

STATE FIRE CODE AMENDMENTS

2012 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: James A. Dunnigan

Senate Sponsor: John L. Valentine

LONG TITLE

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:

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

15A-5-102. Definitions.

As used in this chapter:

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

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

31 (a) the State Fire Marshal;

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

33 (c) the local fire enforcement authority.

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

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

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

40 (5) "IFC" means the edition of the International Fire Code adopted under Section
41 15A-5-103.

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

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

47 [~~7~~] (8) "UL" means Underwriters Laboratories, Inc.

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

49 **15A-5-202. Amendments and additions to IFC related to administration, permits,**
50 **definitions, general, and emergency planning.**

51 (1) For IFC, Scope and Administration:

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

56 (b) IFC, Chapter 1, Section 109.2, Notice of violation, is amended as follows: On line
57 three, after the words "is in violation of this code," insert in the section the phrase "or other

58 pertinent laws or ordinances".

59 (2) For IFC, Definitions:

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

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

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

68 (i) On line three delete the word "for" and insert the following into the sentence "on a
69 24-hour basis of more than three".

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

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

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

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

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

84 (3) For IFC, General Requirements:

85 (a) IFC, Chapter 3, Section 304.1.2, Vegetation, is amended as follows: Delete line six

86 and replace it with: "the Utah Administrative Code, R652-122-200, Minimum Standards for
87 Wildland Fire Ordinance".

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

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

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

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

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

103 **15A-5-204. Amendments and additions to IFC related to fire protection systems.**

104 For IFC, Fire Protection Systems:

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

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

112 (3) IFC, Chapter 9, Section 903.2.1.2, Group A-2, is amended to add the following
113 subsection: "4. An automatic fire sprinkler system shall be provided throughout Group A-2

114 occupancies where indoor pyrotechnics are used."

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

118 (5) IFC, Chapter 9, Section 903.2.4, Group F-1, Subsection 2, is deleted and rewritten
119 as follows: "A Group F-1 fire area is located more than three stories above the lowest level of
120 fire department vehicle access."

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

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

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

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

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

140 (b) IFC, Chapter 9, Section 903.2.10, Group S-2 enclosed parking garages, the
141 exception is deleted and rewritten as follows: "Exception: Parking garages of less than 5,000

142 square feet (464m²) accessory to Group R-3 occupancies."

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

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

149 (11) IFC, Chapter 9, Section 903.2.10.1, Commercial parking garages, is deleted and
150 rewritten as follows: "An automatic sprinkler system shall be provided throughout buildings
151 used for storage of commercial trucks or buses."

152 (12) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following subsection:
153 "903.3.1.1.2 Antifreeze Limitations. [~~The use of antifreeze~~] Antifreeze used in a new
154 automatic sprinkler [systems in new construction in the dwelling unit portion of an occupancy,]
155 system installed in accordance with NFPA 13[~~, is allowed up to 20 heads. The number of~~
156 ~~sprinkler heads can be expanded as permitted by the AHJ. The mixture of the antifreeze shall~~
157 ~~be limited to~~] may not exceed a maximum concentration of [~~40%~~] 38% premixed propylene
158 glycol or [~~50%~~] 48% premixed glycerin, and the capacity of the system may not exceed 150
159 gallons. [~~The AHJ can allow the concentration of antifreeze to be increased due to temperature~~
160 ~~concerns.~~]"

161 (13) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following subsection:
162 "903.3.1.2.2 Antifreeze Limitations. [~~The use of antifreeze~~] Antifreeze used in a new
163 automatic sprinkler [systems in new construction in the dwelling unit portion of an occupancy,]
164 system installed in accordance with NFPA 13R[~~, is allowed up to 20 heads. The number of~~
165 ~~sprinkler heads can be expanded as permitted by the AHJ. The mixture of the antifreeze shall~~
166 ~~be limited to~~] may not exceed a maximum concentration of [~~40%~~] 38% premixed propylene
167 glycol or [~~50%~~] 48% premixed glycerin, and the capacity of the system may not exceed 150
168 gallons. [~~The AHJ can allow the concentration of antifreeze to be increased due to temperature~~
169 ~~concerns.~~]"

170 (14) IFC, Chapter 9, Section 903.3.1.3 is amended by adding the following subsection:
171 "903.3.1.3.1 Antifreeze Limitations. ~~[The use of antifreeze]~~ Antifreeze used in a new
172 automatic sprinkler [systems in new construction] system installed in accordance with NFPA
173 13D ~~[is allowed up to 20 heads. The number of sprinkler heads can be expanded as permitted~~
174 ~~by the AHJ. The mixture of the antifreeze shall be limited to]~~ may not exceed a maximum
175 concentration of [40%] 38% premixed propylene glycol or [50%] 48% premixed glycerin, and
176 the capacity of the system may not exceed 150 gallons. ~~[The AHJ can allow the concentration~~
177 ~~of antifreeze to be increased due to temperature concerns.]"~~

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

180 ~~[(16) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:~~
181 ~~"903.5.1 Antifreeze Replacement. Whenever the automatic sprinkler system protecting~~
182 ~~residences and dwelling units of mixed occupancies that use antifreeze is drained, the~~
183 ~~replacement antifreeze shall be properly mixed and tested, but shall not exceed a maximum~~
184 ~~concentration of 40% propylene glycol or a maximum concentration of 50% glycerin. The~~
185 ~~AHJ can allow the concentration of antifreeze to be increased due to temperature concerns."]~~

186 (16) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:
187 "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the
188 antifreeze solution was tested. The tag shall also indicate the type and concentration of
189 antifreeze solution by volume with which the system is filled, the name of the contractor that
190 tested the antifreeze solution, the contractor's license number, and a warning to test the
191 concentration of the antifreeze solutions at yearly intervals."

192 (17) IFC, Chapter 9, Section 903.6, Existing Buildings, and Chapter 46, Section
193 4603.4, Sprinkler systems, are amended to add the following subsection to each section:
194 "903.6.3 Group A-2 and 4603.4.3 Group A-2. An automatic fire sprinkler system shall be
195 provided throughout existing Group A-2 occupancies where indoor pyrotechnics are used."

196 (18) IFC, Chapter 9, Section 904.11, Commercial cooking systems, is deleted and
197 rewritten as follows: "The automatic fire extinguishing system for commercial cooking systems

198 shall be of a type recognized for protection of commercial cooking equipment and exhaust
199 systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with
200 UL300 and listed and labeled for the intended application. The system shall be installed in
201 accordance with this code, its listing and the manufacturer's installation instructions. The
202 exception in Section 904.11 is not deleted and shall remain as currently written in the IFC."

203 (19) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section
204 904.11.3.1, Ventilation system, are deleted and rewritten as follows:

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

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

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

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

220 (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 46, Section
221 4603.5, Standpipes, are deleted.

222 (23) IFC, Chapter 9, Section 907.3, Where required in existing buildings and
223 structures, is deleted, and IFC, Chapter 46, Section 4603.6, Fire alarm systems, is deleted and
224 rewritten as follows: "An approved automatic fire detection system shall be installed in
225 accordance with the provisions of this code and NFPA 72. Devices, combinations of devices,

226 appliances, and equipment shall be approved. The automatic fire detectors shall be smoke
227 detectors, except an approved alternative type of detector shall be installed in spaces such as
228 boiler rooms where, during normal operation, products of combustion are present in sufficient
229 quantity to actuate a smoke detector."

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

234 (25) IFC, Chapter 9, Section 907.10, Carbon monoxide alarms, is added as follows:

235 "Carbon monoxide alarms shall be installed on each habitable level of a dwelling unit or
236 sleeping unit in Groups R-2, R-3, R-4, and I-1 equipped with fuel burning appliances.

237 901.10.21.1. If more than one carbon monoxide detector is required, they shall be
238 interconnected as required in IFC, Chapter 9, Section 907.2.11.3.

239 901.10.21.2. In new construction, carbon monoxide detectors shall receive their primary power
240 as required in IFC, Chapter 9, Section 907.2.11.4.

241 901.10.21.3. Upon completion of the installation, the carbon monoxide detector system will
242 meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and
243 Warning Equipment and UL2034, Standard for Single and Multiple Station Carbon Monoxide
244 Alarms."

245 Section 4. **Effective date.**

246 This bill takes effect on July 1, 2012.