 and substitute the following:

- (a) exterior: R-6;
- (b) ventilated Attic: R-6;
- (c) unvented attic w/ backloaded ceiling: R-6;
- (d) unvented attic w/ roof insulation: R-6;
- (e) unconditioned space: R-6;
- (f) indirectly conditioned space: none;
- (g) buried: R-3.5.

(3) Delete exception (C).

C. Section 604.2. Metal ducts. See this section of the UMC and add the following to the last sentence of the second paragraph, “and be installed so as to support the weight of the concrete during encasement.”

D. Section 609.0 Automatic shutoffs: (6) Automatic shutoffs are not required on evaporative coolers that derive all of their air from outside the building.

[14.9.2.14 NMAC - Rp, 14.9.2.14 NMAC, 1-1-08, A, 2-24-08]

14.9.2.15 CHAPTER 7 COMBUSTION AIR: See this chapter of the UMC.

[14.9.2.15 NMAC - Rp, 14.9.2.15 NMAC, 1-1-08]

14.9.2.16 CHAPTER 8 CHIMNEYS AND VENTS: See this chapter of the UMC.

[14.9.2.16 NMAC - Rp, 14.9.2.16 NMAC, 1-1-08]

14.9.2.17 CHAPTER 9 INSTALLATION OF SPECIFIC EQUIPMENT: See this chapter of the UMC except as provided below.

A. Section 904. 0 Central heating boilers and furnaces. See this section of the UMC and add the following new section: Section

Section 904.7 Furnace plenums and air ducts. See this section of the UMC and add the following new section: “**Section 904.7 (E) Prohibited sources.** Outside or return air for a heating system shall not be taken from the following locations.

(1) Closer than 10 feet (3048 mm) from an appliance vent outlet, a vent opening of a plumbing drainage system or the discharge outlet of an exhaust fan, unless the outlet is three (3) feet (914 mm) above the outside air inlet.

(2) Where it will pick up objectionable odors, fumes or flammable vapors; or where it is less than ten (10) feet (3048 mm) above the surface of any abutting public way or driveway; or where it is in a horizontal position in a sidewalk, street, alley or driveway.

(3) A hazardous or unsanitary location or a refrigeration machinery room as defined in this code.

(4) From an area, the volume of which is less than twenty five percent (25%) of the entire volume served by such system, unless there is a permanent opening to an area the volume of which is equal to twenty five percent (25%) of the entire volume served. Exception: Such opening when used for a warm air furnace in a dwelling unit may be reduced to no less than fifty percent (50%) of the required area; provided the balance of the required return air is taken from a room or hall having at least three (3) doors leading to other rooms served by the furnace.

(5) From a room or space having any fuel burning appliances therein. Exception: This shall not apply to:

(a) a gravity type or listed vented wall furnace;

(b) a blower type system complying with the following requirements:

(i) where the return air is taken from a room or space having a volume exceeding one (1) cubic foot (0.0028 cubic meters) for each 10 Btu/hr (2.93 w) fuel input rate of all fuel burning appliances therein;

(ii) at least seventy five percent (75%) of the supply air is discharged back into the same room or space; or

(iii) return air inlet shall not be located within ten (10) feet (3048 mm) of any appliance

firebox or draft diverter in the same enclosed room or confined space.

(6) A closet, bathroom toilet room or kitchen.

(7) Return air from one dwelling unit shall not be discharged into another dwelling unit through the heating system.

B. Section 904.10.3 Access to equipment on roofs.

(1) **904.10.3.1** See this section of the UMC.

(2) **904.10.3.2** See this section of the UMC except after the words “in height” add the following: except those designated as R-3 occupancies.

C. 907.2 See this section of the UMC except add the following: Installation of gas logs in solid fuel burning fireplaces. Approved gas logs may be installed in solid fuel burning fireplaces, provided.

(1) The gas log is installed in accordance with the manufacturer’s installation instructions

(2) If the fireplace is equipped with a damper, it shall be permanently blocked open by welding or cutting a hole of sufficient size to prevent spillage of combustion products into the room. On eight (8) inch and smaller flues, the damper shall be removed.

(3) The minimum flue passageway shall not be less than 1 square inch per 2000 Btu/h input.

(4) Gas logs shall be equipped with a pilot and listed safely shutoff valve.

(5) The use of flexible gas connections shall not be permitted within a firebox, unless it is part of the listed gas log assembly.

(6) Factory built fireplaces shall be approved for installation of gas logs and provided with a means of installing the gas piping.

(7) All gas outlets located in a barbecue or fireplace shall be controlled by an approved separating valve located in the same room and outside the hearth, but not less than six (6) feet from such outlets.

D. Section 928.1 Installation. See this section of the UMC except add this new subsection: (F)

Vented wall furnaces designed to be installed in a nominal 4 inch (102 mm) will shall be not less than 6 inches (152 mm) from an inside room corner unless listed for lesser clearances. Vented wall furnaces shall be located so that a door cannot swing within 12 inches (305 mm) of an air inlet or air out let of such furnace measured at right angles to the opening. Doorstops or door closers shall not be installed to obtain this clearance. Except when specifically approved vented wall furnaces shall be installed at least 18 inches (457 mm) below any structural projection. This requirement includes doors and windows which could project over the furnace.

[14.9.2.17 NMAC - Rp, 14.9.2.17 NMAC, 1-1-08]

14.9.2.18 CHAPTER 10 STEAM AND HOT WATER BOILERS: See this chapter of the UMC.

[14.9.2.18 NMAC - Rp, 14.9.2.18 NMAC, 1-1-08]

14.9.2.19 CHAPTER 11 REFRIGERATION: See this chapter of the UMC.

[14.9.2.19 NMAC - Rp, 14.9.2.19 NMAC, 1-1-08]

14.9.2.20 CHAPTER 12 HYDRONICS: See this chapter of the UMC except as provided below.

A. 1201.2.8.3 Pressure test. Except delete the first sentence and substitute: piping shall be tested with a hydrostatic pressure or an air test of not less than 1.5 times operating pressure.

B. 1201.3.6.3 Pressure test. Except delete the first sentence and substitute: piping shall be tested with a hydrostatic pressure or an air test of not less than 1.5 times operating pressure.

C. 1201.4.1.1. PEX tubing. See this section of the UMC except add the following: tubing shall be manufactured with an approved oxygen diffusion barrier.

[14.9.2.20 NMAC - Rp, 14.9.2.20 NMAC, 1-1-08]

14.9.2.21 CHAPTER 13 FUEL PIPING: See this chapter of the UMC except as provided below.

A. 1309.5.2.3 Copper and brass pipe shall not be used. Aluminum alloy pipe shall not be used with gases corrosive to such material.

B. 1311.1.2. Protection against damage. Delete the text of subsection (A) of this section of the UMC, cover requirements, and substitute: Underground piping systems shall be installed with a minimum of 18 inches (460 mm) of cover. Where 18 inches (460 mm) of cover cannot be provided, the pipe shall be installed in conduit or bridged (shielded).

C. 1311.9.3 Emergency shutoff valves. See this section of the UMC except delete the following: the emergency shutoff valves shall be plainly marked as such and their locations posted as required by the authority having jurisdiction.

D. 1312.7 Sediment trap. See this section of the UPC except delete the first sentence and substitute: If a sediment trap, which is not incorporated as a part of the gas utilization equipment, is installed, it shall be installed at the time the equipment is installed and as close to the inlet of the equipment as is practical.

E. 1313.0 Liquefied petroleum gas facilities and piping. Delete this section of the UPC and substitute the following: Liquefied petroleum gas facilities shall comply with 19.15.40 NMSA, liquefied petroleum gas standards, and NMSA 1978 70-5-1 et seq., liquefied and compressed gasses.
[14.9.2.21 NMAC - Rp, 14.9.2.21 NMAC, 1-1-08]

14.9.2.22 CHAPTER 14 PROCESS PIPING: See this chapter of the UMC.
[14.9.2.22 NMAC - Rp, 14.9.2.22 NMAC, 1-1-08]

14.9.2.23 CHAPTER 15 SOLAR SYSTEMS: See this chapter of the UMC.
[14.9.2.23 NMAC - Rp, 14.9.2.23 NMAC, 1-1-08]

14.9.2.24 CHAPTER 16 STATIONARY FUEL CELL POWER PLANTS: See this chapter of the UMC.
[14.9.2.24 NMAC - Rp, 14.9.2.24 NMAC, 1-1-08]

14.9.2.25 CHAPTER 17 STANDARDS: See this chapter of the UMC.
[14.9.2.25 NMAC - Rp, 14.9.2.25 NMAC, 1-1-08]

14.9.2.26 APPENDICIES: See this section of the UMC.
[14.9.2.26 NMAC - Rp, 14.9.2.26 NMAC, 1-1-08]

HISTORY OF 14.9.2 NMAC:

Pre-NMAC History: The material in this part was derived from that previously filed with state records center and archives under:

CIC MB 68-2, 1964 New Mexico Plumbing Code, filed 1/23/68.
CIC MB 70-8, 1970 Plumbing Code of New Mexico, filed 4/29/70.
CIC MB 71-4, 1970 Plumbing Code of New Mexico, filed 6/8/71.
CIC MB 74-9, 1973 Uniform Plumbing Code, filed 11/20/74.
CIC 76-1, 1976 Uniform Plumbing Code, filed 5/4/76.
CIC MB 80-5, 1979 Uniform Plumbing Code, filed 4/24/80.
MB-UPC-82-1, 1982 Uniform Plumbing Code, filed 11/4/82.
MB-UPC-85-1, 1985 Uniform Plumbing Code, filed 10/1/85.
MB-UPC-88-1, 1988 Uniform Plumbing Code, filed 12/15/88.
MB-UPC-91-1, 1991 Uniform Plumbing Code, filed 7/28/92.
CIC MB 68-3, 1966 New Mexico Gas Code, filed 1/23/68.
CIC MB 70-7, 1970 Natural Gas Code of New Mexico, filed 4/29/70.
CIC MB 71-3, 1970 Natural Gas Code of New Mexico, filed 6/8/71.
CIC-74-8, 1973 Uniform Mechanical Code, filed 11/20/74.
CIC 76-4, 1976 Uniform Mechanical Code, filed 11/24/76.
CID MB 80-3, 1979 Uniform Mechanical Code, filed 4/23/80.
MB-UMC-82-1, 1982 Uniform Mechanical Code, filed 11/4/82.
MB-UMC-85-1, 1985 Uniform Mechanical Code, filed 10/1/85.
MB-UMC-88-1, 1988 Uniform Mechanical Code, filed 12/15/88.
MB-UMC-91-1, 1991 Uniform Mechanical Code, filed 7/28/92.
CIC 77-3, 1976 New Mexico Uniform Solar Energy Code, 2/26/77.
CID MB-80-6, 1979 Uniform Solar Energy Code, 4/24/80.
MB-USEC-82-1, 1982 Uniform Solar Energy Code, filed 11/4/82.
MB-USEC-85-1, 1985 Uniform Solar Energy Code, 12/23/85.
MB-USEC-88-1, 1988 Uniform Solar Energy Code, 12/15/88.
MB-USEC-91-1, 1991 Uniform Solar Energy Code, 7/28/92.
CIC-75-1, 1973 Uniform Swimming Pool Code, Section 1.7, 10/31/75.
CIC-76-3, 1976 Uniform Swimming Pool Code, 7/27/76.
CIC MB 80-4, 1979 Uniform Swimming Pool Code, filed 4/23/80.

MB-USPC-82-1, 1982 Uniform Swimming Pool Code, 11/4/82.
MB-USPS and HTC-85-1, 1985 Uniform Swimming Pool, Spa and Hot Tub Code, 12/23/85.
MB-USPS and HTC-88-1; 1988 Uniform Swimming Pool, Spa and Hot Tub Code, 12/15/88.
MB-USPS and HTC-91-1, 1991 Uniform Swimming Pool, Spa and Hot Tub Code, 7/28/92.
CID-MB-NMP&M 91-1, 1991 New Mexico Plumbing and Mechanical Code, 7/7/92.

History of Repealed Material: 14 NMAC 9.2, 1997 New Mexico Plumbing and Mechanical Code (filed 10/30/98), repealed 7/1/04.
14.9.2 NMAC, 2003 New Mexico Mechanical Code (filed 5/27/04), repealed 1/1/08.

Other History:

CID-MB-NMP&M 91-1, 1991 New Mexico Plumbing and Mechanical Code, (filed 7/7/92), replaced by 14 NMAC 9.2, 1997 New Mexico Plumbing and Mechanical Code, effective 12-31-98.
14 NMAC 9.2, 1997 New Mexico Plumbing and Mechanical Code (filed 10-30-98) (that applicable portion) replaced by 14.9.2 NMAC, 2003 New Mexico Mechanical Code, effective 7/1/04.
14.9.2 NMAC, 2003 New Mexico Mechanical Code (filed 5/27/04) replaced by 14.9.2 NMAC, 2006 New Mexico Mechanical Code, effective 1/1/08.