

STATE FIRE CODE AMENDMENTS

2012 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: James A. Dunnigan

Senate Sponsor: John L. Valentine

LONG TITLE

Committee Note:

The Business and Labor Interim Committee recommended this bill.

General Description:

This bill modifies the State Fire Code Act.

Highlighted Provisions:

This bill:

- ▶ enacts a definition of "premixed" with respect to an antifreeze and water solution;
- ▶ deletes and replaces a provision relating to hazardous environmental conditions; and
- ▶ modifies provisions relating to antifreeze used in automatic sprinkler systems.

Money Appropriated in this Bill:

None

Other Special Clauses:

This bill takes effect on July 1, 2012.

Utah Code Sections Affected:

AMENDS:

15A-5-102, as enacted by Laws of Utah 2011, Chapter 14

15A-5-202, as enacted by Laws of Utah 2011, Chapter 14

15A-5-204, as enacted by Laws of Utah 2011, Chapter 14

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



28 Section 1. Section 15A-5-102 is amended to read:

29 **15A-5-102. Definitions.**

30 As used in this chapter:

31 (1) "Appreciable depth" means a depth greater than 1/4 inch.

32 (2) "AHJ" means "authority having jurisdiction," which is:

33 (a) the State Fire Marshal;

34 (b) an authorized deputy of the State Fire Marshal; or

35 (c) the local fire enforcement authority.

36 (3) "Division" means the State Fire Marshal Division created in Section 53-7-103.

37 (4) (a) "Dwelling Unit" means one or more rooms arranged for the use of one or more
38 individuals living together, as in a single housekeeping unit normally having cooking, living,
39 sanitary, and sleeping facilities.

40 (b) "Dwelling unit" includes a hotel room, dormitory room, apartment, condominium,
41 sleeping room in a nursing home, or similar living unit.

42 (5) "IFC" means the edition of the International Fire Code adopted under Section
43 15A-5-103.

44 (6) "NFPA" means the edition of the National Fire Protection Association adopted
45 under Section 15A-5-103.

46 (7) "Premixed" means the state of an antifreeze and water solution that results from the
47 solution being prepared by the manufacturer with a quality control procedure that ensures that
48 the antifreeze and water solution does not separate.

49 [~~7~~] (8) "UL" means Underwriters Laboratories, Inc.

50 Section 2. Section 15A-5-202 is amended to read:

51 **15A-5-202. Amendments and additions to IFC related to administration, permits,**
52 **definitions, general, and emergency planning.**

53 (1) For IFC, Scope and Administration:

54 (a) IFC, Chapter 1, Section 105.6.16, Flammable and combustible liquids, is amended
55 to add the following section: "12. The owner of an underground tank that is out of service for
56 longer than one year shall receive a Temporary Closure Notice from the Department of
57 Environmental Quality and a copy shall be given to the AHJ."

58 (b) IFC, Chapter 1, Section 109.2, Notice of violation, is amended as follows: On line

59 three, after the words "is in violation of this code," insert in the section the phrase "or other
60 pertinent laws or ordinances".

61 (2) For IFC, Definitions:

62 (a) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification,
63 Educational Group E, Day care, is amended as follows: On line three delete the word "five"
64 and replace it with the word "four".

65 (b) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification,
66 Institutional Group I, Group I-1, is amended as follows: On line 10 add "Type I" in front of the
67 words "Assisted living facilities".

68 (c) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification,
69 Institutional Group I, Group I-2, is amended as follows:

70 (i) On line three delete the word "for" and insert the following into the sentence "on a
71 24-hour basis of more than three".

72 (ii) On line 10, after the words "Nursing homes", add the following: "both intermediate
73 nursing care and skilled nursing care facilities, ambulatory surgical centers with five or more
74 operating rooms where care is less than 24 hours, and Type II assisted living facilities. Type II
75 assisted living facilities with five or fewer persons shall be classified as a Group R-4. Type II
76 assisted living facilities with at least six and not more than 16 residents shall be classified as a
77 Group I-1 facility".

78 (d) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification,
79 Institutional Group I, Group I-4, Day care facilities, Child care facility, is amended as follows:

80 (i) On line three delete the word "five" and replace it with the word "four".

81 (ii) On line two of the exception delete the word "five" and replace it with the word
82 "four".

83 (e) IFC, Chapter 2, Section 202, General Definitions, Occupancy Classification,
84 Residential Group R, R-2, is amended to add the following: "Exception: Boarding houses
85 accommodating 10 persons or less shall be classified as Residential Group R-3."

86 (3) For IFC, General Requirements:

87 (a) IFC, Chapter 3, Section 304.1.2, Vegetation, is amended as follows: Delete line six
88 and replace it with: "the Utah Administrative Code, R652-122-200, Minimum Standards for
89 Wildland Fire Ordinance".

90 **(b)** IFC, Chapter 3, Section 310.8, Hazardous Environmental Conditions, is deleted and
91 rewritten as follows: "When the fire code official determines that hazardous environmental
92 conditions necessitate controlled use of any ignition source, including fireworks, lighters,
93 matches, and smoking materials, the ignition or use of the source in mountainous,
94 brush-covered, forest-covered, or other designated areas is prohibited except in approved areas
95 as allowed by the AHJ."

96 ~~(b)~~ **(c)** IFC, Chapter 3, Section 311.1.1, Abandoned premises, is amended as follows:
97 On line 10 delete the words "International Property Maintenance Code and the".

98 ~~(c)~~ **(d)** IFC, Chapter 3, Section 311.5, Placards, is amended as follows: On line three
99 delete the word "shall" and replace it with the word "may".

100 ~~(d)~~ **(e)** IFC, Chapter 3, Section 315.2.1, Ceiling clearance, is amended to add the
101 following: "Exception: Where storage is not directly below the sprinkler heads, storage is
102 allowed to be placed to the ceiling on wall-mounted shelves that are protected by fire sprinkler
103 heads in occupancies meeting classification as light or ordinary hazard."

104 Section 3. Section **15A-5-204** is amended to read:

105 **15A-5-204. Amendments and additions to IFC related to fire protection systems.**

106 For IFC, Fire Protection Systems:

107 (1) IFC, Chapter 9, Section 901.2, Construction documents, is amended to add the
108 following at the end of the section: "The code official has the authority to request record
109 drawings ("as built") to verify any modifications to the previously approved construction
110 documents."

111 (2) IFC, Chapter 9, Section 902.1, Definitions, RECORD DRAWINGS, is deleted and
112 rewritten as follows: "Drawings ("as built") that document all aspects of a fire protection
113 system as installed."

114 (3) IFC, Chapter 9, Section 903.2.1.2, Group A-2, is amended to add the following
115 subsection: "4. An automatic fire sprinkler system shall be provided throughout Group A-2
116 occupancies where indoor pyrotechnics are used."

117 (4) IFC, Chapter 9, Section 903.2.2, Group B ambulatory health care facilities, is
118 amended as follows: On line three delete the words "all fire areas" and replace with the word
119 "buildings".

120 (5) IFC, Chapter 9, Section 903.2.4, Group F-1, Subsection 2, is deleted and rewritten

121 as follows: "A Group F-1 fire area is located more than three stories above the lowest level of
122 fire department vehicle access."

123 (6) IFC, Chapter 9, Section 903.2.7, Group M, Subsection 2, is deleted and rewritten as
124 follows: "A Group M fire area is located more than three stories above the lowest level of fire
125 department vehicle access."

126 (7) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add the following:
127 "Exception: Detached one- and two-family dwellings and multiple single-family dwellings
128 (townhouses) constructed in accordance with the International Residential Code for one- and
129 two-family dwellings."

130 (8) IFC, Chapter 9, Section 903.2.8, Group R, is amended to add a second exception as
131 follows: "Exception: Group R-4 fire areas not more than 4,500 gross square feet and not
132 containing more than 16 residents, provided the building is equipped throughout with an
133 approved fire alarm system that is interconnected and receives its primary power from the
134 building wiring and a commercial power system."

135 (9) IFC, Chapter 9, Section 903.2.9, Group S-1, Subsection 2, is deleted and rewritten
136 as follows: "A Group S-1 fire area is located more than three stories above the lowest level of
137 fire department vehicle access."

138 (10) (a) IFC, Chapter 9, Section 903.2.10, Group S-2 enclosed parking garages, is
139 deleted and rewritten as follows: "An automatic sprinkler system shall be provided throughout
140 buildings classified as parking garages in accordance with Section 406.2 of the International
141 Building Code or where located beneath other groups."

142 (b) IFC, Chapter 9, Section 903.2.10, Group S-2 enclosed parking garages, the
143 exception is deleted and rewritten as follows: "Exception: Parking garages of less than 5,000
144 square feet (464m²) accessory to Group R-3 occupancies."

145 (c) IFC, Chapter 9, Section 903.2.10, Group S-2 enclosed parking garages, is amended
146 to add a second exception, as follows: "Exception: Open parking garages not located beneath
147 other groups if one of the following conditions are met:

- 148 1. Access is provided for fire fighting operations to within 150 feet (45,720mm) of all portions
149 of the parking garage as measured from the approved fire department vehicle access, or
150 2. Class I standpipes are installed throughout the parking garage."

151 (11) IFC, Chapter 9, Section 903.2.10.1, Commercial parking garages, is deleted and

152 rewritten as follows: "An automatic sprinkler system shall be provided throughout buildings
153 used for storage of commercial trucks or buses."

154 (12) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following subsection:

155 "903.3.1.1.2 Antifreeze Limitations. ~~[The use of antifreeze]~~ Antifreeze used in a new
156 automatic sprinkler [systems in new construction in the dwelling unit portion of an occupancy,]
157 system installed in accordance with NFPA 13~~[, is allowed up to 20 heads. The number of~~
158 ~~sprinkler heads can be expanded as permitted by the AHJ. The mixture of the antifreeze shall~~
159 ~~be limited to]~~ may not exceed a maximum concentration of ~~[40%]~~ 38% premixed propylene
160 glycol or ~~[50%]~~ 48% premixed glycerin, and the capacity of the system may not exceed 150
161 gallons. ~~[The AHJ can allow the concentration of antifreeze to be increased due to temperature~~
162 ~~concerns.]"~~

163 (13) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following subsection:

164 "903.3.1.2.2 Antifreeze Limitations. ~~[The use of antifreeze]~~ Antifreeze used in a new
165 automatic sprinkler [systems in new construction in the dwelling unit portion of an occupancy,]
166 system installed in accordance with NFPA 13R~~[, is allowed up to 20 heads. The number of~~
167 ~~sprinkler heads can be expanded as permitted by the AHJ. The mixture of the antifreeze shall~~
168 ~~be limited to]~~ may not exceed a maximum concentration of ~~[40%]~~ 38% premixed propylene
169 glycol or ~~[50%]~~ 48% premixed glycerin, and the capacity of the system may not exceed 150
170 gallons. ~~[The AHJ can allow the concentration of antifreeze to be increased due to temperature~~
171 ~~concerns.]"~~

172 (14) IFC, Chapter 9, Section 903.3.1.3 is amended by adding the following subsection:

173 "903.3.1.3.1 Antifreeze Limitations. ~~[The use of antifreeze]~~ Antifreeze used in a new
174 automatic sprinkler [systems in new construction] system installed in accordance with NFPA
175 13D ~~[is allowed up to 20 heads. The number of sprinkler heads can be expanded as permitted~~
176 ~~by the AHJ. The mixture of the antifreeze shall be limited to]~~ may not exceed a maximum
177 concentration of ~~[40%]~~ 38% premixed propylene glycol or ~~[50%]~~ 48% premixed glycerin, and
178 the capacity of the system may not exceed 150 gallons. ~~[The AHJ can allow the concentration~~
179 ~~of antifreeze to be increased due to temperature concerns.]"~~

180 (15) IFC, Chapter 9, Section 903.3.5, Water supplies, is amended as follows: On line
181 six, after the word "Code", add "and as amended in Utah's State Construction Code".

182 ~~[(16) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:~~

183 ~~"903.5.1 Antifreeze Replacement. Whenever the automatic sprinkler system protecting~~
184 ~~residences and dwelling units of mixed occupancies that use antifreeze is drained, the~~
185 ~~replacement antifreeze shall be properly mixed and tested, but shall not exceed a maximum~~
186 ~~concentration of 40% propylene glycol or a maximum concentration of 50% glycerin. The~~
187 ~~AHJ can allow the concentration of antifreeze to be increased due to temperature concerns."]~~

188 (16) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:

189 "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the
190 antifreeze solution was tested. The tag shall also indicate the type and concentration of
191 antifreeze solution by volume with which the system is filled, the date the antifreeze was
192 replaced, if applicable, the name of the contractor that tested or replaced the antifreeze solution,
193 the contractor's license number, a statement indicating if the entire system was drained and
194 replaced with antifreeze, and a warning to test the concentration of the antifreeze solutions at
195 yearly intervals."

196 (17) IFC, Chapter 9, Section 903.6, Existing Buildings, and Chapter 46, Section
197 4603.4, Sprinkler systems, are amended to add the following subsection to each section:

198 "903.6.3 Group A-2 and 4603.4.3 Group A-2. An automatic fire sprinkler system shall be
199 provided throughout existing Group A-2 occupancies where indoor pyrotechnics are used."

200 (18) IFC, Chapter 9, Section 904.11, Commercial cooking systems, is deleted and
201 rewritten as follows: "The automatic fire extinguishing system for commercial cooking systems
202 shall be of a type recognized for protection of commercial cooking equipment and exhaust
203 systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with
204 UL300 and listed and labeled for the intended application. The system shall be installed in
205 accordance with this code, its listing and the manufacturer's installation instructions. The
206 exception in Section 904.11 is not deleted and shall remain as currently written in the IFC."

207 (19) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section
208 904.11.3.1, Ventilation system, are deleted and rewritten as follows:

209 (a) "Existing automatic fire extinguishing systems used for commercial cooking that
210 use dry chemical are prohibited and shall be removed from service."

211 (b) "Existing wet chemical fire extinguishing systems used for commercial cooking
212 that are not UL300 listed and labeled are prohibited and shall be either removed or upgraded to
213 a UL300 listed and labeled system."

214 (20) IFC, Chapter 9, Section 904.11.4, Special provisions for automatic sprinkler
215 systems, is amended to add the following subsection: "904.11.4.2 Existing automatic fire
216 sprinkler systems protecting commercial cooking equipment, hood, and exhaust systems that
217 generate appreciable depth of cooking oils shall be replaced with a UL300 system that is listed
218 and labeled for the intended application."

219 (21) IFC, Chapter 9, Section 904.11.6.2, Extinguishing system service, is amended to
220 add the following: "Exception: Automatic fire extinguishing systems located in occupancies
221 where usage is limited and less than six consecutive months may be serviced annually if the
222 annual service is conducted immediately before the period of usage, and approval is received
223 from the AHJ."

224 (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 46, Section
225 4603.5, Standpipes, are deleted.

226 (23) IFC, Chapter 9, Section 907.3, Where required in existing buildings and
227 structures, is deleted, and IFC, Chapter 46, Section 4603.6, Fire alarm systems, is deleted and
228 rewritten as follows: "An approved automatic fire detection system shall be installed in
229 accordance with the provisions of this code and NFPA 72. Devices, combinations of devices,
230 appliances, and equipment shall be approved. The automatic fire detectors shall be smoke
231 detectors, except an approved alternative type of detector shall be installed in spaces such as
232 boiler rooms where, during normal operation, products of combustion are present in sufficient
233 quantity to actuate a smoke detector."

234 (24) IFC, Chapter 9, Section 907.9.5, Maintenance, inspection, and testing, is amended
235 to add the following sentences at the end of the section: "Increases in nuisance alarms shall
236 require the fire alarm system to be tested for sensitivity. Fire alarm systems that continue after
237 sensitivity testing with unwarranted nuisance alarms shall be replaced as directed by the AHJ."

238 (25) IFC, Chapter 9, Section 907.10, Carbon monoxide alarms, is added as follows:
239 "Carbon monoxide alarms shall be installed on each habitable level of a dwelling unit or
240 sleeping unit in Groups R-2, R-3, R-4, and I-1 equipped with fuel burning appliances.
241 901.10.21.1. If more than one carbon monoxide detector is required, they shall be
242 interconnected as required in IFC, Chapter 9, Section 907.2.11.3.
243 901.10.21.2. In new construction, carbon monoxide detectors shall receive their primary power
244 as required in IFC, Chapter 9, Section 907.2.11.4.

245 901.10.21.3. Upon completion of the installation, the carbon monoxide detector system will
246 meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and
247 Warning Equipment and UL2034, Standard for Single and Multiple Station Carbon Monoxide
248 Alarms."

249 Section 4. **Effective date.**

250 This bill takes effect on July 1, 2012.

Legislative Review Note
as of 11-21-11 7:00 AM

Office of Legislative Research and General Counsel