| <b>Enrolled Copy</b> | H.B. 24    |
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|                      | 11,2,4 = 1 |

| 1                               | STATE FIRE CODE AMENDMENTS   |  |  |  |  |  |
|---------------------------------|--|--|--|--|--|--|
| 2                               | 2014 GENERAL SESSION   |  |  |  |  |  |
| 3                               | STATE OF UTAH  |  |  |  |  |  |
| 4                               | Chief Sponsor: James A. Dunnigan   |  |  |  |  |  |
| 5                               | Senate Sponsor: Curtis S. Bramble  |  |  |  |  |  |
| 6<br>7                          | LONG TITLE   |  |  |  |  |  |
| 8                               | General Description:   |  |  |  |  |  |
| 9                               | This bill amends the State Construction and Fire Codes Act.                                |  |  |  |  |  |
| 10                              | Highlighted Provisions:  |  |  |  |  |  |
| 11                              | This bill:   |  |  |  |  |  |
| 12                              | • adds an exception to the requirement that an automatic sprinkler system be installed     |  |  |  |  |  |
| 13                              | in certain fire areas; and   |  |  |  |  |  |
| 14                              | <ul> <li>modifies provisions related to hazardous and environmental conditions.</li> </ul> |  |  |  |  |  |
| 15                              | Money Appropriated in this Bill:   |  |  |  |  |  |
| 16                              | None   |  |  |  |  |  |
| 17                              | Other Special Clauses:   |  |  |  |  |  |
| 18                              | This bill takes effect on July 1, 2014.  |  |  |  |  |  |
| 19                              | <b>Utah Code Sections Affected:</b>  |  |  |  |  |  |
| 20                              | AMENDS:  |  |  |  |  |  |
| 21                              | 15A-3-104, as last amended by Laws of Utah 2013, Chapter 297                               |  |  |  |  |  |
| 22                              | 15A-5-202.5, as enacted by Laws of Utah 2013, Chapter 199                                  |  |  |  |  |  |
| <ul><li>23</li><li>24</li></ul> | 15A-5-204, as last amended by Laws of Utah 2013, Chapter 199                               |  |  |  |  |  |
| 25                              | Be it enacted by the Legislature of the state of Utah:                                     |  |  |  |  |  |
| 26                              | Section 1. Section <b>15A-3-104</b> 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      |  |  |  |  |  |

and riser room size. Fire pump and automatic sprinkler system riser rooms shall be designed

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
- 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
- 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
- room shall be clear and unobstructed, with doors swinging in the outward direction from the
- 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
- doors swinging in the outward direction from the room and the opening providing a clear width
- 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
- 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.
- 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.

- A Group M fire area is located more than three stories above the lowest level of fire department 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
- with the following: "(F)903.2.8 Group R. An automatic sprinkler system installed in
- accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire
- 64 area.
- 65 Exceptions:
- 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
- than 16 residents, provided the building is equipped throughout with an approved fire alarm
- 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.
- 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
- cooking systems shall be of a type recognized for protection of commercial cooking equipment
- and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in
- accordance with UL 300 and listed and labeled for the intended application. The system shall
- be installed in accordance with this code, its listing and the manufacturer's installation
- 85 instructions.

Exception: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and listed, labeled, and installed in accordance with Section 304.1 of the International Mechanical Code."

- (8) IBC, Sections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are deleted.
  - (9) IBC, Section (F)907.2.3 Group E:

- (a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system that initiates the occupant notification system in accordance with Section (F)907.5 and installed in accordance with Section (F)907.6 shall be installed in Group E occupancies."
- (b) In Exception number 3, starting on line five, the words "emergency voice/alarm communication system" are deleted and replaced with "occupant notification system".
- (10) In IBC, Section (F)908.7, the first sentence is deleted and replaced as follows: "Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies"; the exceptions are deleted and the following sentence is added after the first sentence: "A minimum of one carbon monoxide alarm shall be installed on each habitable level."
- (11) In IBC, Section (F)908.7, the following new subsections are added:

  "(F)908.7.1 Interconnection. Where more than one carbon monoxide alarm is required to be installed within Group R or I-1 occupancies, the carbon monoxide alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. (F)908.7.2 Power source. In new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Carbon monoxide alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Carbon monoxide alarms shall emit a signal when the batteries are low. Wiring shall 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 they are connected to an emergency electrical system." 116 117 (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: 15A-5-202.5. Amendments and additions to Chapters 3 and 4 of IFC. 119 120 (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". (b) IFC, Chapter 3, Section 308.1.2, Throwing or Placing Sources of Ignition, is 124 deleted and rewritten as follows: "No person shall throw or place, or cause to be thrown or 125 126 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, matches, sky lanterns, and smoking materials, any of the following may occur: 131 132 [(i)] 1. If the hazardous environmental conditions exist in a municipality, the legislative body of [a] the municipality [within which the hazardous environmental conditions exist] may 133 134 prohibit [only] the ignition or use of [the] an ignition source in mountainous, brush-covered, or forest-covered areas or the wildland urban interface area, which means the line, area, or zone 135 136 where structures or other human development meet or intermingle with undeveloped wildland 137 or land being used for an agricultural purpose[; and].

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[(ii) where] 2. Except as provided in paragraph 3, if the hazardous environmental

conditions exist in an unincorporated [areas that meet the description in Subsection (1)(c)(i)]

area, the state forester may prohibit the ignition or use of [the] an ignition source in all or part

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.["]

- 3. If the hazardous environmental conditions exist in a township created under Section 17-27a-306 that is in a county of the first class, the county legislative body may prohibit the ignition or use of an ignition source in all or part of the areas described in paragraph 1 that are within the township."
- (d) IFC, Chapter 3, Section 311.1.1, Abandoned Premises, is amended as follows: On line 10 delete the words "International Property Maintenance Code and the".
- (e) IFC, Chapter 3, Section 311.5, Placards, is amended as follows: On line three delete the word "shall" and replace it with the word "may".
  - (f) IFC, Chapter 3, Section 315.2.1, Ceiling Clearance, is amended to add the following: "Exception: Where storage is not directly below the sprinkler heads, storage is allowed to be placed to the ceiling on wall-mounted shelves that are protected by fire sprinkler heads in occupancies meeting classification as light or ordinary hazard."
    - (2) IFC, Chapter 4, Emergency Planning and Preparedness:
  - (a) IFC, Chapter 4, Section 404.2, Where required, Subsection 8, is amended as follows: After the word "buildings" add "to include sororities and fraternity houses".
  - (b) IFC, Chapter 4, Section 405.2, Table 405.2, is amended to add the following footnotes:
  - (i) "e. Secondary schools in Group E occupancies shall have an emergency evacuation drill for fire conducted at least every two months, to a total of four emergency evacuation drills during the nine-month school year. The first emergency evacuation drill for fire shall be conducted within 10 school days after the beginning of classes, and the third emergency evacuation drill for fire shall be conducted 10 school days after the beginning of the next calendar year. The second and fourth emergency evacuation drills may be substituted by a security or safety drill to include shelter in place, earthquake drill, or lock down for violence."
  - (ii) "f. In Group E occupancies, excluding secondary schools, if the AHJ approves, the monthly required emergency evacuation drill can be substituted by a security or safety drill to include shelter in place, earthquake drill, or lock down for violence. The routine emergency

evacuation drill for fire must by conducted at least every other evacuation drill."

(iii) "g. A-3 occupancies in academic buildings of institutions of higher learning are

required to have one emergency evacuation drill per year, provided the following conditions are

met:

- (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 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 code."
- Section 3. Section **15A-5-204** is amended to read:

less than the following minimum elements:

- 181 15A-5-204. Amendments and additions to IFC related to fire protection systems.
- For IFC, Fire Protection Systems:

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- (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 builts") to verify any modifications to the previously approved construction documents."
  - (2) IFC, Chapter 9, Section 901.4.6, Pump and Riser Room Size, is deleted and replaced with the following: "Pump and Riser Room Size. Fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all installed equipment necessary for the installation and to provide sufficient working space around the stationary equipment. Clearances around equipment shall be in accordance with manufacturer requirements and not
- 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

installed equipment and appliances, to allow for inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.

- 901.4.6.4 Automatic sprinkler system riser rooms shall be provided with a clear and unobstructed passageway to the riser room of not less than 36 inches, and openings into the room shall be clear and unobstructed, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 34 inches and a clear height of the door opening shall not be less than 80 inches.
- 901.4.6.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the fire pump room of not less than 72 inches, and openings into the room shall be clear, unobstructed and large enough to allow for the removal of the largest piece of equipment, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 68 inches and a clear height of the door opening shall not be less than 80 inches."
- (3) IFC, Chapter 9, Section 903.2.1.2, Group A-2, is amended to add the following subsection: "4. An automatic fire sprinkler system shall be provided throughout Group A-2 occupancies where indoor pyrotechnics are used."
- (4) IFC, Chapter 9, Section 903.2.2, Ambulatory Health Care Facilities, is amended as follows: On line two delete the words "all fire areas floor" and replace with the word "buildings" and delete the last paragraph.
- (5) IFC, Chapter 9, Section 903.2.4, Group F-1, Subsection 2, is deleted and rewritten as follows: "A Group F-1 fire area is located more than three stories above the lowest level of fire department vehicle access."
- (6) IFC, Chapter 9, Section 903.2.7, Group M, Subsection 2, is deleted and rewritten as follows: "A Group M fire area is located more than three stories above the lowest level of fire department vehicle access."
- (7) IFC, Chapter 9, Section 903.2.8 Group R, is amended to add the following:
   "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." (8) IFC, Chapter 9, Section 903.2.8, Group R, is amended to add a second exception as 228 229 follows: "Exception: Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16 residents, provided the building is equipped throughout with an 230 231 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 follows: "Exception: Single story group R-1 occupancies with fire areas not more than 2,000 234 235 square feet that contain no installed plumbing or heating, where no cooking occurs, and constructed of Type I-A, I-B, II-A, or II-B construction." 236 [(9)] (10) IFC, Chapter 9, Section 903.2.9, Group S-1, Subsection 2, is deleted and 237 rewritten as follows: "A Group S-1 fire area is located more than three stories above the lowest 238 239 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 system installed in accordance with NFPA 13 may not exceed a maximum concentration of 242 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may 243 244 not exceed 150 gallons." 245 [(11)] (12) IFC, Chapter 9, Section 903.3.1.2 is amended by adding the following subsection: "903.3.1.2.2 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler 246 system installed in accordance with NFPA 13R may not exceed a maximum concentration of 247 248 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 subsection: "903.3.1.3.1 Antifreeze Limitations. Antifreeze used in a new automatic sprinkler 251 system installed in accordance with NFPA 13D may not exceed a maximum concentration of 252 38% premixed propylene glycol or 48% premixed glycerin, and the capacity of the system may 253

| 254 | not exceed | 150 | gallons.' |
|-----|------------|-----|-----------|
|     | not oncou  | 100 | Eurions.  |

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

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

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

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

- (a) "Existing automatic fire extinguishing systems used for commercial cooking that use dry chemical are prohibited and shall be removed from service."
- (b) "Existing wet chemical fire extinguishing systems used for commercial cooking that are not UL300 listed and labeled are prohibited and shall be either removed or upgraded to a UL300 listed and labeled system."

[(17)] (18) IFC, Chapter 9, Section 904.11.4, Special provisions for automatic sprinkler systems, is amended to add the following subsection: "904.11.4.2 Existing automatic fire sprinkler systems protecting commercial cooking equipment, hood, and exhaust systems that generate appreciable depth of cooking oils shall be replaced with a UL300 system that is listed 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 approval is received from the AHJ." 286 [(19)] (20) IFC, Chapter 9, Section 905.3.9 is a new subsection as follows: "Open 287 288 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 garage such that all portions of the parking structure are protected within 150 feet of a hose 292 293 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." [(21)] (22) IFC, Chapter 9, Section 905.11, Existing buildings, and IFC, Chapter 11, 299 300 Section 1103.6. Standpipes, are deleted. 301 [<del>(22)</del>] (23) In IFC, Chapter 9, Section 906.1, Where Required, the exception under paragraph 1 is deleted and rewritten to read: "Exception: In new and existing Group A, B, and 302 E occupancies equipped with quick response sprinklers, portable fire extinguishers shall be 303 304 required only in locations specified in items 2 through 6. 305 [<del>(23)</del>] (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 [<del>(24)</del>] (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. 908.7.2 In new construction, a carbon monoxide detector shall receive its primary 321

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power as required under IFC, Chapter 9, Section 907.2.11.4.

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

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

Section 4. Effective date.

This bill takes effect on July 1, 2014.

H.B. 245