

**TITLE 87
LEGISLATIVE RULE
STATE FIRE COMMISSION**

**SERIES 4
STATE BUILDING CODE**

§87-4-1. General.

1.1. Scope. -- This rule establishes the standards considered necessary by the State Fire Commission for the safeguarding of life and property and to ensure compliance with the minimum standards of safe construction of all structures erected or renovated throughout this state.

1.2. Authority. -- W. Va. Code §15A-11-5.

1.3. Filing Date. -- May 5, 2022.

1.4. Effective Date. -- August 1, 2022.

1.5. Sunset Provision. -- This rule shall terminate and have no further force or effect on August 1, 2027.

1.6. Exemptions. -- The State Building Code has no application to buildings or structures used primarily for agricultural purposes including agritourism purposes.

1.7. Incorporation of Other Documents. -- This rule does not include a reprinting of all the requirements imposed by statute or by the incorporation of various nationally recognized standards and codes cited in Subsection 4.1 of this rule. For ascertaining these additional standards and requirements, it is necessary to make reference to the other documents.

§87-4-2. Definitions.

2.1. “ANSI” means American National Standards Institute, 25 West 43rd St., Fourth Floor, New York, NY 10036.

2.2. “ASTM” means American Society of Testing and Materials.

2.3. “Fire Commission” means the thirteen (13) appointed members of the West Virginia State Fire Commission.

2.4. “Fire Marshal” means the West Virginia State Fire Marshal and/or his or her designated representatives.

2.5. “ICC” or “International” means International Code Council.

2.6. “Local jurisdiction” means municipal, county, or other local government.

2.7. “NFPA” means National Fire Protection Association.

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2.8. “State Building Code” means the entire contents of this rule and the referenced national standards and codes.

2.9. “State Fire Code” means the entire contents of the State Fire Code, 87CSR1, and the referenced standards and codes.

§87-4-3. Conflicts.

3.1. Whenever there is a conflict between the State Fire Code and the State Building Code, the State Fire Code takes precedence.

3.2. Whenever there is a conflict between the International Plumbing Code requirements of the State Building Code and the rules of the West Virginia State Department of Health and Human Resources, the rules of the Department of Health and Human Resources take precedence.

3.3. Whenever there is a conflict between the State Building Code and statutory laws of the State of West Virginia, the laws of the State of West Virginia take precedence.

§87-4-4. National Standards and Codes.

4.1. The standards and requirements as set out and as published by the International Code Council, and American National Standards Institute, and the National Fire Protection Association as listed in this subsection, have the same force and effect as if set out verbatim in this rule.

4.1.a. The 2018 edition, International Building Code, with the following exceptions:

4.1.a.1. Provided; that the section entitled “Fire Prevention” and identified as Section 101.4.5 is deleted and not considered to be a part of this rule.

4.1.a.2. Further provided that the entire subsection entitled “Qualifications” and identified as Section 113.3 is deleted and replaced with the following:

“Section 113.3. Board of Appeals

113.3. Qualifications. The board of appeals shall consist of five members, with up to three alternates, who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the jurisdiction. They may include, but are not limited to, a WV Registered Professional Architect or Engineer, or a WV Licensed General Building, Residential, Electrical, Piping, Plumbing, Mechanical or Fire Protection Contractor, with at least 10 years experience, five of which shall be in responsible charge of work. No less than one of the members of such Board of Appeals shall be a WV Registered Professional Architect or Engineer, or a WV Licensed General Building, Residential, Electrical, Piping, Plumbing, Mechanical or Fire Protection Contractor.”

4.1.b. The 2018 edition of the International Plumbing Code.

4.1.c. The 2018 edition of the International Mechanical Code. The following shall be in addition to the current language found in the said edition of the reference code and section:

4.1.c.1. See International Mechanical Code, Section 908, Cooling Towers, Evaporative Condensers and Fluid Coolers.

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4.1.c.1.A. 908.1 General- A cooling tower used in conjunction with an air-conditioning appliance shall be installed in accordance with the manufacturer's instructions. Factory-built cooling towers shall be listed in accordance with UL 1995 or UL/CSA 60335-2-40.

4.1.c.1.B. Section 916 Pool and Spa Heaters

4.1.c.1.B.1. 916.1 General- Pool and spa heaters shall be installed in accordance with the manufacturer's instructions. Oil-fired pool and spa heaters shall be tested in accordance with UL 1261. Pool and spa heat pump water heaters shall comply with UL 1995, UL/CSA 60335-2-40 or CSA C22.2 No. 236.

4.1.c.1.B.1.(a). Exception: Portable residential spas and portable residential exercise spas shall comply with UL 1563 or CSA C22.2 No. 218.1.

4.1.c.1.C. Section 918 Forced-Air Warm-Air Furnaces

4.1.c.1.C.1. 918.1 Forced-Air furnaces- Oil-fired furnaces shall be tested in accordance with UL 727. Electric furnaces shall be tested in accordance with UL 1995 or UL/CSA 60335-2-40. Solid fuel furnaces shall be tested in accordance with UL 391. Forced-air furnaces shall be installed in accordance with the listings and the manufacturer's instructions.

4.1.c.1.C.2. 1918.2 Heat Pumps- Electric heat pumps shall be tested in accordance with UL 1995 or UL/CSA 60335-2-40.

4.1.c.1.D. Section 1101 General

4.1.c.1.D.1. 1101.2 Factory-Built Equipment and Appliances- Listed and labeled self-contained, factory-built equipment and appliances shall be tested in accordance with UL 207, 412, 471, 1995, UL/CSA 60335-2-40, or UL/CSA 60335-2-89. Such equipment and appliances are deemed to meet the design, manufacture and factory test requirements of this code if installed in accordance with their listing and the manufacturer's instructions.

4.1.c.1.D.2. 1101.6 General. Refrigeration systems shall comply with the requirements of this code and, except as modified by this code, ASHRAE 15. Ammonia-refrigerating systems shall comply with this code and, except as modified by this code, ASHRAE 15, IIAR 2. High probability systems utilizing A2L refrigerants shall comply with ASHRAE 15.

4.1.c.1.E. Chapter 15 REFERENCED STANDARDS

4.1.c.1.E.1. 1501.3 Referenced Standards – See Table 1

ASHRAE	ASHRAE 1791 Tullie Circle, NE Atlanta, GA 30329
Standard reference number	Title
15-2019	Safety Standard for Refrigeration Systems

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Designation and Safety Classification of Refrigerants

CSA

CSA Group
8501 East Pleasant Valley Road
Cleveland, OH 44131-5516

Standard reference number	Title
CSA C22.2 No. 60335-2-40—19	Household And Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers – 3 rd Edition
CSA C22.2 No. 60335-2-89—21	Household And Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor
Table 1	
UL	UL LLC 333 Pfingsten Road Northbrook, IL 60062-2096
Standard reference number	Title
UL/CSA 60335-2-40—19	Household And Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers – 3 rd Edition
UL/CSA 60335-2-89—21	Household And Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor

Table 1

4.1.d. The 2018 edition of the International Fuel Gas Code, with the following exception:

4.1.d.1. Section 404.10 Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade. If the minimum depth cannot be maintained, the piping system shall be installed in conduit or shielded in an approved manner.

4.1.e. The 2018 edition of the International Property Maintenance Code. This code may be rejected at the option of the local jurisdiction.

4.1.e.1. This code may be adopted by the local jurisdiction without requiring adoption of the other national codes and standards listed in this rule.

4.1.f. The 2015 edition of the International Energy Conservation Code for residential buildings, with the following exception:

4.1.f.1. Section, R402.4.1.2. Testing. The building or dwelling unit shall in lieu thereof have an air leakage rate not exceeding five air changes per hour in Climate Zones 3 through 8.

4.1.g. The ANSI/ASHRAE/IESNA Standard 90.1 2013 edition for commercial buildings.

4.1.g.1. Using building energy benchmarking in all commercial structures means measuring a building's energy use and then comparing it to the energy use of similar buildings, its own historical energy usage, or a reference performance level, and is an allowable option for improved energy efficiency and performance.

4.1.h. The 2018 edition of the International Residential Code for One- and Two-Family Dwellings, with the following exceptions:

4.1.h.1. Chapter 11 of the 2018 edition of the International Residential Code for One- and Two-Family Dwellings, Seventh Printing, entitled "Energy Efficiency", is exempt from this rule.

4.1.h.2. Section G2415.12 (404.10) Minimum Burial Depth. Underground piping systems shall be installed a minimum depth of 12 inches (305 mm) below grade. If the minimum depth cannot be maintained, the piping system shall be installed in conduit or shielded in an approved manner.

4.1.h.3. Section M1402 Central Furnaces.

4.1.h.3.A. M1402.1 General- Oil-fired central furnaces shall conform to ANSI/UL 727. Electric furnaces shall conform to UL 1995 or UL/CSA 60335-2-40.

4.1.h.3.B. Section M1403 Heat Pump Equipment

4.1.h.3.B.1. M1403.1 Heat pumps- Electric heat pumps shall be listed and labeled in accordance with UL 1995 or UL/CSA 60335-2-40.

4.1.h.3.C. Section M1412 Absorption Cooling Equipment

4.1.h.3.C.1. M1412.1 Approval of equipment- Absorption systems shall be installed in accordance with the manufacturer's instructions. Absorption equipment shall comply with UL 1995 or UL/CSA 60335-2-40.

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4.1.h.3.D. Section M1413 Evaporative Cooling Equipment

4.1.h.3.D.1. M1413.1 General- Evaporative cooling equipment and appliances shall comply with UL 1995 or UL/CSA 60335-2-40 and shall be installed in accordance with 4401.3 Referenced standard list:

4.1.h.3. E. Chapter 44 Referenced standards

4.1.h.3.E.1. 4401.3 Referenced standard list – See table 2

ASHRAE	ASHRAE 1791 Tullie Circle NE Atlanta, GA 30329
Standard referenced	Title
Table 2	
34-2019:	Designation and Safety Classification of Refrigerants
CSA	CSA Group 8501 East Pleasant Valley Road Cleveland, OH 44131-5516
Standard referenced	Title
CAN/CSA/C22.2 No. 60335-2-40-2019	Safety of Household and Similar Electric Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers-3 rd edition
UL	UL LLC 333 Pfingsten Road Northbrook, IL 60062
Standard referenced	Title
1995-2015:	Heating and Cooling Equipment
UL/CSA/ 2-40-2019:	60335- Safety of Household and Similar Electrical Appliances, Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers-3 rd Edition
Table 2	
4.1.i. Section R311.7.5 Stair Treads and Risers	

4.1.i.1. 311.7.5.1 Riser Heights -- The maximum riser height shall be eight and one-quarter (8 ¼) inches.

4.1.i.2. 311.7.5.2 Tread Depth -- The minimum tread depth shall be nine (9) inches.

4.1.j. Section R403.1.7.1: Building Clearances from Ascending Slopes is not applicable to this rule.

4.1.k. Section R403.1.7.2: Footings Setbacks from Descending Slope Surfaces is not applicable to this rule.

4.1.l. The 2017 ICC/ANSI A117.1 American National Standards for Accessibility & Usable Buildings & Facilities.

4.1.l.1. The 2018 International Existing Building Code, with the following exception:

4.1.l.2. Omit reference to International Fire Code and substitute NFPA Life Safety Code 2018 edition.

4.1.m. The 2020 edition of the National Electrical Code, NFPA 70, with the following exception:

4.1.m.1. Section 210.8(F) GFCI Protection shall not be required on all new mini-split heating/ventilation/air-conditioning (HVAC) equipment and other HVAC units employing power conversion equipment as a means to control compressor speed systems including but not limited to mini-split and A/C units until January 1, 2023.

4.1.m.2. For renovations in one- and two-family homes where no new square footage is involved, arc-fault circuit interrupter (AFCI) protection shall not be required, except for in bedrooms. For renovation in one- and two-family homes where square footage is added but no electrical service is installed, arc-fault circuit interrupter (AFCI) protection shall not be required.

4.1.n. The 2018 edition of the International Swimming Pool and Spa Code.

4.2. Wherever referenced in the several ICC codes adopted in this section, any reference to the International Fire Code should be substituted with the NFPA Life Safety Code 2021 edition.

4.3. Whenever a certificate of occupancy is required of a commercial structure greater in size than 7,600 feet, the project documents shall be designed by an Architect licensed by the WV Board of Architects, or a Professional Engineer licensed by the WV State Board of Registration for Professional Engineers.

§87-4-5. Fire Protection of Floors in Residential Buildings

5.1. New One and Two Family Dwellings over one level in height, New One and Two Family Dwellings containing a basement, and New One and Two Family Dwellings containing a crawl space containing a fuel burning appliance below the first floor, shall provide one of the following methods for fire protection of floors: (1) A 1/2 inch (12.7 mm) gypsum wallboard membrane, 5/8 inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member; (2) Wood floor assemblies using dimension lumber or structural composite lumber equal or greater than 2 inch by 10 inch

(50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance; or (3) An Automatic Fire Sprinkler System as set forth in section R313.1 or R313.2 of the 2015 edition of the International Residential Code for One and Two Family Dwellings: *Provided*, That floor assemblies located directly over a space protected by an automatic sprinkler system as set forth in section R313.1 or R313.2 of the 2015 edition of the International Residential Code for One and Two Family Dwellings are exempt from this requirement.

5.2. Townhouses meeting the Fire-Resistant Construction Standard R302.2 will be treated as New One- and Two-Family Dwellings and shall comply with Section 5.1 above.

§87-4-6. Exceptions.

6.1. The following structures are not subject to inspection by local jurisdictions:

6.1.a. Group U utility structures and storage sheds comprising an area not more than 200 sq. ft. which have no plumbing or electrical connections and are used only for residential storage purposes. (Examples include sheds that are for the residential storage of lawnmowers, tools, bicycles or furniture.) Not included are those utility structures and storage sheds which have plumbing or electrical connections are a non-residential use or for the storage of explosives or other hazardous or explosive materials.

§87-4-7. Adoption by Local Jurisdiction.

7.1. Each local jurisdiction adopting the State Building Code shall notify the State Fire Commission in writing. The local jurisdiction shall send a copy of the ordinance or order to the State Fire Marshal, West Virginia State Fire Commission, 1207 Quarrier Street, 2nd floor, Charleston, West Virginia 25301, within thirty (30) days of adoption.

7.2. Each local jurisdiction which adopts the State Building Code is responsible for the enforcement of the building code as provided in West Virginia Code 7-1-3n and 8-12-13.

7.3. Throughout the national codes, adopted in subsection 4.1 of this rule, there are discretionary provisions or amendments which require further action by the adopting local jurisdiction in order to adapt these codes to various local conditions. The appendices are not a part of the code and must also be adopted by the local jurisdiction to be enforceable. It is therefore the intent of this rule to further authorize each local jurisdiction to further complete, by order or ordinance, those respective areas which are indicated to be completed by the adopting "jurisdiction" and any of the appendices the local jurisdiction wishes to adopt.

7.4. Within the penalty sections of each of the national codes, adopted in Section 4.1 of this rule, there is a penalty for imprisonment. The provision of imprisonment for any violation of this rule is optional with each adopting local jurisdiction.

7.5. Each of the national codes adopted in subsection 4.1 of this rule provides for a separate appeals board. However, the intent and requirements for an appeal board may be met with the creation by the local jurisdiction of a single appeals board for the entire "State Building Code."

7.6. Each local jurisdiction adopting the State Building Code shall comply with the requirements set forth in Title 87, Series 7 "Standards for the Certification and Continuing Education of Municipal, County, and Public-Sector Building Code Officials, Building Code Inspectors and Plans Examiners."

7.7. All questions of interpretation and enforcement of the State Building Code are delegated to the

local jurisdiction unless expressly provided by State Code, by this Rule, or by the incorporated codes and standards referenced in this Rule.

§87-4-8. Existing Building Codes.

8.1. All building codes previously adopted by local jurisdictions are null and void.

§87-4-9. Exemption for agricultural purposes.

9.1. If a property owner or other responsible party claims exemption from the applicable Building Code based on the agricultural purposes exemption identified in subsection 1.6 of this rule, he or she shall submit the question to the Commissioner of Agriculture for a determination of eligibility.

9.2. The property owner or responsible party shall submit to the Commissioner of Agriculture sufficient information to allow the Commissioner to determine the primary use of the property. This information shall include, but is not limited to, the location of the property and buildings, the types of agricultural use or uses, the percentage or frequency of use, and any other information that the Commissioner requires to make a decision.

9.3. The Commissioner of Agriculture shall provide a copy of his or her decision to the property owner or responsible party, and to the entity that has adopted and is enforcing the Building Code.