

FIRE CODE AMENDMENTS

2015 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Curtis S. Bramble

House Sponsor: James A. Dunnigan

LONG TITLE

General Description:

This bill modifies provisions of the State Fire Code relating to carbon monoxide detection.

Highlighted Provisions:

This bill:

- ▶ modifies references to certain standards established by Underwriters Laboratories, Inc. that relate to carbon monoxide detection systems.

Money Appropriated in this Bill:

None

Other Special Clauses:

None

Utah Code Sections Affected:

AMENDS:

15A-5-204, as last amended by Laws of Utah 2014, Chapters 74 and 243

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

Section 1. Section **15A-5-204** is amended to read:

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

For IFC, Fire Protection Systems:

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

30 documents."

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

37 901.4.6.1 A minimum clear and unobstructed distance of 12 inches shall be provided
38 from the installed equipment to the elements of permanent construction.

39 901.4.6.2 A minimum clear and unobstructed distance of 12 inches shall be provided
40 between all other installed equipment and appliances.

41 901.4.6.3 A clear and unobstructed width of 36 inches shall be provided in front of all
42 installed equipment and appliances, to allow for inspection, service, repair or replacement
43 without removing such elements of permanent construction or disabling the function of a
44 required fire-resistance-rated assembly.

45 901.4.6.4 Automatic sprinkler system riser rooms shall be provided with a clear and
46 unobstructed passageway to the riser room of not less than 36 inches, and openings into the
47 room shall be clear and unobstructed, with doors swinging in the outward direction from the
48 room and the opening providing a clear width of not less than 34 inches and a clear height of
49 the door opening shall not be less than 80 inches.

50 901.4.6.5 Fire pump rooms shall be provided with a clear and unobstructed
51 passageway to the fire pump room of not less than 72 inches, and openings into the room shall
52 be clear, unobstructed and large enough to allow for the removal of the largest piece of
53 equipment, with doors swinging in the outward direction from the room and the opening
54 providing a clear width of not less than 68 inches and a clear height of the door opening shall
55 not be less than 80 inches."

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

58 occupancies where indoor pyrotechnics are used."

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

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

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

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

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

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

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

84 (11) IFC, Chapter 9, Section 903.3.1.1 is amended by adding the following subsection:
85 "903.3.1.1.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system

86 installed in accordance with NFPA 13 may not exceed a maximum concentration of 38%
87 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not
88 exceed 150 gallons."

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

90 "903.3.1.2.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system
91 installed in accordance with NFPA 13R may not exceed a maximum concentration of 38%
92 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not
93 exceed 150 gallons."

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

95 "903.3.1.3.1 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler system
96 installed in accordance with NFPA 13D may not exceed a maximum concentration of 38%
97 premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may not
98 exceed 150 gallons."

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

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

102 "903.5.1 Tag and Information. A tag shall be attached to the riser indicating the date the
103 antifreeze solution was tested. The tag shall also indicate the type and concentration of
104 antifreeze solution by volume with which the system is filled, the name of the contractor that
105 tested the antifreeze solution, the contractor's license number, and a warning to test the
106 concentration of the antifreeze solutions at yearly intervals."

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

114 (17) IFC, Chapter 9, Section 904.11.3, Carbon dioxide systems, and Section
115 904.11.3.1, Ventilation system, are deleted and rewritten as follows:

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

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

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

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

131 (20) IFC, Chapter 9, Section 905.3.9 is a new subsection as follows: "Open Parking
132 Garages. Open parking garages shall be equipped with an approved Class I manual standpipe
133 system when fire department access is not provided for firefighting operations to within 150
134 feet of all portions of the open parking garage as measured from the approved fire department
135 vehicle access. Class I manual standpipe shall be accessible throughout the parking garage
136 such that all portions of the parking structure are protected within 150 feet of a hose
137 connection.

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

140 (21) IFC, Chapter 9, Section 905.8, Dry Standpipes, Exception is deleted and rewritten
141 as follows: "Where subject to freezing conditions and approved by the fire code official."

142 (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 11, Section
143 1103.6, Standpipes, are deleted.

144 (23) In IFC, Chapter 9, Section 906.1, Where Required, the exception under paragraph
145 1 is deleted and rewritten to read: "Exception: In new and existing Group A, B, and E
146 occupancies equipped with quick response sprinklers, portable fire extinguishers shall be
147 required only in locations specified in items 2 through 6.

148 (24) IFC, Chapter 9, Section 907.2.3 Group E:

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

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

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

158 (26) IFC, Chapter 9, Section 908.7, Carbon Monoxide Alarms, is deleted and rewritten
159 as follows:

160 "908.7 Carbon Monoxide Detection.

161 908.7.1 Groups R-1, R-2, R-3, R-4, I-1, and I-4. Carbon monoxide detection shall be
162 installed on each habitable level of a dwelling unit or a sleeping unit in Groups R-1, R-2, R-3,
163 R-4, I-1, and I-4 occupancies that are equipped with a fuel-burning appliance.

164 908.7.1.1 If more than one carbon monoxide detector is required, the carbon monoxide
165 detectors shall be interconnected as required in IFC, Chapter 9, Section 907.2.11.3.

166 908.7.1.2 In new construction, a carbon monoxide detector shall receive its primary
167 power as required under IFC, Chapter 9, Section 907.2.11.4.

168 908.7.1.3 Upon completion of the installation, a carbon monoxide detector system
169 shall meet the requirements listed in NFPA 720, Installation of Carbon Monoxide Detection

170 and Warning Equipment and [~~UL 2034, Standard for Single and Multiple Carbon Monoxide~~
171 ~~Alarms~~] UL 2075, Standard for Gas and Vapor Detectors and Sensors.

172 908.7.2 Group E. A carbon monoxide detection system shall be installed in new
173 buildings that contain Group E occupancies in accordance with IFC, Chapter 9, Sections
174 908.7.2.1 through 908.7.2.6. A carbon monoxide detection system shall be installed in existing
175 buildings that contain Group E occupancies in accordance with IFC, Chapter 11, Section
176 1103.9.

177 908.7.2.1 Where required. In Group E occupancies, a carbon monoxide detection
178 system shall be provided where a fuel-burning appliance, a fuel-burning fireplace, or a
179 fuel-burning forced air furnace is present.

180 908.7.2.2 Detection equipment. Each carbon monoxide detection system shall be
181 installed in accordance with NFPA 720 and the manufacturer's instructions, and be listed as
182 complying with [~~UL 2034 and~~] UL 2075.

183 908.7.2.3 Locations. Each carbon monoxide detection system shall be installed in the
184 locations specified in NFPA 720.

185 908.7.2.4 Combination detectors. A combination carbon monoxide/smoke detector is
186 an acceptable alternative to a carbon monoxide detection system if the combination carbon
187 monoxide/smoke detector is listed in accordance with UL 2075 and UL 268.

188 908.7.2.5 Power source. Each carbon monoxide detection system shall receive primary
189 power from the building wiring if the wiring is served from a commercial source. If primary
190 power is interrupted, each carbon monoxide detection system shall receive power from a
191 battery. Wiring shall be permanent and without a disconnecting switch other than that required
192 for over-current protection.

193 908.7.2.6 Maintenance. Each carbon monoxide detection system shall be maintained
194 in accordance with NFPA 720. A carbon monoxide detection system that becomes inoperable
195 or begins to produce end-of-life signals shall be replaced."

196 (27) IFC Section 908.7.1 is renumbered to 908.7.3.