

Senator Curtis S. Bramble proposes the following substitute bill:

STATE FIRE CODE AMENDMENTS

2014 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: James A. Dunnigan

Senate Sponsor: Curtis S. Bramble

LONG TITLE

General Description:

This bill amends the State Construction and Fire Codes Act.

Highlighted Provisions:

This bill:

- ▶ adds an exception to the requirement that an automatic sprinkler system be installed in certain fire areas; and
- ▶ modifies provisions related to hazardous and environmental conditions.

Money Appropriated in this Bill:

None

Other Special Clauses:

This bill takes effect on July 1, 2014.

Utah Code Sections Affected:

AMENDS:

15A-3-104, as last amended by Laws of Utah 2013, Chapter 297

15A-5-202.5, as enacted by Laws of Utah 2013, Chapter 199

15A-5-204, as last amended by Laws of Utah 2013, Chapter 199

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



26 Section 1. Section **15A-3-104** is amended to read:

27 **15A-3-104. Amendments to Chapters 7 through 9 of IBC.**

28 (1) IBC, Section (F)901.8, is deleted and replaced with the following: "(F)901.8 Pump
29 and riser room size. Fire pump and automatic sprinkler system riser rooms shall be designed
30 with adequate space for all installed equipment necessary for the installation and to provide
31 sufficient working space around the stationary equipment. Clearances around equipment shall
32 be in accordance with manufacturer requirements and not less than the following minimum
33 elements:

34 901.8.1 A minimum clear and unobstructed distance of 12-inches shall be provided from the
35 installed equipment to the elements of permanent construction.

36 901.8.2 A minimum clear and unobstructed distance of 12-inches shall be provided between
37 all other installed equipment and appliances.

38 901.8.3 A clear and unobstructed width of 36-inches shall be provided in front of all installed
39 equipment and appliances, to allow for inspection, service, repair or replacement without
40 removing such elements of permanent construction or disabling the function of a required
41 fire-resistance-rated assembly.

42 901.8.4 Automatic sprinkler system riser rooms shall be provided with a clear and
43 unobstructed passageway to the riser room of not less than 36-inches, and openings into the
44 room shall be clear and unobstructed, with doors swinging in the outward direction from the
45 room and the opening providing a clear width of not less than 34-inches and a clear height of
46 the door opening shall not be less than 80-inches.

47 901.8.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the
48 fire pump room of not less than 72-inches, and openings into the room shall be clear,
49 unobstructed and large enough to allow for the removal of the largest piece of equipment, with
50 doors swinging in the outward direction from the room and the opening providing a clear width
51 of not less than 68-inches and a clear height of the door opening shall not be less than
52 80-inches."

53 (2) In IBC, Section (F)903.2.2, the words "the entire floor" are deleted and replaced
54 with "a building" and the last paragraph is deleted.

55 (3) IBC, Section (F)903.2.4, condition 2, is deleted and replaced with the following: "2.
56 A Group F-1 fire area is located more than three stories above the lowest level of fire

57 department vehicle access."

58 (4) IBC, Section (F)903.2.7, condition 2, is deleted and replaced with the following: "2.
59 A Group M fire area is located more than three stories above the lowest level of fire department
60 vehicle access."

61 (5) IBC, Sections (F)903.2.8, (F)903.2.8.1, and (F)903.2.8.2, are deleted and replaced
62 with the following: "(F)903.2.8 Group R. An automatic sprinkler system installed in
63 accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire
64 area.

65 Exceptions:

66 1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses)
67 constructed in accordance with the International Residential Code For One- and Two-Family
68 Dwellings.

69 2. Single story Group R-1 occupancies with fire areas not more than 2,000 square feet that
70 contain no installed plumbing or heating, where no cooking occurs, and constructed of Type
71 I-A, I-B, II-A, or II-B construction.

72 [~~2.~~] 3. Group R-4 fire areas not more than 4,500 gross square feet and not containing more
73 than 16 residents, provided the building is equipped throughout with an approved fire alarm
74 system that is interconnected and receives its primary power from the building wiring and a
75 commercial power system."

76 (6) IBC, Section (F)903.2.9, condition 2, is deleted and replaced with the following: "2.
77 A Group S-1 fire area is located more than three stories above the lowest level of fire
78 department vehicle access."

79 (7) IBC, Section (F)904.11, is deleted and replaced with the following: "(F)904.11
80 Commercial cooking systems. The automatic fire-extinguishing system for commercial
81 cooking systems shall be of a type recognized for protection of commercial cooking equipment
82 and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in
83 accordance with UL 300 and listed and labeled for the intended application. The system shall
84 be installed in accordance with this code, its listing and the manufacturer's installation
85 instructions.

86 Exception: Factory-built commercial cooking recirculating systems that are tested in
87 accordance with UL 710B and listed, labeled, and installed in accordance with Section 304.1 of

88 the International Mechanical Code."

89 (8) IBC, Sections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are
90 deleted.

91 (9) IBC, Section (F)907.2.3 Group E:

92 (a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system
93 that initiates the occupant notification system in accordance with Section (F)907.5 and installed
94 in accordance with Section (F)907.6 shall be installed in Group E occupancies."

95 (b) In Exception number 3, starting on line five, the words "emergency voice/alarm
96 communication system" are deleted and replaced with "occupant notification system".

97 (10) In IBC, Section (F)908.7, the first sentence is deleted and replaced as follows:
98 "Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies"; the exceptions are deleted and the
99 following sentence is added after the first sentence: "A minimum of one carbon monoxide
100 alarm shall be installed on each habitable level."

101 (11) In IBC, Section (F)908.7, the following new subsections are added:

102 "(F)908.7.1 Interconnection. Where more than one carbon monoxide alarm is required to be
103 installed within Group R or I-1 occupancies, the carbon monoxide alarms shall be
104 interconnected in such a manner that the activation of one alarm will activate all of the alarms.
105 Physical interconnection of carbon monoxide alarms shall not be required where listed wireless
106 alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be
107 clearly audible in all bedrooms over background noise levels with all intervening doors closed.
108 (F)908.7.2 Power source. In new construction, required carbon monoxide alarms shall receive
109 their primary power from the building wiring where such wiring is served from a commercial
110 source and shall be equipped with a battery backup. Carbon monoxide alarms with integral
111 strobes that are not equipped with battery backup shall be connected to an emergency electrical
112 system. Carbon monoxide alarms shall emit a signal when the batteries are low. Wiring shall
113 be permanent and without a disconnecting switch other than as required for overcurrent
114 protection.

115 Exception: Carbon monoxide alarms are not required to be equipped with battery backup where
116 they are connected to an emergency electrical system."

117 (12) IBC, Section (F)908.7.1, is renumbered to 908.7.3.

118 Section 2. Section **15A-5-202.5** is amended to read:

119 **15A-5-202.5. Amendments and additions to Chapters 3 and 4 of IFC.**

120 (1) For IFC, Chapter 3, General Requirements:

121 (a) IFC, Chapter 3, Section 304.1.2, Vegetation, is amended as follows: Delete line six
122 and replace it with: "the Utah Administrative Code, R652-122-200, Minimum Standards for
123 Wildland Fire Ordinance".124 (b) IFC, Chapter 3, Section 308.1.2, Throwing or Placing Sources of Ignition, is
125 deleted and rewritten as follows: "No person shall throw or place, or cause to be thrown or
126 placed, a lighted match, cigar, cigarette, matches, lighters, or other flaming or glowing
127 substance or object on any surface or article where it can cause an unwanted fire."128 (c) IFC, Chapter 3, Section 310.8, Hazardous and Environmental Conditions, is deleted
129 and rewritten as follows: "When the fire code official determines that hazardous environmental
130 conditions necessitate controlled use of any ignition source, including fireworks, lighters,
131 matches, sky lanterns, and smoking materials, any of the following may occur:132 [(i)] 1. If the hazardous environmental conditions exist in a municipality, the legislative
133 body of [a] the municipality [~~within which the hazardous environmental conditions exist~~] may
134 prohibit [~~only~~] the ignition or use of [~~the~~] an ignition source in mountainous, brush-covered, or
135 forest-covered areas or the wildland urban interface area, which means the line, area, or zone
136 where structures or other human development meet or intermingle with undeveloped wildland
137 or land being used for an agricultural purpose[~~;~~and].138 [(ii) where] 2. Except as provided in paragraph 3, if the hazardous environmental
139 conditions exist in an unincorporated [~~areas that meet the description in Subsection (1)(c)(i)]~~
140 area, the state forester may prohibit the ignition or use of [~~the~~] an ignition source in all or part
141 of [~~theses~~] the areas described in paragraph 1 that are within the unincorporated area, after
142 consulting with the county fire code official [~~having~~] who has jurisdiction over that area.[~~"~~]143 3. If the hazardous environmental conditions exist in a township created under Section
144 17-27a-306 that is in a county of the first class, the county legislative body may prohibit the
145 ignition or use of an ignition source in all or part of the areas described in paragraph 1 that are
146 within the township."147 (d) IFC, Chapter 3, Section 311.1.1, Abandoned Premises, is amended as follows: On
148 line 10 delete the words "International Property Maintenance Code and the".

149 (e) IFC, Chapter 3, Section 311.5, Placards, is amended as follows: On line three delete

150 the word "shall" and replace it with the word "may".

151 (f) IFC, Chapter 3, Section 315.2.1, Ceiling Clearance, is amended to add the
152 following: "Exception: Where storage is not directly below the sprinkler heads, storage is
153 allowed to be placed to the ceiling on wall-mounted shelves that are protected by fire sprinkler
154 heads in occupancies meeting classification as light or ordinary hazard."

155 (2) IFC, Chapter 4, Emergency Planning and Preparedness:

156 (a) IFC, Chapter 4, Section 404.2, Where required, Subsection 8, is amended as
157 follows: After the word "buildings" add "to include sororities and fraternity houses".

158 (b) IFC, Chapter 4, Section 405.2, Table 405.2, is amended to add the following
159 footnotes:

160 (i) "e. Secondary schools in Group E occupancies shall have an emergency evacuation
161 drill for fire conducted at least every two months, to a total of four emergency evacuation drills
162 during the nine-month school year. The first emergency evacuation drill for fire shall be
163 conducted within 10 school days after the beginning of classes, and the third emergency
164 evacuation drill for fire shall be conducted 10 school days after the beginning of the next
165 calendar year. The second and fourth emergency evacuation drills may be substituted by a
166 security or safety drill to include shelter in place, earthquake drill, or lock down for violence."

167 (ii) "f. In Group E occupancies, excluding secondary schools, if the AHJ approves, the
168 monthly required emergency evacuation drill can be substituted by a security or safety drill to
169 include shelter in place, earthquake drill, or lock down for violence. The routine emergency
170 evacuation drill for fire must be conducted at least every other evacuation drill."

171 (iii) "g. A-3 occupancies in academic buildings of institutions of higher learning are
172 required to have one emergency evacuation drill per year, provided the following conditions are
173 met:

174 (A) The building has a fire alarm system in accordance with Section 907.2.

175 (B) The rooms classified as assembly shall have fire safety floor plans as required in
176 Section 404.3.2(4) posted.

177 (C) The building is not classified a high-rise building.

178 (D) The building does not contain hazardous materials over the allowable quantities by
179 code."

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

181 **15A-5-204. Amendments and additions to IFC related to fire protection systems.**

182 For IFC, Fire Protection Systems:

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

187 (2) IFC, Chapter 9, Section 901.4.6, Pump and Riser Room Size, is deleted and
188 replaced with the following: "Pump and Riser Room Size. Fire pump and automatic sprinkler
189 system riser rooms shall be designed with adequate space for all installed equipment necessary
190 for the installation and to provide sufficient working space around the stationary equipment.
191 Clearances around equipment shall be in accordance with manufacturer requirements and not
192 less than the following minimum elements:

193 901.4.6.1 A minimum clear and unobstructed distance of 12 inches shall be provided
194 from the installed equipment to the elements of permanent construction.

195 901.4.6.2 A minimum clear and unobstructed distance of 12 inches shall be provided
196 between all other installed equipment and appliances.

197 901.4.6.3 A clear and unobstructed width of 36 inches shall be provided in front of all
198 installed equipment and appliances, to allow for inspection, service, repair or replacement
199 without removing such elements of permanent construction or disabling the function of a
200 required fire-resistance-rated assembly.

201 901.4.6.4 Automatic sprinkler system riser rooms shall be provided with a clear and
202 unobstructed passageway to the riser room of not less than 36 inches, and openings into the
203 room shall be clear and unobstructed, with doors swinging in the outward direction from the
204 room and the opening providing a clear width of not less than 34 inches and a clear height of
205 the door opening shall not be less than 80 inches.

206 901.4.6.5 Fire pump rooms shall be provided with a clear and unobstructed
207 passageway to the fire pump room of not less than 72 inches, and openings into the room shall
208 be clear, unobstructed and large enough to allow for the removal of the largest piece of
209 equipment, with doors swinging in the outward direction from the room and the opening
210 providing a clear width of not less than 68 inches and a clear height of the door opening shall
211 not be less than 80 inches."

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

215 (4) IFC, Chapter 9, Section 903.2.2, Ambulatory Health Care Facilities, is amended as
216 follows: On line two delete the words "all fire areas floor" and replace with the word
217 "buildings" and delete the last paragraph.

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

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

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

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

233 (9) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add a third exception as
234 follows: "Exception: Single story group R-1 occupancies with fire areas not more than 2,000
235 square feet that contain no installed plumbing or heating, where no cooking occurs, and
236 constructed of Type I-A, I-B, II-A, or II-B construction."

237 [~~9~~] (10) IFC, Chapter 9, Section 903.2.9, Group S-1, Subsection 2, is deleted and
238 rewritten as follows: "A Group S-1 fire area is located more than three stories above the lowest
239 level of fire department vehicle access."

240 [~~10~~] (11) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following
241 subsection: "903.3.1.1.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler
242 system installed in accordance with NFPA 13 may not exceed a maximum concentration of

243 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may
244 not exceed 150 gallons."

245 [~~(11)~~] (12) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following
246 subsection: "903.3.1.2.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler
247 system installed in accordance with NFPA 13R may not exceed a maximum concentration of
248 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may
249 not exceed 150 gallons."

250 [~~(12)~~] (13) IFC, Chapter 9, Section 903.3.1.3 is amended by adding the following
251 subsection: "903.3.1.3.1 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler
252 system installed in accordance with NFPA 13D may not exceed a maximum concentration of
253 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may
254 not exceed 150 gallons."

255 [~~(13)~~] (14) IFC, Chapter 9, Section 903.3.5, Water supplies, is amended as follows: On
256 line six, after the word "Code", add "and as amended in Utah's State Construction Code".

257 [~~(14)~~] (15) IFC, Chapter 9, Section 903.5 is amended to add the following subsection:
258 "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the
259 antifreeze solution was tested. The tag shall also indicate the type and concentration of
260 antifreeze solution by volume with which the system is filled, the name of the contractor that
261 tested the antifreeze solution, the contractor's license number, and a warning to test the
262 concentration of the antifreeze solutions at yearly intervals."

263 [~~(15)~~] (16) IFC, Chapter 9, Section 904.11, Commercial cooking systems, is deleted
264 and rewritten as follows: "The automatic fire extinguishing system for commercial cooking
265 systems shall be of a type recognized for protection of commercial cooking equipment and
266 exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in accordance
267 with UL300 and listed and labeled for the intended application. The system shall be installed
268 in accordance with this code, its listing and the manufacturer's installation instructions. The
269 exception in Section 904.11 is not deleted and shall remain as currently written in the IFC."

270 [~~(16)~~] (17) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section
271 904.11.3.1, Ventilation system, are deleted and rewritten as follows:

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

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

277 [~~(17)~~] (18) IFC, Chapter 9, Section 904.11.4, Special provisions for automatic sprinkler
278 systems, is amended to add the following subsection: "904.11.4.2 Existing automatic fire
279 sprinkler systems protecting commercial cooking equipment, hood, and exhaust systems that
280 generate appreciable depth of cooking oils shall be replaced with a UL300 system that is listed
281 and labeled for the intended application."

282 [~~(18)~~] (19) IFC, Chapter 9, Section 904.11.6.2, Extinguishing system service, is
283 amended to add the following: "Exception: Automatic fire extinguishing systems located in
284 occupancies where usage is limited and less than six consecutive months may be serviced
285 annually if the annual service is conducted immediately before the period of usage, and
286 approval is received from the AHJ."

287 [~~(19)~~] (20) IFC, Chapter 9, Section 905.3.9 is a new subsection as follows: "Open
288 Parking Garages. Open parking garages shall be equipped with an approved Class I manual
289 standpipe system when fire department access is not provided for firefighting operations to
290 within 150 feet of all portions of the open parking garage as measured from the approved fire
291 department vehicle access. Class I manual standpipe shall be accessible throughout the parking
292 garage such that all portions of the parking structure are protected within 150 feet of a hose
293 connection.

294 Exception: Open parking garages equipped throughout with an automatic sprinkler
295 system in accordance with Section 903.3.1.1."

296 [~~(20)~~] (21) IFC, Chapter 9, Section 905.8, Dry Standpipes, Exception is deleted and
297 rewritten as follows: "Where subject to freezing conditions and approved by the fire code
298 official."

299 [~~(21)~~] (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 11,
300 Section 1103.6, Standpipes, are deleted.

301 [~~(22)~~] (23) In IFC, Chapter 9, Section 906.1, Where Required, the exception under
302 paragraph 1 is deleted and rewritten to read: "Exception: In new and existing Group A, B, and
303 E occupancies equipped with quick response sprinklers, portable fire extinguishers shall be
304 required only in locations specified in items 2 through 6.

305 [~~(23)~~] (24) IFC, Chapter 9, Section 907.2.3 Group E:

306 (a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system
307 that initiates the occupant notification system in accordance with Section 907.5 and installed in
308 accordance with Section 907.6 shall be installed in Group E occupancies."

309 (b) Exception number 3, on line five, delete the words, "emergency voice/alarm
310 communication system" and replace with "occupant notification system."

311 [~~(24)~~] (25) IFC, Chapter 9, 907.8, Inspection, testing, and maintenance, is amended to
312 add the following sentences at the end of the section: "Increases in nuisance alarms shall
313 require the fire alarm system to be tested for sensitivity. Fire alarm systems that continue after
314 sensitivity testing with unwarranted nuisance alarms shall be replaced as directed by the AHJ."

315 [~~(25)~~] (26) IFC, Chapter 9, Section 908.7, Carbon Monoxide Alarms, is deleted and
316 rewritten as follows: "Carbon monoxide alarms shall be installed on each habitable level of a
317 dwelling unit or sleeping unit in Groups R-1, R-2, R-3, R-4, I-1, and I-4 equipped with fuel
318 burning appliances.

319 908.7.1 If more than one carbon monoxide detector is required, they shall be
320 interconnected as required in IFC, Chapter 9, Section 907.2.11.3.

321 908.7.2 In new construction, a carbon monoxide detector shall receive its primary
322 power as required under IFC, Chapter 9, Section 907.2.11.4.

323 908.7.3 Upon completion of the installation, the carbon monoxide detector system will
324 meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection and
325 Warning Equipment and UL2034, Standard for Single and Multiple Carbon Monoxide Alarms.

326 [~~(26)~~] (27) IFC Section 908.7.1 is renumbered to 908.7.4.

327 Section 4. **Effective date.**

328 This bill takes effect on July 1, 2014.