

1 STATE CONSTRUCTION CODE AMENDMENTS

2 2015 GENERAL SESSION

3 STATE OF UTAH

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5 LONG TITLE

6 General Description:

7 This bill modifies provisions of the State Construction Code.

8 Highlighted Provisions:

9 This bill:

- 10 ▶ adopts the 2014 National Electrical Code;
- 11 ▶ adds an amendment to the 2014 National Electrical Code that relates to certain
- 12 circuit breakers;
- 13 ▶ modifies a local amendment to the International Residential Code that applies to the
- 14 City of Farmington;
- 15 ▶ updates a reference to the International Fire Code from the 2009 edition to the 2012
- 16 edition; and
- 17 ▶ makes technical and conforming changes.

18 Money Appropriated in this Bill:

19 None

20 Other Special Clauses:

21 None

22 Utah Code Sections Affected:

23 AMENDS:

- 24 15A-2-103, as last amended by Laws of Utah 2013, Chapters 279 and 297
- 25 15A-3-303, as last amended by Laws of Utah 2013, Chapter 297
- 26 15A-3-601, as last amended by Laws of Utah 2013, Chapter 297
- 27 15A-4-107, as enacted by Laws of Utah 2011, Chapter 14
- 28 15A-4-203, as enacted by Laws of Utah 2011, Chapter 14

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30 *Be it enacted by the Legislature of the state of Utah:*

31 Section 1. Section 15A-2-103 is amended to read:

32 15A-2-103. Specific editions adopted of construction code of a nationally

33 **recognized code authority.**

34 (1) Subject to the other provisions of this part, the following construction codes are  
35 incorporated by reference, and together with the amendments specified in Chapter 3, Statewide  
36 Amendments to International Plumbing Code, and Chapter 4, Local Amendments Incorporated  
37 as Part of State Construction Code, are the construction standards to be applied to building  
38 construction, alteration, remodeling, and repair, and in the regulation of building construction,  
39 alteration, remodeling, and repair in the state:

40 (a) the 2012 edition of the International Building Code, including Appendix J, issued  
41 by the International Code Council;

42 (b) the 2012 edition of the International Residential Code, issued by the International  
43 Code Council;

44 (c) the 2012 edition of the International Plumbing Code, issued by the International  
45 Code Council;

46 (d) the 2012 edition of the International Mechanical Code, issued by the International  
47 Code Council;

48 (e) the 2012 edition of the International Fuel Gas Code, issued by the International  
49 Code Council;

50 (f) the ~~[2011]~~ 2014 edition of the National Electrical Code, issued by the National Fire  
51 Protection Association;

52 (g) the 2012 edition of the International Energy Conservation Code, issued by the  
53 International Code Council;

54 (h) subject to Subsection 15A-2-104(2), the HUD Code;

55 (i) subject to Subsection 15A-2-104(1), Appendix E of the 2012 edition of the  
56 International Residential Code, issued by the International Code Council; and

57 (j) subject to Subsection 15A-2-104(1), the 2005 edition of the NFPA 225 Model  
58 Manufactured Home Installation Standard, issued by the National Fire Protection Association.

59 (2) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire  
60 Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code,  
61 issued by the International Code Council, with the alternatives or amendments approved by the  
62 Utah Division of Forestry, as a construction code that may be adopted by a local compliance  
63 agency by local ordinance or other similar action as a local amendment to the codes listed in

64 this section.

65 Section 2. Section **15A-3-303** is amended to read:

66 **15A-3-303. Amendments to Chapter 3 of IPC.**

67 (1) In IPC, Section 303.4, the following exception is added:

68 "Exception: Third-party certification for backflow prevention assemblies will consist of any  
69 combination of two certifications, laboratory or field. Acceptable third party laboratory  
70 certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently  
71 provides the only field testing of backflow protection assemblies. Also see  
72 www.drinkingwater.utah.gov and Division of Drinking Water Rule, Utah Administrative Code,  
73 R309-305-6."

74 (2) IPC, Section 304.3, Meter Boxes, is deleted.

75 (3) IPC, Section 311.1, is deleted.

76 (4) In IPC, Section 312.3, the following is added at the end of the paragraph:

77 "Where water is not available at the construction site or where freezing conditions limit  
78 the use of water on the construction site, plastic drainage and vent pipe may be permitted to be  
79 tested with air. The following procedures shall be followed:

80 1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can  
81 explode, causing serious injury or death.

82 2. Contractor assumes all liability for injury or death to persons or damage to property or for  
83 claims for labor and/or material arising from any alleged failure of the system during testing  
84 with air or compressed gasses.

85 3. Proper personal protective equipment, including safety eyewear and protective headgear,  
86 should be worn by all individuals in any area where an air or gas test is being conducted.

87 4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.

88 5. No [~~water supply~~] drain and vent system shall be pressurized in excess of 6 psi as measured  
89 by accurate gauges graduated to no more than three times the test pressure.

90 6. The pressure gauge shall be monitored during the test period, which should not exceed 15  
91 minutes.

92 7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or  
93 gases should be vented, and test balls and plugs should be removed with caution."

94 (5) In IPC, Section 312.5, the following is added at the end of the paragraph:

95 "Where water is not available at the construction site or where freezing conditions limit  
96 the use of water on the construction site, plastic water pipes may be permitted to be tested with  
97 air. The following procedures shall be followed:

- 98 1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can  
99 explode, causing serious injury or death.
- 100 2. Contractor assumes all liability for injury or death to persons or damage to property or for  
101 claims for labor and/or material arising from any alleged failure of the system during testing  
102 with air or compressed gasses.
- 103 3. Proper personal protective equipment, including safety eyewear and protective headgear,  
104 should be worn by all individuals in any area where an air or gas test is being conducted.
- 105 4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.
- 106 5. Water supply systems shall be pressure tested to a minimum of 50 psi but not more than 80  
107 psi as measured by accurate gauges graduated to no more than three times the test pressure.
- 108 6. The pressure gauge shall be monitored during the test period, which should not exceed 15  
109 minutes.
- 110 7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or  
111 gases should be vented, and test balls and plugs should be removed with caution."

112 (6) A new IPC, Section 312.10.3, is added as follows: "312.10.3 Tester Qualifications.  
113 Testing shall be performed by a Utah Certified Backflow Preventer Assembly Tester in  
114 accordance with Utah Administrative Code, R309-305."

115 Section 3. Section **15A-3-601** is amended to read:

116 **15A-3-601. General provision.**

117 The following are adopted as amendments to the NEC to be applicable statewide:

118 (1) The IRC provisions are adopted as the residential electrical standards applicable to  
119 installations applicable under the IRC. All other installations shall comply with the adopted  
120 NEC.

121 [~~(2) In NEC, Section 310.15(B)(7), the second sentence is deleted and replaced with~~  
122 ~~the following: "For application of this section, the main power feeder shall be the feeder(s)~~  
123 ~~between the main disconnect and the panelboard(s)."~~]

124 (2) In NEC, Section 240.87(B) the following is added as an additional approved  
125 equivalent means:

126 "6. An instantaneous trip function set at or below the available fault current."

127 Section 4. Section **15A-4-107** is amended to read:

128 **15A-4-107. Amendments to IBC applicable to Sandy City.**

129 The following amendments are adopted as amendments to the IBC for Sandy City:

130 (1) A new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 An automatic  
131 sprinkler system shall be installed in accordance with NFPA 13 throughout buildings  
132 containing all occupancies where fire flow exceeds 2,000 gallons per minute, based on Table  
133 B105.1 of the [2009] 2012 International Fire Code. Exempt locations as indicated in Section  
134 903.3.1.1.1 are allowed.

135 Exception: Automatic fire sprinklers are not required in buildings used solely for worship,  
136 Group R Division 3, Group U occupancies and buildings complying with the International  
137 Residential Code unless otherwise required by the International Fire Code.

138 (2) A new IBC, Appendix L, is added and adopted as follows: "Appendix L  
139 BUILDINGS AND STRUCTURES CONSTRUCTED IN AREAS DESIGNATED AS  
140 WILDLAND-URBAN INTERFACE AREAS  
141 AL 101.1 General. Buildings and structures constructed in areas designated as Wildland-Urban  
142 Interface Areas by Sandy City shall be constructed using ignition resistant construction as  
143 determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban  
144 Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to  
145 determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 International  
146 Wildland-Urban Interface Code, as modified herein, shall be used to determine the  
147 requirements for Ignition Resistant Construction.

148 (i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new  
149 Section 504.1.1 is added as follows: "504.1.1 General. Subsections 504.5, 504.6, and 504.7  
150 shall only be required on the exposure side of the structure, as determined by the Fire Marshal,  
151 where defensible space is less than 50 feet as defined in Section 603 of the 2006 International  
152 Wildland-Urban Interface Code.

153 (ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION  
154 Subsections 505.5 and 505.7 are deleted."

155 Section 5. Section **15A-4-203** is amended to read:

156 **15A-4-203. Amendments to IRC applicable to City of Farmington.**

157 The following amendments are adopted as amendments to the IRC for the City of  
 158 Farmington:

159 (1) In IRC, R324 Automatic Sprinkler Systems, new IRC, Sections R324.1 and R324.2  
 160 are added as follows: "R324.1 ~~[When required]~~. An automatic sprinkler system ~~[shall]~~ may be  
 161 installed throughout ~~[every]~~ any dwelling in accordance with NFPA 13D~~[- when any of the~~  
 162 ~~following conditions are present:]~~ and the requirements of this section.

- 163 ~~[1. the structure is over two stories high, as defined by the building code;]~~
- 164 ~~[2. the nearest point of structure is more than 150 feet from the public way;]~~
- 165 ~~[3. the total floor area of all stories is over 5,000 square feet (excluding from the calculation~~  
 166 ~~the area of the basement and/or garage); or]~~
- 167 ~~[4. the structure is located on a street constructed after March 1, 2000 that has a gradient over~~  
 168 ~~12% and, during fire department response, access to the structure will be gained by using such~~  
 169 ~~street. (If the access is intended to be from a direction where the steep gradient is not used, as~~  
 170 ~~determined by the Chief, this criteria shall not apply).]~~

171 R324.2 Installation requirements and standards. Such sprinkler system shall be installed in  
 172 basements, but need not be installed in garages, under eaves or in enclosed attic spaces, unless  
 173 required by the Chief. ~~[Such system shall be installed in accordance with NFPA 13D:]~~"

174 (2) In IRC, Chapter 44, the following NFPA referenced standards are added as follows:

175		"TABLE
176	ADD	
177	13D-07	Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes, as amended by these rules
178	13R-07	Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height"

179 (3) In NFPA, Section 13D-07, new sections are added as follows: "1.15 Reference to  
 180 NFPA 13D. All references to NFPA 13D in the codes, ordinances, rules, or regulations  
 181 governing NFPA 13D systems shall be read to refer to "modified NFPA 13D" to reference the  
 182 NFPA 13D as amended by additional regulations adopted by Farmington City.

183 4.9 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall  
 184 include, but are not limited to:

185 Residential:

186 ROUGH Inspection-Verify Water Supply Piping Size and Materials, Installation of Riser,  
187 System Piping, Head Locations and all Components, Hydrostatic Pressure Test.

188 FINAL Inspection-Inspectors Test Flow, System Completeness, Spare Parts, Labeling of  
189 Components and Signage, Alarm Function, Water Supply Pressure Verification.

190 5.2.2.3 Exposed Piping of Metal. Exposed Sprinkler Piping material in rooms of dwellings  
191 shall be of Metal.

192 EXCEPTIONS:

193 a. CPVC Piping is allowed in unfinished mechanical and storage rooms only when specifically  
194 listed for the application as installed.

195 b. CPVC Piping is allowed in finished, occupied rooms used for sports courts or similar uses  
196 only when the ceiling/floor framing above is constructed entirely of non-combustible materials,  
197 such as a concrete garage floor on metal decking.

198 5.2.2.4 Water Supply Piping Material. Water Supply Piping from where the water line enters  
199 the dwelling adjacent to and inside the foundation to the fire sprinkler contractor  
200 point-of-connection shall be metal, suitable for potable plumbing systems. See Section 7.1.4  
201 for valve prohibition in such piping. Piping down stream from the point-of-connection used in  
202 the fire sprinkler system, including the riser, shall conform to NFPA 13D standards.

203 5.4 Fire Pump Disconnect Signs. When installing a Fire Pump, Red Plastic Laminate Signs  
204 shall be installed in the electrical service panel, if the pump is wired separately from the main  
205 disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES  
206 NOT Shut Off Fire Pump".

207 7.1.4 Valve Prohibition. NFPA 13D, Section 7.1 is hereby modified such that NO VALVE is  
208 permitted from the City Water Meter to the Fire Sprinkler Riser Control.

209 7.6.1 Mandatory Exterior Alarm. Every dwelling that has a fire sprinkler system shall have an  
210 exterior alarm, installed in an approved location. The alarm shall be of the combination  
211 horn/strobe or electric bell/strobe type, approved for outdoor use.

212 8.1.05 Plan Preparation Identification. All plans for fire sprinkler systems, except for  
213 manufacturer's cut sheets of equipment, shall include the full name of the person who prepared  
214 the drawings. When the drawings are prepared by a registered professional engineer, the  
215 engineer's signature shall also be included.

216 8.7 Verification of Water Supply:  
217 8.7.1 Fire Flow Tests: Fire Flow Tests for verification of Water Supply shall be conducted and  
218 witnesses for all applications other than residential, unless directed otherwise by the Chief. For  
219 residential Water Supply, verification shall be determined by administrative procedure.  
220 8.7.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an  
221 accurate and verifiable Water Supply.