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TITLE 14 HOUSING AND CONSTRUCTION CHAPTER 7 BUILDING CODES GENERAL

PART 6 2018 NEW MEXICO RESIDENTIAL ENERGY CONSERVATION CODE

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

[14.7.6.1 NMAC - Rp, 14.7.6.1 NMAC, 9/25/2020]

**14.7.6.2 SCOPE:** This rule applies to all residential contracting work performed in New Mexico on or after September 25, 2020, 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.

[14.7.6.2 NMAC - Rp, 14.7.6.2 NMAC, 9/25/2020]

**14.7.6.3 STATUTORY AUTHORITY:** Sections 60-13-9 and 60-13-44 NMSA 1978. [14.7.6.3 NMAC - Rp, 14.7.6.3 NMAC, 9/25/2020]

**14.7.6.4 DURATION:** Permanent.

[14.7.6.4 NMAC - Rp, 14.7.6.4 NMAC, 9/25/2020]

**14.7.6.5 EFFECTIVE DATE:** September 25, 2020 unless a later date is cited at the end of a section. [14.7.6.5 NMAC - Rp, 14.7.6.5 NMAC, 9/25/2020]

[From the date of publication of this rule in the New Mexico register, until month 3/2021, permits may be issued under either the previously-adopted rule, or this rule. After month 3/2021, permits may be issued only under this rule.]

**14.7.6.6 OBJECTIVE:** The purpose of this rule is to establish minimum standards for energy conservation for residential construction in New Mexico. [14.7.6.6 NMAC - Rp, 14.7.6.6 NMAC, 9/25/2020]

**14.7.6.7 DEFINITIONS:** See 14.5.1 NMAC, General Provisions and Chapter 2 of the IECC as amended in 14.7.6.10 NMAC.

[14.7.6.7 NMAC - Rp, 14.7.6.7 NMAC, 9/25/2020]

## 14.7.6.8 ADOPTION OF THE 2018 NEW MEXICO RESIDENTIAL ENERGY CONSERVATION CODE:

- **A.** This rule adopts by reference the 2018 international energy conservation code (IECC), as amended by this rule.
- **B.** In this rule, each provision is numbered to correspond with the numbering of the 2018 international residential energy conservation code.
- **C.** This rule is to be applied to each of the following New Mexico building codes, including the NMRBC, NMPC, NMMC and the NMEC.

[14.7.6.8 NMAC - Rp, 14.7.6.8 NMAC, 9/25/2020]

### 14.7.6.9 CHAPTER 1 - ADMINISTRATION:

- A. Section R101 General.
- (1) **R101.1 Title.** Delete this section of the IECC and substitute: this rule shall be known as 14.7.6 NMAC, the 2018 New Mexico Residential Energy Conservation Code (NMRECC).
  - (2) **R101.2 Scope.** Delete this section of the IECC and see 14.7.6.2 NMAC, Scope.
  - (3) **R101.3 Intent.** Delete this section of the IECC and see 14.7.6.6 NMAC, Objective.
  - (4) R101.5.1 Compliance materials. Delete this section of the IECC and substitute the

following: the code official shall be permitted to approve specific computer software, worksheets, compliance manuals and other similar materials that meet the intent of this code, including but not limited to ComCheck, ResCheck, and worksheet or trade-off sheets from the New Mexico energy conservation code residential

applications manual, issued by the New Mexico department of energy.

- B. Section R102 Alternate Materials-Method of Construction, Design for Insulating Systems. See this section of the IECC.
- **C. Section R103 Construction Documents.** Delete this section of the IECC and see 14.5.2 NMAC, Permits except retain Section R103.2 as amended.
- **D.** Section R103.2 Information on construction documents. Delete section and substitute the following: Ducts shall be installed in accordance with Chapter 6 and Chapter 17 of the New Mexico Mechanical Code and current applicable standards.
  - **E. Section R104 Fees.** Delete this section of the IECC and see 14.5.5 NMAC, Fees.
- **F. Section R105 Inspections.** Delete this section of the IECC and see. 14.5.3 NMAC, General Provisions.
  - **G. Section R106 Validity.** Delete this section of the IECC and see. 14.5.2.12 NMAC Permits.
- H. Section R107 Referenced Standards. All references to the international residential code shall be deemed references to 14.7.3 NMAC, the New Mexico Residential Building Code (NMRBC). All references to the international plumbing code shall be deemed references to 14.8.2 NMAC, the New Mexico Plumbing Code (NMPC). All references to the international mechanical code shall be deemed references to 14.9.2 NMAC, the New Mexico Mechanical Code (NMMC). All references to the ICC or International Electrical Code shall be deemed references to 14.10.4 NMAC, the New Mexico Electrical Code (NMEC). All references to the international energy conservation code shall be deemed references to 14.7.6 NMAC, the New Mexico Residential Energy Conservation Code (NMRECC). All references to the international fuel gas code in the 2018 IECC are deemed references to the NMMC or the LP gas standards found at 19.15.40 NMAC, and Sections 70-5-1 through 70-5-23 NMSA 1978.
- I. Section R108 Stop Work Order. Delete this section of the IECC and see 14.5.3 NMAC, Inspections.
- **J. Section R109 Board of Appeals.** Delete this section of the IECC and See 14.5.1 NMAC, General Provisions.

[14.7.6.9 NMAC - Rp, 14.7.6.9 NMAC, 9/25/2020]

- **14.7.6.10 CHAPTER 2 DEFINITIONS:** See this chapter of the IECC residential provisions, adding the following definitions.
- **A. Section R201.1 Scope.** See this section of the IECC and add the following: If the same term is defined in the New Mexico construction codes and in the IECC, the term shall have the meaning given it in the New Mexico construction codes.
- **B.** Section R201.3 Terms defined in other codes. Delete this section of the IECC and substitute with the following: Terms defined in the New Mexico Residential Construction Code.
  - C. Section R201.4 Terms not defined in other codes. See this chapter of the IECC.
  - **D. Section R202 General Definitions.** See this section of the IECC except as provided below.
- (1) Unconditioned space. Add the following definition: Space within a building that is not mechanically heated or cooled and is outside the building thermal envelope.
- (2) Vapor retarder class. Add the following definition: a measure of a material or assembly's ability to limit the amount of moisture that passes through that material or assembly. Vapor retarder class shall be defined using the desiccant method of ASTME96 as follows:
  - (a) class I: 0.1 perm or less; (b) class II: > 0.1 perm □ 1.0 perm; (c) class III: > 1.0 perm < 10 perm.
  - (3) NMRECC means 2018 New Mexico Residential Energy Conservation Code.
- (4) NMRBC means 14.7.3 NMAC, 2015 New Mexico Residential Building Code, which adopts by reference and amends the 2015 International Residential code.
- (5) NMPC means 2015 New Mexico Plumbing Code, which adopts by reference and amends the 2015 Uniform Plumbing Code.
- (6) NMMC means 14.9.2 NMAC, NMMC 2015 New Mexico Mechanical Code, which adopts by reference and amends the 2015 Uniform Mechanical Code.
- (7) NMEC means 14.10.4 NMAC, NMEC 2017 New Mexico Electrical Code, which adopts by reference and amends the 2017 National Electrical Code.
- **(8) RESNET Software.** Is an approved software program to meet the performance requirements of the IECC.

- (9) **COMCHECK.** Is the residential energy compliance tool designed by the U.S. department of energy (DOE) to clarify residential energy code compliance providing a user information whether building meets the requirements of the International Energy Conservation Code (IECC) and ASHRAE 90.1, as well as state-specific codes.
- (10) **RESCHECK.** A document describing the overall efficiency of the insulation of a building which works by performing a simple U-factor x Area (UA) calculation for each building assembly to determine the overall UA of a building. The UA of the proposed project building is compared to the code requirements.
- (11) **ASTM.** Means the American society for testing and materials, an international standards organization that develops and publishes voluntary consensus building technical standards for a wide range of materials utilized in construction.
- (12) HERS. Means the home energy rating system index and is the industry standard by which a home's energy efficiency is measured. It is also the nationally recognized system for inspecting and calculating a home's energy performance.

[14.7.6.10 NMAC - Rp, 14.7.6.10 NMAC, 9/25/2020]

**14.7.6.11 CHAPTER R301 - CLIMATE ZONES:** See this Chapter of the IECC except delete the text of section 301.1 General and replace with the following: the table below in conjunction with Table 301.3(2) shall be used to determine the applicable requirements for Chapters 4. Locations not listed in the table below shall use either Table 301.1, Section 301.3, or the building official may designate a climate zone consistent with the elevation, HDD & CDD from the table below.

<b>Table 301.2</b>									
New Mexico Climate Zones Based on Heating and Cooling Degree Days									
			Heating Degree	Cooling Degree Days	Climate				
City	County	Elev. (feet)	Days (HDD) 65°F	(CDD) 50°F day	Cumate Zone				
Abiquiu Dam	Rio Arriba	6380	5872	50 F day	5B				
-				105					
Angel Fire	Colfax	8406	9769	195	7B				
Alamogordo	Otero	4350	3053	5309	3B				
Albuquerque	Bernalillo	5312	4332	4462	4B				
Artesia	Eddy	3380	3366	5374	3B				
Aztec Ruins	San Juan	5644	5757		5B				
Belen	Valencia	4800	4432	5012	3B				
Bernalillo	Sandoval	5052	4782	4138	4B				
Bloomfield	San Juan	5456	5490		5B				
Bosque del Apache	Socorro	4520	3916	5012	3B				
Carlsbad	Eddy	3295	2813	5997	3B				
Carrizozo	Lincoln	5438	4234	3631	4B				
Cedar Crest	Bernalillo	6581	5703		5B				
Chaco Canyon	San Juan	6200	6137		5B				
Chama	Rio Arriba	7871	8254		6B				
Clayton	Union	5056	5150	3170	4B				
Cloudcroft	Otero	8801	7205		6B				
Clovis	Curry	4268	4033	4252	4B				
Corona	Valencia	6690	5389	3631	4B				
Cuba	Sandoval	7035	7122		5B				
Deming	Luna	4305	3347	5292	3B				
Dulce	Rio Arriba	6793	7979		6B				
Eagle Nest	Colfax	8262	9254		7B				

Edgewood	Santa Fe	6649	6146		5B
Espanola	Rio Arriba	5643	5641		5B
Farmington	San Juan	5395	5747		5B
Fence Lake	Cibola	7055	6396		5B
Fort Sumner	De Baca	4032	3799	4616	3B
Gallup	McKinley	6465	6207		5B
Glenwood	Catron	4725	3632	4427	4B
Grants	Cibola	6460	6143		5B
Hatch	Dona Ana	4052	3270	5904	3B
Hobbs	Lea	3622	2954	5181	3B
Jemez Springs	Sandoval	6198	5260	2059	4B
Las Cruces	Dona Ana	4000	3223	5904	3B
Las Vegas	San Miguel	6424	5738		5B
Lordsburg	Hidalgo	4250	3213	5210	3B
Los Alamos	Los Alamos	7320	6381		5B
Los Lunas	Valencia	4856	4725	4462	4B
Magdalena	Socorro	6572	5074	2093	4B
Mescalero	Otero	6611	5540		5B
Moriarty	Torrance	6220	4735	3786	4B
Mosquero	Harding	5485	5209	3631	4B
Mountainair	Torrance	6520	5558		5B
Organ	Dona Ana	5245	3215	4919	3B
Placitas	Sandoval	5955	4917	3701	4B
Portales	Roosevelt	4006	3845	4347	4B
Raton	Colfax	6680	6001		5B
Red River	Taos	8671	8742	179	7B
Reserve	Catron	5847	5483		5B
Rio Rancho	Sandoval	5282	4880	3949	4B
Roswell	Chaves	3573	3565	5505	3B
Ruidoso	Lincoln	6920	6309		5B
Sandia Crest	Bernalillo	10680	10034		7B
Sandia Park	Bernalillo	7077	7510		6B
Santa Fe	Santa Fe	7260	6001		5B
Santa Rosa	Guadalupe	4620	3749	4714	3B
Shiprock	San Juan	4892	5475		5B
Silver City	Grant	5895	4438	3975	4B
Socorro	Socorro	4603	3984	5147	3B
Springer	Colfax	5797	5653		5B
Taos	Taos	6967	6827		5B
Taos Ski Valley	Taos	9321	9769		7B
Tatum	Lea	3999	3680	4721	3B
Thoreau	McKinley	7200	5789		5B
Tierra Amarilla	Rio Arriba	7425	7901		6B
Tijeras	Bernalillo	6322	6338		5B
Tohatchi	McKinley	6447	5418		5B

Truth or Consequences	Sierra	4245	3394	5103	3B
Tucumcari	Quay	4096	3767	4429	4B
Tularosa	Otero	4508	3056	5130	3B
Zuni	McKinley	6293	5742		5B

[14.7.6.11 NMAC - Rp, 14.7.6.11 NMAC, 9/25/2020]

# **14.7.6.12 CHAPTER 4 - RESIDENTIAL ENERGY EFFICIENCY:** See this Chapter of the IECC except for the following:

- **A. R401.2 Compliance.** Delete the text of this section and replace with the following: projects shall comply with 401 through 404, which are mandatory provisions, and additionally comply with one of the following:
- (1) Documents showing 2018 IECC Code Compliance, residential provisions approved by CID or worksheet trade-off sheets from the New Mexico energy conservation code residential applications manual; or
  - (2) Section R405.
  - (3) The energy rating index (ERI) approach in Section R406.
- (4) The approved sampling protocols included in Chapter 6 of the National Standard for Home Energy Ratings.
- (5) Code programs recognized by the state of New Mexico such as Build Green New Mexico or LEED-H, approved under IECC section 102.1.1, except strike the last sentence that reads: The requirements identified as "mandatory" in Chapter 4 shall be met.
- **B. R402.2.8 Floors.** Delete the text of this section and replace with the following: Floor framing-cavity insulation when separating conditioned and non-conditioned space shall be installed to maintain permanent contact with the underside of the subfloor decking.

**Exception:** As an alternative, the floor framing-cavity insulation shall be in contact with the topside of sheathing or continuous insulation installed on the bottom side of floor framing where combined with insulation that meets or exceeds the minimum wood frame wall R-value in Table R402.1.2 and that extends from the bottom to the top of all perimeter floor-framing members.

- **C. R402.4.1 Building thermal envelope.** Amending to read as follows: The building thermal envelope shall comply with Sections R402.4.1.1 and R402.4.1.3 with optional compliance of R402.4.1.2 by all counties not mentioned in subsection F below.
- **D. R402.4.1.2 Testing.** Amend to read as follows: The building or dwelling unit shall be tested and verified as having an air leakage rate not exceeding four air changes per hour in Climate Zones 1 thru 8. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E779 or ASTM E1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals).
- **E. R402.4.1.3 Visual Inspection Option.** Add the following section: Building envelope tightness, and insulation installation shall be considered acceptable with the items listed in Table 402.1.2 applicable to the method of construction, if field verified by either the builder, a code official, or an energy rater using the state of New Mexico acceptable processes. Acceptable processes include a thermal bypass visual inspection checklist, a thermal bypass certification or checklist from a HERS rater, a Build green NM checklist, or an energy star program checklist from the New Mexico Energy, Minerals and Natural Resources Department.
- **F. R402.4.1.4 Based on census.** Add new section to read as follows: Based on census rural urban mapping the following areas will be required to comply with R402.4.1, R402.4.1.2 Testing and R403.3.3 Duct testing: San Juan County, Sandoval County, Santa Fe County, Bernalillo County, Torrance County, and Dona County.
- G. R402.4.1.5 State of New Mexico Thermal Bypass Inspection Checklist and Duct Sealing Visual Inspection Checklist. Add new section to read as follows: In accordance with section R402.4.1, R402.4.1.2 and R403.3.3 thermal bypass inspection checklist and Duct Sealing Visual Inspection Checklist will be provided at the time of issuance of building permit or can also be accessed at www.rld.State.nm.us/construction under forms and applications.
- **H. R403.1.1 Programmable thermostat.** The thermostat controlling the primary heating or cooling system of the dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule to maintain different temperature setpoints at different times of the day. This thermostat shall include the capability to set back or temporarily operate the system to maintain zone temperatures of not less than  $55^{\circ}F$  ( $13^{\circ}C$ ) to not greater than  $85^{\circ}F$  ( $29^{\circ}C$ ). The thermostat shall be programmed initially by the manufacturer with a heating temperature setpoint of not greater than  $70^{\circ}F$  ( $21^{\circ}C$ ) and a cooling temperature setpoint of not less than  $78^{\circ}F$ .

### **Exceptions:**

- (1) When a water circulation system is utilized to heat and/or cool the residence, no programmable set back thermostat is required.
- (2) Where the home is registered in a performance-based certification program, the requirements for a programmable thermostat shall be waived.
- (3) Where approved alternative methods of construction and/or materials are being used, programmable thermostats may be omitted.
- **I. R403.3.3 Duct testing (Mandatory).** Add the following Exception: (3.) Duct sealing shall be considered in compliance with R403.3.3 when field, verified by either the builder, a code official, or an energy rater using the state of New Mexico duct sealing visual inspection checklist.
- **J. R403.4 Mechanical system piping insulation (Mandatory).** Add the following Exception: Infloor radiant heating or cooling systems do not require insulation. [14.7.6.12 NMAC Rp, 14.7.6.12 NMAC, 9/25/2020]

## **14.7.6.13 CHAPTER 5 - BUILDINGS:** See this Chapter of the IECC.

[14.7.6.13 NMAC - Rp 14.7.6.13 NMAC, 9/25/2020]

### **14.7.6.14 CHAPTER 6 - REFERENCED STANDARDS:** See this Chapter of the IECC.

[14.7.6.14 NMAC - Rp 14.7.6.14 NMAC, 9/25/2020]

### **HISTORY OF 14.7.6 NMAC:**

Pre NMAC History: None.

#### **History of Repealed Material:**

14.7.6 NMAC, 2003 New Mexico Energy Conservation Code (filed 5/27/2004) repealed 1/7/2004.

14.7.6 NMAC, 2006 New Mexico Energy Conservation Code (filed 8/16/2007) repealed 1/28/2011.

14.7.6 NMAC, 2009 New Mexico Energy Conservation Code (filed 12/28/2010) repealed 8/1/2011.

14.7.6 NMAC, 2009 New Mexico Energy Conservation Code (filed 6/15/2011) repealed 6/28/2013.

14.7.6 NMAC, 2009 New Mexico Energy Conservation Code (filed 6/28/2013) repealed 9/25/2020.

### **NMAC History:**

14.7.6 NMAC, 2003 New Mexico Energy Conservation Code (filed 5/27/2004) replaced by 14.7.6 NMAC, 2006 New Mexico Energy Conservation Code, effective 1/1/2008.

14.7.6 NMAC, 2006 New Mexico Energy Conservation Code (filed 8/1622007) replaced by 14.7.6 NMAC, 2009 New Mexico New Mexico Energy Conservation Code, effective 1/28/2011.

14.7.6 NMAC, 2009 New Mexico Energy Conservation Code (filed 12/28/2010) replaced by 14.7.6 NMAC, 2009 New Mexico Energy Conservation Code, effective 8/1/2011.

14.7.6 NMAC, 2009 New Mexico Energy Conservation Code (filed 6/15/2011) replaced by 14.7.6 NMAC, 2009 New Mexico Energy Conservation Code, effective 6/28/2013.

 $14.7.6\ NMAC,\ 2009\ New\ Mexico\ Energy\ Conservation\ Code\ (filed\ 6/28/2013)\ replaced\ by\ 14.7.6\ NMAC,\ 2018\ New\ Mexico\ Energy\ Conservation\ Code,\ effective\ 9/25/2020.$