

1 STATE CONSTRUCTION CODE ADOPTION

2 2010 GENERAL SESSION

3 STATE OF UTAH

4 Chief Sponsor: Michael T. Morley

5 Senate Sponsor: J. Stuart Adams

7 LONG TITLE

8 General Description:

9 This bill adopts the State Construction Code in accordance with the Utah Uniform
10 Building Standards Act.

11 Highlighted Provisions:

12 This bill:

- 13 ▶ includes general provisions; and
- 14 ▶ adopts the State Construction Code.

15 Monies Appropriated in this Bill:

16 None

17 Other Special Clauses:

18 This bill takes effect on July 1, 2010.

19 Utah Code Sections Affected:

20 ENACTS UNCODIFIED MATERIAL

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

23 Section 1. **Title -- Definitions -- General provisions.**

24 (1) This bill is known as the "State Construction Code Adoption Act."

25 (2) As used in this bill:

26 (a) "Division" means the Division of Occupational and Professional Licensing created
27 in Utah Code, Section 58-1-103.

28 (b) "State Construction Code" means the code adopted under Section 2 of this bill.

29 (c) "Utah Code" means the Utah Code Annotated (1953), as amended.

30 (3) As part of the division's compliance with Utah Code, Section 58-56-6, the division
31 may modify the format of the State Construction Code to provide accessibility to users of the
32 State Construction Code.

33 **Section 2. State Construction Code adopted.**

34 In accordance with Utah Code, Title 58, Chapter 56, Utah Uniform Building Standards
35 Act, the Legislature, repeals the state construction code in effect on June 30, 2010, and adopts
36 the following as the State Construction Code effective July 1, 2010:

37 **State Construction Code**

38 **Part 1. General Provisions**

39 **Section 101. Specific editions of construction codes of a nationally recognized code**
40 **authority adopted -- Scope of application.**

41 (1) (a) Subject to the limitations contained in Subsections (4), (5), and (6), the
42 following construction codes are incorporated by reference, and together with the amendments
43 specified under this bill, are the construction standards to be applied to building construction,
44 alteration, remodeling, and repair, and in the regulation of building construction, alteration,
45 remodeling and repair in the state:

46 (i) the 2009 edition of the International Building Code (IBC), including Appendix J,
47 issued by the International Code Council;

48 (ii) the 2008 edition of the National Electrical Code (NEC), issued by the National
49 Fire Protection Association;

50 (iii) the 2009 edition of the International Plumbing Code (IPC), issued by the
51 International Code Council;

52 (iv) the 2009 edition of the International Mechanical Code (IMC), issued by the
53 International Code Council;

54 (v) the 2009 edition of the International Residential Code (IRC), issued by the
55 International Code Council;

56 (vi) the 2009 edition of the International Energy Conservation Code (IECC), issued by
57 the International Code Council;

58 (vii) the 2009 edition of the International Fuel Gas Code (IFGC), issued by the
59 International Code Council;

60 (viii) subject to Subsection (3), the Federal Manufactured Housing Construction and
61 Safety Standards Act (HUD Code), as issued by the Department of Housing and Urban
62 Development and published in 24 C.F.R. Parts 3280 and 3282 (as revised April 1, 1990);

63 (ix) subject to Subsection (2), Appendix E of the 2009 edition of the International
64 Residential Code, issued by the International Code Council; and

65 (x) subject to Subsection (2), the 2005 edition of the NFPA 225 Model Manufactured
66 Home Installation Standard, issued by the National Fire Protection Association.

67 (b) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire
68 Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code
69 (UWUI) issued by the International Code Council, with the alternatives or amendments
70 approved by the Utah Division of Forestry, as a construction code that may be adopted by a
71 local compliance agency by local ordinance or other similar action as a local amendment to the
72 codes listed in this Subsection (1).

73 (2) The following are the installation standards for manufactured housing for new
74 installations or for existing manufactured or mobile homes that are subject to relocation,
75 building alteration, remodeling, or rehabilitation in the state:

76 (a) The manufacturer's installation instruction for the model being installed is the
77 primary standard.

78 (b) If the manufacturer's installation instruction for the model being installed is not
79 available or is incomplete, the following standards apply:

80 (i) Appendix E of the 2009 edition of the IRC, as issued by the International Code
81 Council for installations defined in Section AE101 of Appendix E; or

82 (ii) if an installation is beyond the scope of the 2009 edition of the IRC as defined in
83 Section AE101 of Appendix E, the 2005 edition of the NFPA 225 Model Manufactured Home
84 Installation Standard, issued by the National Fire Protection Association.

85 (c) A manufacturer, dealer, or homeowner is permitted to design for unusual

86 installation of a manufactured home not provided for in the manufacturer's standard
87 installation instruction, Appendix E of the 2009 edition of the IRC, or the 2005 edition of the
88 NFPA 225, if the design is approved in writing by a professional engineer or architect licensed
89 in Utah.

90 (d) For a mobile home built before June 15, 1976, the home shall also comply with the
91 additional installation and safety requirements specified in State Construction Code, Section
92 208.

93 (3) Pursuant to the HUD Code Section 604(d), a manufactured home may be installed
94 in the state that does not meet the local snow load requirements as specified in State
95 Construction Code, Section 202, except that the manufactured home shall have a protective
96 structure built over the home that meets the IRC and the snow load requirements under State
97 Construction Code, Section 202.

98 (4) To the extent that a construction code adopted under Subsection (1) establishes a
99 local administrative function or establishes a method of appeal which pursuant to Utah Code,
100 Section 58-56-8 is designated to be established by the compliance agency:

101 (a) that provision of the construction code is not included in the State Construction
102 Code; and

103 (b) a compliance agency may establish provisions to establish a local administrative
104 function or a method of appeal.

105 (5) (a) To the extent that a construction code adopted under Subsection (1) establishes
106 a provision, standard, or reference to another code that by state statute is designated to be
107 established or administered by another state agency, or a local city, town, or county
108 jurisdiction:

109 (i) that provision of the construction code is not included in the State Construction
110 Code; and

111 (ii) the agency or local government has authority over that provision of the
112 construction code.

113 (b) Provisions excluded under this Subsection (5) include:

- 114 (i) the International Property Maintenance Code;
115 (ii) the International Private Sewage Disposal Code, authority over which is reserved
116 to the Department of Health and the Department of Environmental Quality;
117 (iii) the International Fire Code, authority over which is reserved to the Utah Fire
118 Prevention Board, pursuant to Utah Code, Section 53-7-106;
119 (iv) a day care provision that is in conflict with Utah Code, Title 26, Chapter 39, Utah
120 Child Care Licensing Act, authority over which is designated to the Utah Department of
121 Health; and
122 (v) a wildland urban interface provision that goes beyond the authority under Utah
123 Code, Section 58-56-4, for the State Construction Code, authority over which is designated to
124 the Utah Division of Forestry or to a local compliance agency.

125 (6) If a construction code adopted under Subsection (1) establishes a provision that
126 exceeds the scope described in Title 58, Chapter 56, Utah Uniform Building Standards Act, to
127 the extent the scope is exceeded, the provision is not included in the State Construction Code.

128 **Part 2. Statewide Amendments**

129 **Section 201. Statewide amendments to the IBC.**

130 The following are adopted as amendments to the IBC to be applicable statewide:

- 131 (1) IBC, Section 106, is deleted.
132 (2) (a) In IBC, Section 110, a new section is added as follows: "110.3.5,
133 Weather-resistant exterior wall envelope. An inspection shall be made of the weather-resistant
134 exterior wall envelope as required by Section 1403.2, and flashing as required by Section
135 1405.4 to prevent water from entering the weather-resistive barrier."
136 (b) The remaining sections of IBC, Section 110, are renumbered as follows: 110.3.6,
137 Lath or gypsum board inspection; 110.3.7, Fire-and smoke-resistant penetrations; 110.3.8
138 Energy efficiency inspections; 110.3.9, Other inspections; 110.3.10, Special inspections;
139 110.3.11, Final inspection.
140 (3) IBC, Section 115.1, is deleted and replaced with the following: "115.1 Authority.
141 Whenever the building official finds any work regulated by this code being performed in a

142 manner either contrary to the provisions of this code or other pertinent laws or ordinances or
143 dangerous or unsafe, the building official is authorized to stop work."

144 (4) In IBC, Section 202, the definition for "Assisted Living Facility" is deleted and
145 replaced with the following: "ASSISTED LIVING FACILITY. See Section 308.1.1."

146 (5) In IBC, Section 202, the definition for "Child Care Facilities" is deleted and
147 replaced with the following: "CHILD CARE FACILITIES. See Section 308.3.1."

148 (6) In the list in IBC, Section 304.1, "Ambulatory health care facilities" is deleted and
149 replaced with "Ambulatory health care facilities with four or fewer surgical operating rooms."

150 (7) IBC, Section 305.2, is deleted and replaced with the following: "305.2 Day care.
151 The use of a building or structure, or portion thereof, for educational, supervision, child day
152 care centers, or personal care services of more than four children shall be classified as a Group
153 E occupancy. See Section 424 for special requirements for Group E child day care centers.
154 Exception: Areas used for child day care purposes with a Residential Certificate or a Family
155 License, as defined in Utah Administrative Code, R430-90, Licensed Family Child Care, may
156 be located in a Group R-2 or R-3 occupancy as provided in Section 310.1 or shall comply with
157 the International Residential Code in accordance with Section 101.2. Areas used for Hourly
158 Child Care Centers, as defined in Utah Administrative Code, R430-60, or Out of School Time
159 Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory
160 occupancies."

161 (8) In IBC, Section 308, the following definitions are added: "308.1.1 Definitions. The
162 following words and terms shall, for the purposes of this section and as used elsewhere in this
163 code, have the meanings shown herein.

164 TYPE I ASSISTED LIVING FACILITY. A residential facility licensed by the Utah
165 Department of Health that provides a protected living arrangement for ambulatory,
166 non-restrained persons who are capable of achieving mobility sufficient to exit the facility
167 without the assistance of another person.

168 TYPE II ASSISTED LIVING FACILITY. A residential facility licensed by the Utah
169 Department of Health that provides an array of coordinated supportive personal and health

170 care services to residents who meet the definition of semi-independent.

171 SEMI-INDEPENDENT. A person who is:

172 A. Physically disabled but able to direct his or her own care; or

173 B. Cognitively impaired or physically disabled but able to evacuate from the facility with the
174 physical assistance of one person.

175 RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. A residential
176 treatment/support assisted living facility which creates a group living environment for four or
177 more residents licensed by the Utah Department of Human Services, and provides a protected
178 living arrangement for ambulatory, non-restrained persons who are capable of achieving
179 mobility sufficient to exit the facility without the physical assistance of another person."

180 (9) In IBC, Section 308.2, the words "Assisted living facilities" are deleted and
181 replaced with "Type I Assisted living facilities."

182 (10) IBC, Section 308.3, is deleted and replaced with the following: "308.3 Group I-2.
183 This occupancy shall include buildings and structures used for medical, surgical, psychiatric,
184 nursing, or custodial care on a 24-hour basis of more than three persons who are not capable of
185 self-preservation. This group shall include, but not be limited to the following: hospitals,
186 nursing homes (both intermediate care facilities and skilled nursing facilities), mental
187 hospitals, detoxification facilities, ambulatory surgical centers with five or more operating
188 rooms where care is less than 24 hours, and type II assisted living facilities. Type II assisted
189 living facilities with five or fewer persons shall be classified as a Group R-4. Type II assisted
190 living facilities as defined in 308.1.1 with at least six and not more than sixteen residents shall
191 be classified as a Group I-1 facility."

192 (11) In IBC, Section 308.3.1, the definition for "CHILD CARE FACILITIES" is
193 deleted and replaced with the following: "CHILD CARE FACILITIES. A child care facility, as
194 licensed by the Utah Department of Human Services in Utah Administrative Code, R501, that
195 provides care on a 24-hour basis to more than four children 2 1/2 years of age or less shall be
196 classified as Group I-2."

197 (12) IBC, Section 308.5, is deleted and replaced with the following: "308.5 Group I-4,

198 day care facilities. This group shall include buildings and structures occupied by persons of
199 any age who receive custodial care less than 24 hours by individuals other than parents or
200 guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the
201 person cared for. A facility such as the above with four or fewer persons shall be classified as
202 an R-3 or shall comply with the International Residential Code in accordance with Section
203 101.2. Places of worship during religious functions and Group E child day care centers are not
204 included."

205 (13) IBC, Section 308.5.2, is deleted.

206 (14) In IBC, Section 310.1, in the subsection designated as R-1, at the end of the
207 sentence beginning with "Congregate living facilities" the following is added: "or shall comply
208 with the International Residential Code."

209 (15) In IBC, Section 310.1, in the subsection designated as R-2, at the end of the
210 sentence beginning with "Congregate living facilities" the following is added: "or shall comply
211 with the International Residential Code."

212 (16) In IBC, Section 310.1, the following is added at the end of the subsection
213 designated as R-3: "Areas used for day care purposes may be located in a residential dwelling
214 unit under all of the following conditions:

215 1. Compliance with the Utah Administrative Code, R710-8, Day Care Rules, as enacted under
216 the authority of the Utah Fire Prevention Board.

217 2. Use is approved by the Utah Department of Health, as enacted under the authority of the
218 Utah Code, Title 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following
219 categories:

220 a. Utah Administrative Code, R430-50, Residential Certificate Child Care.

221 b. Utah Administrative Code, R430-90, Licensed Family Child Care.

222 3. Compliance with all zoning regulations of the local regulator."

223 (17) In IBC, Section 310.1, the subsection designated as R-4 is deleted and replaced
224 with the following: "R-4: Residential occupancies shall include buildings arranged for
225 occupancy as Type I Assisted Living Facilities or Residential Treatment/Support Assisted

226 Living Facilities including more than five but not more than 16 residents, excluding staff.
227 Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3
228 except as otherwise provided for in this code."

229 (18) In IBC, Section 310.2, the definition for "Residential Care/Assisted Living
230 Facilities" is deleted and replaced with the following: "Assisted Living Facilities, see Section
231 308.1.1".

232 (19) Section IBC, 403.5.5, is deleted.

233 (20) In IBC, Section 422.1, the words "Sections 422.1 to 422.6" are replaced with
234 "Sections 422.1 to 422.7".

235 (21) In IBC, Section 422, a new section is added as follows: "422.7 Separation.
236 Occupancies classified as Group B Ambulatory Health Care Facilities shall be separated from
237 all surrounding tenants and occupancies in accordance with Table 508.4 but not less than
238 one-hour fire barrier when the suite is capable of providing care for four or more care
239 recipients who are incapable of self preservation."

240 (22) A new IBC, Section 424, is added as follows: "Section 424 Group E Child Day
241 Care Centers. Group E child day care centers shall comply with Section 424.

242 424.1 Location at grade. Group E child day care centers shall be located at the level of exit
243 discharge.

244 Exception: Child day care spaces for children over the age of 24 months may be located on the
245 second floor of buildings equipped with automatic fire protection throughout and an automatic
246 fire alarm system.

247 424.2 Egress. All Group E child day care spaces with an occupant load of more than 10 shall
248 have a second means of egress. If the second means of egress is not an exit door leading
249 directly to the exterior, the room shall have an emergency escape and rescue window
250 complying with Section 1029.

251 424.3 All Group E Child Day Care Centers shall comply with Utah Administrative Code,
252 R430-100, Child Care Centers."

253 (23) In IBC, Section 504.2, a new section is added as follows: "504.2.1

254 Notwithstanding the exceptions to Section 504.2, Group I-2 Assisted Living Facilities shall be
255 allowed to be two stories of Type V-A construction when all of the following apply:

256 1. All secured units are located at the level of exit discharge in compliance with Section
257 1008.1.9.3 as amended;

258 2. The total combined area of both stories shall not exceed the total allowable area for a
259 one-story building; and

260 3. All other provisions that apply in Section 407 have been provided."

261 (24) In IBC, Table 508.4, a new footnote g is added as follows: "g. See Section 422.7
262 for additional requirements of Group B Ambulatory Health Care Facilities."

263 (25) In IBC, Section 707.5.1, a new exception 4 is added as follows: "4. Group B
264 Ambulatory Health Care Facilities."

265 (26) In IBC, Section (F)902, the definition for record drawings is deleted and replaced
266 with the following: "(F) RECORD DRAWINGS. Drawings ("as built") that document all
267 aspects of a fire protection system as installed."

268 (27) In IBC, Section (F)903.2.2, the words "all fire areas" are deleted and replaced
269 with "buildings".

270 (28) IBC, Section (F)903.2.4, condition 2, is deleted and replaced with the following:
271 "2. A Group F-1 fire area is located more than three stories above the lowest level of fire
272 department vehicle access."

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

276 (30) IBC, Section (F)903.2.8, is deleted and replaced with the following: "(F)903.2.8
277 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be
278 provided throughout all buildings with a Group R fire area.

279 Exceptions:

280 1. Detached one- and two-family dwellings and multiple single-family dwellings

281 (townhouses) constructed in accordance with the International Residential Code For One- and

282 Two-Family Dwellings.

283 2. Group R-4 fire areas not more than 4,500 gross square feet and not containing more than
284 16 residents, provided the building is equipped throughout with an approved fire alarm system
285 that is interconnected and receives its primary power from the building wiring and a
286 commercial power system."

287 (31) IBC, Section (F)903.2.9, condition 2, is deleted and replaced with the following:

288 "2. A Group S-1 fire area is located more than three stories above the lowest level of fire
289 department vehicle access."

290 (32) IBC, Section (F)903.2.10, is deleted and replaced with the following:

291 "(F)903.2.10 Group S-2. An automatic sprinkler system shall be provided throughout
292 buildings classified as parking garages in accordance with Section 406.2 or where located
293 beneath other groups.

294 Exception 1: Parking garages of less than 5,000 square feet (464 m²) accessory to Group R-3
295 occupancies.

296 Exception 2: Open parking garages not located beneath other groups if one of the following
297 conditions is met:

298 a. Access is provided for fire fighting operations to within 150 feet (45,720 mm) of all
299 portions of the parking garage as measured from the approved fire department vehicle access;

300 or

301 b. Class I standpipes are installed throughout the parking garage."

302 (33) In IBC, Section (F)903.2.10.1, the last clause "where the fire area exceeds 5,000
303 square feet (464 m²)" is deleted.

304 (34) IBC, Section (F)904.11, is deleted and replaced with the following: "(F)904.11

305 Commercial cooking systems. The automatic fire-extinguishing system for commercial
306 cooking systems shall be of a type recognized for protection of commercial cooking equipment

307 and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in

308 accordance with UL 300 and listed and labeled for the intended application. The system shall

309 be installed in accordance with this code, its listing and the manufacturer's installation

310 instructions.

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

314 (35) IBC, Subsections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are
315 deleted.

316 (36) A new IBC, Section (F)907.9, is added as follows: "Section (F)907.9 Carbon
317 monoxide alarms. Carbon monoxide alarms shall be installed on each habitable level of a
318 dwelling unit or sleeping unit in Groups R-2, R-3, R-4, and I-1 equipped with fuel burning
319 appliances and in dwelling units that have attached garages. If more than one carbon
320 monoxide alarm is required, they shall be interconnected as required in the International Fire
321 Code, Chapter 9, Section 907.2.11.3. In new construction, carbon monoxide alarms shall
322 receive their primary power as required in the International Fire Code, Chapter 9, Section
323 907.2.11.4. Listed single- and multiple-station carbon monoxide alarms shall comply with UL
324 2034 and shall be installed in accordance with the provisions of this code and NFPA 720."

325 (37) In IBC, Section 1008.1.9.6:

326 (a) the words "Group I-1 and" are added in the title and in the first sentence before the
327 words "Group I-2";

328 (b) the word "delayed" is deleted throughout and replaced with "controlled"; and

329 (c) the last sentence before the numbered subsections 1 through 6 is deleted.

330 (38) In IBC, Section 1009.4.2, exception 5 is deleted and replaced with the following:

331 "5. In Group R-3 occupancies, within dwelling units in Group R-2 occupancies, and in Group
332 U occupancies that are accessory to a Group R-3 occupancy, or accessory to individual
333 dwelling units in Group R-2 occupancies, the maximum riser height shall be 8 inches (203
334 mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread
335 depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall
336 be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25
337 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less

338 than 10 inches (254 mm)."

339 (39) In IBC, Section 1009.12, a new exception 6 is added as follows: "6. In
340 occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U,
341 which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails
342 shall be provided on at least one side of stairways consisting of four or more risers."

343 (40) In IBC, Section 1013.2, the words "adjacent fixed seating" are deleted.

344 (41) In IBC, Section 1013.2, a new exception 5 is added as follows: "5. For
345 occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2,
346 as applicable in Section 101.2, guards shall form a protective barrier not less than 36 inches
347 (914 mm) in height."

348 (42) In IBC, Section 1015.2.2, the following sentence is added at the end: "Additional
349 exits or exit access doorways shall be arranged a reasonable distance apart so that if one
350 becomes blocked, the others will be available."

351 (43) IBC, Section 1024, is deleted.

352 (44) A new IBC, Section 1109.7.1, is added as follows: "1109.7.1 Platform
353 (wheelchair) lifts. All platform (wheelchair) lifts shall be capable of independent operation
354 without a key."

355 (45) In IBC, Section 1208.4, subparagraph 1 is deleted and replaced with the
356 following: "1. The unit shall have a living room of not less than 165 square feet (15.3 m²) of
357 floor area. An additional 100 square feet (9.3 m²) of floor area shall be provided for each
358 occupant of such unit in excess of two."

359 (46) In IBC, Table 1604.5, Occupancy Category III, in the sentence that begins Group
360 I-2, a new footnote b is added as follows: "b. Type II Assisted Living Facilities that are I-2
361 occupancy classifications in accordance with Section 308 shall be Occupancy Category II in
362 this table."

363 (47) In IBC, Section 1605.2.1, the formula shown as " $f_2 = 0.2$ for other roof
364 configurations" is deleted and replaced with the following: " $f_2 = 0.20 + .025(A-5)$ for other
365 configurations where roof snow load exceeds 30 psf;

366 $f_2 = 0$ for roof snow loads of 30 psf (1.44kN/m²) or less.

367 Where A = Elevation above sea level at the location of the structure (ft/1000)."

368 (48) In IBC, Section 1605.3.1 and Section 1605.3.2, exception 2 in each section is
369 deleted and replaced with the following: "2. Flat roof snow loads of 30 pounds per square foot
370 (1.44 kNm²) or less need not be combined with seismic loads. Where flat roof snow loads
371 exceed 30 pounds per square foot (1.44 kNm²), the snow loads may be reduced in accordance
372 with the following in load combinations including both snow and seismic loads. W_s as
373 calculated below, shall be combined with seismic loads.

374 $W_s = (0.20 + 0.025(A-5))P_f$ is greater than or equal to 0.20 P_f .

375 Where:

376 W_s = Weight of snow to be included in seismic calculations

377 A = Elevation above sea level at the location of the structure (ft/1000)

378 P_f = Design roof snow load, psf

379 For the purpose of this section, snow load shall be assumed uniform on the roof footprint
380 without including the effects of drift or sliding. The Importance Factor, I, used in calculating
381 P_f may be considered 1.0 for use in the formula for W_s ."

382 (49) IBC, Section 1608.1, is deleted and replaced with the following: "1608.1 General.
383 Except as modified in Sections 1608.1.1, 1608.1.2, and 1608.1.3 design snow loads shall be
384 determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less
385 than that determined by Section 1607."

386 (50) A new IBC, Section 1608.1.1, is added as follows: "1608.1.1 Section 7.4.5 of
387 Chapter 7 of ASCE 7 referenced in Section 1608.1 of the IBC is deleted and replaced with the
388 following: "Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed
389 75 psf, eaves shall be capable of sustaining a uniformly distributed load of $2p_f$ on all
390 overhanging portions. No other loads except dead loads shall be present on the roof when this
391 uniformly distributed load is applied. All building exits under down-slope eaves shall be
392 protected from sliding snow and ice."

393 (51) In IBC, Section 1608.1.2, a new section is added as follows: "1608.1.2 Utah

394 Snow Loads. The ground snow load, P_g , to be used in the determination of design snow loads
 395 for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2$
 396 + $S^2(A-A_o)^2)^{0.5}$ for A greater than A_o , and $P_g = P_o$ for A less than or equal to A_o .

397 WHERE:

398 P_g = Ground snow load at a given elevation (psf);

399 P_o = Base ground snow load (psf) from Table No. 1608.1.2(a);

400 S = Change in ground snow load with elevation (psf/100 ft.) From Table No. 1608.1.2(a);

401 A = Elevation above sea level at the site (ft./1,000);

402 A_o = Base ground snow elevation from Table 1608.1.2(a) (ft./1,000).

403 The building official may round the roof snow load to the nearest 5 psf. The ground snow
 404 load, P_g , may be adjusted by the building official when a licensed engineer or architect submits
 405 data substantiating the adjustments. A record of such action together with the substantiating
 406 data shall be provided to the division for a permanent record.

407 The building official may also directly adopt roof snow loads in accordance with Table
 408 1608.1.2(b), provided the site is no more than 100 ft. higher than the listed elevation.

409 Where the minimum roof live load in accordance with Section 1607.11 is greater than the
 410 design roof snow load, such roof live load shall be used for design, however, it shall not be
 411 reduced to a load lower than the design roof snow load. Drifting need not be considered for
 412 roof snow loads less than 20 psf."

413 (52) IBC, Table 1608.1.2(a) and Table 1608.1.2(b), are added as follows:

414 "TABLE NO. 1608.1.2(a)

415 STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

| <u>COUNTY</u> | <u>P_o</u> | <u>S</u> | <u>A_o</u> |
|------------------|-------------------------|-----------|-------------------------|
| <u>Beaver</u> | <u>43</u> | <u>63</u> | <u>6.2</u> |
| <u>Box Elder</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| <u>Cache</u> | <u>50</u> | <u>63</u> | <u>4.5</u> |
| <u>Carbon</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| <u>Daggett</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |

| | | | | |
|-----|-------------------|-----------|-----------|------------|
| 422 | <u>Davis</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 423 | <u>Duchesne</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |
| 424 | <u>Emery</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 425 | <u>Garfield</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 426 | <u>Grand</u> | <u>36</u> | <u>63</u> | <u>6.5</u> |
| 427 | <u>Iron</u> | <u>43</u> | <u>63</u> | <u>5.8</u> |
| 428 | <u>Juab</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 429 | <u>Kane</u> | <u>36</u> | <u>63</u> | <u>5.7</u> |
| 430 | <u>Millard</u> | <u>43</u> | <u>63</u> | <u>5.3</u> |
| 431 | <u>Morgan</u> | <u>57</u> | <u>63</u> | <u>4.5</u> |
| 432 | <u>Piute</u> | <u>43</u> | <u>63</u> | <u>6.2</u> |
| 433 | <u>Rich</u> | <u>57</u> | <u>63</u> | <u>4.1</u> |
| 434 | <u>Salt Lake</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 435 | <u>San Juan</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |
| 436 | <u>Sanpete</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 437 | <u>Sevier</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 438 | <u>Summit</u> | <u>86</u> | <u>63</u> | <u>5.0</u> |
| 439 | <u>Tooele</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 440 | <u>Uintah</u> | <u>43</u> | <u>63</u> | <u>7.0</u> |
| 441 | <u>Utah</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 442 | <u>Wasatch</u> | <u>86</u> | <u>63</u> | <u>5.0</u> |
| 443 | <u>Washington</u> | <u>29</u> | <u>63</u> | <u>6.0</u> |
| 444 | <u>Wayne</u> | <u>36</u> | <u>63</u> | <u>6.5</u> |
| 445 | <u>Weber</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |

TABLE NO. 1608.1.2(b)

RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS(2)

| | | |
|-----|-------------------|--------------------|
| 448 | <u>Roof Snow</u> | <u>Ground Snow</u> |
| 449 | <u>Load (PSF)</u> | <u>Load (PSF)</u> |

Enrolled Copy**H.B. 45**

| | | | | |
|-----|-------------------------|------------------|-----------|-----------|
| 450 | <u>Beaver County</u> | | | |
| 451 | <u>Beaver</u> | <u>5,920 ft.</u> | <u>43</u> | <u>62</u> |
| 452 | <u>Box Elder County</u> | | | |
| 453 | <u>Brigham City</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 454 | <u>Tremonton</u> | <u>4,290 ft.</u> | <u>30</u> | <u>43</u> |
| 455 | <u>Cache County</u> | | | |
| 456 | <u>Logan</u> | <u>4,530 ft.</u> | <u>35</u> | <u>50</u> |
| 457 | <u>Smithfield</u> | <u>4,595 ft.</u> | <u>35</u> | <u>50</u> |
| 458 | <u>Carbon County</u> | | | |
| 459 | <u>Price</u> | <u>5,550 ft.</u> | <u>30</u> | <u>43</u> |
| 460 | <u>Daggett County</u> | | | |
| 461 | <u>Manila</u> | <u>5,377 ft.</u> | <u>30</u> | <u>43</u> |
| 462 | <u>Davis County</u> | | | |
| 463 | <u>Bountiful</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 464 | <u>Farmington</u> | <u>4,270 ft.</u> | <u>30</u> | <u>43</u> |
| 465 | <u>Layton</u> | <u>4,400 ft.</u> | <u>30</u> | <u>43</u> |
| 466 | <u>Fruit Heights</u> | <u>4,500 ft.</u> | <u>40</u> | <u>57</u> |
| 467 | <u>Duchesne County</u> | | | |
| 468 | <u>Duchesne</u> | <u>5,510 ft.</u> | <u>30</u> | <u>43</u> |
| 469 | <u>Roosevelt</u> | <u>5,104 ft.</u> | <u>30</u> | <u>43</u> |
| 470 | <u>Emery County</u> | | | |
| 471 | <u>Castledale</u> | <u>5,660 ft.</u> | <u>30</u> | <u>43</u> |
| 472 | <u>Green River</u> | <u>4,070 ft.</u> | <u>25</u> | <u>36</u> |
| 473 | <u>Garfield County</u> | | | |
| 474 | <u>Panguitch</u> | <u>6,600 ft.</u> | <u>30</u> | <u>43</u> |
| 475 | <u>Grand County</u> | | | |
| 476 | <u>Moab</u> | <u>3,965 ft.</u> | <u>25</u> | <u>36</u> |
| 477 | <u>Iron County</u> | | | |

H.B. 45**Enrolled Copy**

| | | | | |
|-----|-------------------------|------------------|-----------|-----------|
| 478 | <u>Cedar City</u> | <u>5,831 ft.</u> | <u>30</u> | <u>43</u> |
| 479 | <u>Juab County</u> | | | |
| 480 | <u>Nephi</u> | <u>5,130 ft.</u> | <u>30</u> | <u>43</u> |
| 481 | <u>Kane County</u> | | | |
| 482 | <u>Kanab</u> | <u>5,000 ft.</u> | <u>25</u> | <u>36</u> |
| 483 | <u>Millard County</u> | | | |
| 484 | <u>Millard</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 485 | <u>Delta</u> | <u>4,623 ft.</u> | <u>30</u> | <u>43</u> |
| 486 | <u>Morgan County</u> | | | |
| 487 | <u>Morgan</u> | <u>5,064 ft.</u> | <u>40</u> | <u>57</u> |
| 488 | <u>Piute County</u> | | | |
| 489 | <u>Piute</u> | <u>5,996 ft.</u> | <u>30</u> | <u>43</u> |
| 490 | <u>Rich County</u> | | | |
| 491 | <u>Woodruff</u> | <u>6,315 ft.</u> | <u>40</u> | <u>57</u> |
| 492 | <u>Salt Lake County</u> | | | |
| 493 | <u>Murray</u> | <u>4,325 ft.</u> | <u>30</u> | <u>43</u> |
| 494 | <u>Salt Lake City</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 495 | <u>Sandy</u> | <u>4,500 ft.</u> | <u>30</u> | <u>43</u> |
| 496 | <u>West Jordan</u> | <u>4,375 ft.</u> | <u>30</u> | <u>43</u> |
| 497 | <u>West Valley</u> | <u>4,250 ft.</u> | <u>30</u> | <u>43</u> |
| 498 | <u>San Juan County</u> | | | |
| 499 | <u>Blanding</u> | <u>6,200 ft.</u> | <u>30</u> | <u>43</u> |
| 500 | <u>Monticello</u> | <u>6,820 ft.</u> | <u>35</u> | <u>50</u> |
| 501 | <u>Sanpete County</u> | | | |
| 502 | <u>Fairview</u> | <u>6,750 ft.</u> | <u>35</u> | <u>50</u> |
| 503 | <u>Mt. Pleasant</u> | <u>5,900 ft.</u> | <u>30</u> | <u>43</u> |
| 504 | <u>Manti</u> | <u>5,740 ft.</u> | <u>30</u> | <u>43</u> |
| 505 | <u>Ephraim</u> | <u>5,540 ft.</u> | <u>30</u> | <u>43</u> |

Enrolled Copy**H.B. 45**

| | | | | |
|-----|--------------------------|------------------|---------------|------------|
| 506 | <u>Gunnison</u> | <u>5,145 ft.</u> | <u>30</u> | <u>43</u> |
| 507 | <u>Sevier County</u> | | | |
| 508 | <u>Salina</u> | <u>5,130 ft.</u> | <u>30</u> | <u>43</u> |
| 509 | <u>Richfield</u> | <u>5,270 ft.</u> | <u>30</u> | <u>43</u> |
| 510 | <u>Summit County</u> | | | |
| 511 | <u>Coalville</u> | <u>5,600 ft.</u> | <u>60</u> | <u>86</u> |
| 512 | <u>Kamas</u> | <u>6,500 ft.</u> | <u>70</u> | <u>100</u> |
| 513 | <u>Park City</u> | <u>6,800 ft.</u> | <u>100</u> | <u>142</u> |
| 514 | <u>Park City</u> | <u>8,400 ft.</u> | <u>162</u> | <u>231</u> |
| 515 | <u>Summit Park</u> | <u>7,200 ft.</u> | <u>90</u> | <u>128</u> |
| 516 | <u>Tooele County</u> | | | |
| 517 | <u>Tooele</u> | <u>5,100 ft.</u> | <u>30</u> | <u>43</u> |
| 518 | <u>Uintah County</u> | | | |
| 519 | <u>Vernal</u> | <u>5,280 ft.</u> | <u>30</u> | <u>43</u> |
| 520 | <u>Utah County</u> | | | |
| 521 | <u>American Fork</u> | <u>4,500 ft.</u> | <u>30</u> | <u>43</u> |
| 522 | <u>Orem</u> | <u>4,650 ft.</u> | <u>30</u> | <u>43</u> |
| 523 | <u>Pleasant Grove</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 524 | <u>Provo</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 525 | <u>Spanish Fork</u> | <u>4,720 ft.</u> | <u>30</u> | <u>43</u> |
| 526 | <u>Wasatch County</u> | | | |
| 527 | <u>Heber</u> | <u>5,630 ft.</u> | <u>60</u> | <u>86</u> |
| 528 | <u>Washington County</u> | | | |
| 529 | <u>Central</u> | <u>5,209 ft.</u> | <u>25</u> | <u>36</u> |
| 530 | <u>Dameron</u> | <u>4,550 ft.</u> | <u>25</u> | <u>36</u> |
| 531 | <u>Leeds</u> | <u>3,460 ft.</u> | <u>20</u> | <u>29</u> |
| 532 | <u>Rockville</u> | <u>3,700 ft.</u> | <u>25</u> | <u>36</u> |
| 533 | <u>Santa Clara</u> | <u>2,850 ft.</u> | <u>15 (1)</u> | <u>21</u> |

| | | | | |
|-----|---------------------|------------------|---------------|-----------|
| 534 | <u>St. George</u> | <u>2,750 ft.</u> | <u>15 (1)</u> | <u>21</u> |
| 535 | <u>Wayne County</u> | | | |
| 536 | <u>Loa</u> | <u>7,080 ft.</u> | <u>30</u> | <u>43</u> |
| 537 | <u>Hanksville</u> | <u>4,308 ft.</u> | <u>25</u> | <u>36</u> |
| 538 | <u>Weber County</u> | | | |
| 539 | <u>North Ogden</u> | <u>4,500 ft.</u> | <u>40</u> | <u>57</u> |
| 540 | <u>Ogden</u> | <u>4,350 ft.</u> | <u>30</u> | <u>43</u> |

541 NOTES

542 (1) The IBC requires a minimum live load - See 1607.11.2.

543 (2) This table is informational only in that actual site elevations may vary. Table is only valid
544 if site elevation is within 100 feet of the listed elevation."

545 (53) A new IBC, Section 1608.1.3, is added as follows: "1608.1.3 Thermal Factor. The
546 value for the thermal factor, C_t, used in calculation of P_f shall be determined from Table 7.3 in
547 ASCE 7.

548 Exception: Except for unheated structures, the value of C_t need not exceed 1.0 when ground
549 snow load, P_g is calculated using Section 1608.1.2 as amended."

550 (54) IBC, Section 1608.2, is deleted and replaced with the following: "1608.2 Ground
551 Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs
552 in states other than Utah are given in Figure 1608.2 for the contiguous United States and Table
553 1608.2 for Alaska. Site-specific case studies shall be made in areas designated CS in figure
554 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2
555 and for all sites within the CS areas shall be approved. Ground snow load determination for
556 such sites shall be based on an extreme value statistical analysis of data available in the
557 vicinity of the site using a value with a 2-percent annual probability of being exceeded
558 (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous
559 regions as approved by the building official."

560 (55) In IBC, Section 1609.1.1, a new exception 7 is added as follows: "7. The wind
561 design procedure as found in Sections 1616 through 1624 of the 1997 Uniform Building Code

562 may be used as an alternative wind design procedure for signs and free standing walls as listed
563 in item 7 listed in Table 16-H of the 1997 Uniform Building Code. The Importance Factor, I,
564 shall be determined in accordance with Table 6-1 of ASCE 7. Stress increases are only allowed
565 as provided in Section 1605.3 of the 2009 IBC."

566 (56) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 ASCE 12.7.2 and
567 12.14.8.1 of Chapter 12 of ASCE 7 referenced in Section 1613.1, Definition of W, Item 4 is
568 deleted and replaced with the following:

569 4. Where the flat roof snow load, P_f , exceeds 30 psf, the snow load included in seismic design
570 shall be calculated, in accordance with the following formula: $W_s = (0.20 + 0.025(A-5))P_f$ is
571 greater than or equal to $0.20 P_f$.

572 WHERE:

573 W_s = Weight of snow to be included in seismic calculations;

574 A = Elevation above sea level at the location of the structure (ft/1,000);

575 P_f = Design roof snow load, psf.

576 For the purposes of this section, snow load shall be assumed uniform on the roof footprint
577 without including the effects of drift or sliding. The Importance Factor, I, used in calculating
578 P_f may be considered 1.0 for use in the formula for W_s ."

579 (57) A new IBC, Section 1613.8, is added as follows: "1613.8 ASCE 7, Section
580 13.5.6.2.2 paragraph (e) is modified to read as follows: (e) Penetrations shall have a sleeve or
581 adapter through the ceiling tile to allow for free movement of at least 1 inch (25 mm) in all
582 horizontal directions.

583 Exceptions:

584 1. Where rigid braces are used to limit lateral deflections.

585 2. At fire sprinkler heads in frangible surfaces per NFPA 13."

586 (58) A new IBC, Section 1807.1.6.4, is added as follows: "1807.1.6.4 Empirical
587 concrete foundation design. Group R, Division 3 Occupancies three stories or less in height,
588 and Group U Occupancies, which are constructed in accordance with Section 2308, or with
589 other methods employing repetitive wood-frame construction or repetitive cold-formed steel

590 structural member construction, shall be permitted to have concrete foundations constructed in
 591 accordance with Table 1807.1.6.4."

592 (59) A new IBC, Table 1807.1.6.4 is added as follows:

593 "TABLE 1807.1.6.4

594 EMPIRICAL FOUNDATION WALLS (1,7,8)

| 595 | <u>Max. Height</u> | <u>Top Edge</u> | <u>Min.</u> | <u>Vertical</u> | <u>Horizontal</u> | <u>Steel at</u> | <u>Max. Lintel</u> | <u>Min. Lintel</u> |
|-----|---------------------|--|------------------|------------------|-------------------|---|---------------------|--|
| 596 | | <u>Support</u> | <u>Thickness</u> | <u>Steel (2)</u> | <u>Steel (3)</u> | <u>Openings (4)</u> | <u>Length</u> | <u>Length</u> |
| 597 | <u>2'(610 mm)</u> | <u>None</u> | <u>6"</u> | <u>(5)</u> | <u>2#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | <u>2'(610 mm)</u> | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 602 | <u>3'(914 mm)</u> | <u>None</u> | <u>6"</u> | <u>#4@32"</u> | <u>3-#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | <u>2'(610 mm)</u> | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 607 | <u>4'(1,219 mm)</u> | <u>None</u> | <u>6"</u> | <u>#4@32"</u> | <u>4-#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | <u>3'(914 mm)</u> | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 612 | <u>6'(1,829 mm)</u> | <u>Floor or roof</u> <u>Diaphragm</u> | <u>8"</u> | <u>#4@24"</u> | <u>5-#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 614 | | <u>(6)</u> | | | | | | |
| 617 | <u>8'(2,438 mm)</u> | <u>Floor or roof</u> <u>Diaphragm</u> | <u>8"</u> | <u>#4@24"</u> | <u>6-#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | <u>6'(1,829 mm)</u> | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 619 | | <u>(6)</u> | | | | | | |
| 622 | <u>9'(2,743 mm)</u> | <u>Floor or roof</u> <u>Diaphragm</u> | <u>8"</u> | <u>#4@16"</u> | <u>7-#4 Bars</u> | <u>2- #4 Bars above</u> <u>1- #4 Bar each side</u> <u>1- #4 Bar below</u> | <u>6'(1,829 mm)</u> | <u>2"for each</u> <u>foot of</u> <u>opening</u> <u>width;</u> <u>min. 6"</u> |
| 623 | | <u>(6)</u> | | | | | | |

626

min. 6"

627 Over 9'(2,743 mm), Engineering required for each column628 Footnotes:629 (1) Based on 3,000 psi (20.6 Mpa) concrete and 60,000 psi (414 Mpa) reinforcing steel.630 (2) To be placed in the center of the wall, and extended from the footing to within three631 inches (76 mm) of the top of the wall; dowels of #4 bars to match vertical steel placement shall632 be provided in the footing, extending 24 inches (610 mm) into the foundation wall.633 (3) One bar shall be located in the top four inches (102 mm), one bar in the bottom four634 inches (102 mm) and the other bars equally spaced between. Such bar placement satisfies the635 requirements of Section 1805.9. Corner reinforcing shall be provided so as to lap 24 inches636 (610 mm).637 (4) Bars shall be placed within two inches (51 mm) of the openings and extend 24 inches638 (610 mm) beyond the edge of the opening; vertical bars may terminate three inches (76 mm)639 from the top of the concrete.640 (5) Dowels of #4 bar at 32 inches on center shall be provided in the footing, extending 18641 inches (457 mm) into the foundation wall.642 (6) Diaphragm shall conform to the requirements of Section 2308.643 (7) Footing shall be a minimum of nine inches thick by 20 inches wide.644 (8) Soil backfill shall be soil classification types GW, GP, SW, or SP, per Table 1610.1. Soil645 shall not be submerged or saturated in groundwater."646 (60) A new IBC, Section 2306.1.5, is added as follows: "2306.1.5 Load duration647 factors. The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Frequently648 Used Load Duration Factors, C_{dt} , of the National Design Specifications, shall not be utilized at649 elevations above 5,000 feet (1,524 M)."650 (61) In IBC, Section 2308.6, a new exception is added as follows: "Exception: Where651 foundation plates or sills are bolted or anchored to the foundation with not less than 1/2 inch652 (12.7 mm) diameter steel bolts or approved anchors, embedded at least 7 inches (178 mm) into653 concrete or masonry and spaced not more than 32 inches (816 mm) apart, there shall be a654 minimum of two bolts or anchor straps per piece located not less than 4 inches (102 mm) from

655 each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the
656 plate."

657 (62) IBC, Section 2506.2.1, is deleted and replaced with the following: "2506.2.1
658 Other materials. Metal suspension systems for acoustical and lay-in panel ceilings shall
659 conform with ASTM C635 listed in Chapter 35 and Section 13.5.6 of ASCE 7-05, as amended
660 in Section 1613.8, for installation in high seismic areas."

661 (63) In IBC, Section 2902.1, the title for Table 2902.1 is deleted and replaced and a
662 new footnote g is added as follows:

- 663 (a) "Table 2902.1, Minimum Number of Required Plumbing Facilities^{a, g}"; and
- 664 (b) "FOOTNOTE: g. When provided, in public toilet facilities there shall be an equal
665 number of diaper changing facilities in male toilet rooms and female toilet rooms."

666 (64) In IBC, Section 3006.5, a new exception is added as follows: "Exception:
667 Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less."

668 (65) A new section IBC, Section 3401.6, is added as follows: "3401.6 Parapet bracing,
669 wall anchors, and other appendages. Buildings constructed prior to 1975 shall have parapet
670 bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary,
671 etc. evaluated by a licensed engineer when said building is undergoing reroofing, or alteration
672 of or repair to said feature. Such parapet bracing, wall anchors, and appendages shall be
673 evaluated in accordance with 75% of the seismic forces as specified in Section 1613. When
674 allowed by the local building official, alternate methods of equivalent strength as referenced in
675 an approved code under Utah Code, Subsection 58-56-4(6)(a), will be considered when
676 accompanied by engineer-sealed drawings, details, and calculations. When found to be
677 deficient because of design or deteriorated condition, the engineer's recommendations to
678 anchor, brace, reinforce, or remove the deficient feature shall be implemented.

679 EXCEPTIONS:

- 680 1. Group R-3 and U occupancies.
- 681 2. Unreinforced masonry parapets need not be braced according to the above stated provisions
682 provided that the maximum height of an unreinforced masonry parapet above the level of the

683 diaphragm tension anchors or above the parapet braces shall not exceed one and one-half
684 times the thickness of the parapet wall. The parapet height may be a maximum of two and
685 one-half times its thickness in other than Seismic Design Categories D, E, or F."

686 (66) IBC, Section 3408.4, is deleted and replaced with the following: "3408.4 Change
687 in Occupancy. When a change in occupancy results in a structure being reclassified to a higher
688 Occupancy Category (as defined in Table 1604.5), or when such change of occupancy results
689 in a design occupant load increase of 100% or more, the structure shall conform to the seismic
690 requirements for a new structure.

691 Exceptions:

692 1. Specific seismic detailing requirements of this code or ASCE 7 for a new structure shall not
693 be required to be met where it can be shown that the level of performance and seismic safety is
694 equivalent to that of a new structure. Such analysis shall consider the regularity, overstrength,
695 redundancy, and ductility of the structure within the context of the existing and retrofit (if any)
696 detailing providing. Alternatively, the building official may allow the structure to be upgraded
697 in accordance with referenced sections as found in an approved code under Utah Code,

698 Subsection 58-56-4(6)(a).

699 2. When a change of use results in a structure being reclassified from Occupancy Category I
700 or II to Occupancy Category III and the structure is located in a seismic map area where S_{DS} is
701 less than 0.33, compliance with the seismic requirements of this code and ASCE 7 are not
702 required.

703 3. Where design occupant load increase is less than 25 occupants and the Occupancy
704 Category does not change."

705 (67) In IBC, Section 3411.1, the exception is deleted and replaced with the following:
706 "Exception: Type B dwelling or sleeping units required by Section 1107 of this code are not
707 required to be provided in existing buildings and facilities unless being altered or undergoing a
708 change of occupancy classification."

709 (68) The following referenced standard is added under NFPA in IBC, Chapter 35:

710 "Referenced in code

| | | | |
|-----|---------------|---|-----------------------|
| 711 | <u>Number</u> | <u>Title</u> | <u>Section number</u> |
| 712 | <u>720-09</u> | <u>Standard for the Installation of</u> | <u>907.9</u> |
| 713 | | <u>Carbon Monoxide (CO) Detection and</u> | |
| 714 | | <u>Warning Equipment"</u> | |

715 (69) The following referenced standard is added under UL in IBC, Chapter 35:
716 "Referenced in code

| | | | |
|-----|------------------|---|-----------------------|
| 717 | <u>Number</u> | <u>Title</u> | <u>Section number</u> |
| 718 | <u>2034-2008</u> | <u>Standard of Single- and</u> | <u>907.9</u> |
| 719 | | <u>Multiple-station Carbon Monoxide Alarms"</u> | |

720 **Section 202. Statewide Amendments to the IRC.**

721 The following are adopted as amendments to the IRC to be applicable statewide:

722 (1) The statewide amendments to the following which may be applied to detached one
723 and two family dwellings and multiple single family dwellings shall be applicable to the
724 corresponding provisions of the IRC:

- 725 (a) IBC under State Construction Code, Section 201;
- 726 (b) IPC under State Construction Code, Section 203;
- 727 (c) IMC under State Construction Code, Section 204;
- 728 (d) IFGC under State Construction Code, Section 205;
- 729 (e) NEC under State Construction Code, Section 206; and
- 730 (f) IECC under State Construction Code, Section 207.

731 (2) In IRC, Section 109:

732 (a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant
733 exterior wall envelope inspections. An inspection shall be made of the weather-resistant
734 exterior wall envelope as required by Section R703.1 and flashings as required by Section
735 R703.8 to prevent water from entering the weather-resistive barrier."

736 (b) The remaining sections are renumbered as follows: R109.1.6 Other inspections;
737 R109.1.6.1 Fire-and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced
738 masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection;

739 and R109.1.7 Final inspection.

740 (3) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice
741 to owner. Upon notice from the building official that work on any building or structure is
742 being prosecuted contrary to the provisions of this code or other pertinent laws or ordinances
743 or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop
744 work order shall be in writing and shall be given to the owner of the property involved, or to
745 the owner's agent or to the person doing the work; and shall state the conditions under which
746 work will be permitted to resume."

747 (4) In IRC, Section R202, the following definition is added: "CERTIFIED
748 BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to
749 test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction
750 under Utah Code, Subsection 19-4-104(4)."

751 (5) In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced
752 with the following: "CROSS CONNECTION. Any physical connection or potential
753 connection or arrangement between two otherwise separate piping systems, one of which
754 contains potable water and the other either water of unknown or questionable safety or steam,
755 gas, or chemical, whereby there exists the possibility for flow from one system to the other,
756 with the direction of flow depending on the pressure differential between the two systems (see
757 "Backflow, Water Distribution")."

758 (6) In IRC, Section R202, the definition of "Potable Water" is deleted and replaced
759 with the following: "POTABLE WATER. Water free from impurities present in amounts
760 sufficient to cause disease or harmful physiological effects and conforming to the Utah Code,
761 Title 19, Chapters 4 and 5, and the regulations of the public health authority having
762 jurisdiction."

763 (7) IRC, Figure R301.2(5), is deleted and replaced with Table R301.2(5a) and Table
764 R301.2(5b) as follows:

765 "TABLE NO. R301.2(5a)

766 STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

H.B. 45**Enrolled Copy**

| | <u>COUNTY</u> | <u>P.</u> | <u>S</u> | <u>A.</u> |
|-----|-------------------|-----------|-----------|------------|
| 767 | | | | |
| 768 | <u>Beaver</u> | <u>43</u> | <u>63</u> | <u>6.2</u> |
| 769 | <u>Box Elder</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 770 | <u>Cache</u> | <u>50</u> | <u>63</u> | <u>4.5</u> |
| 771 | <u>Carbon</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 772 | <u>Daggett</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |
| 773 | <u>Davis</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 774 | <u>Duchesne</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |
| 775 | <u>Emery</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 776 | <u>Garfield</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 777 | <u>Grand</u> | <u>36</u> | <u>63</u> | <u>6.5</u> |
| 778 | <u>Iron</u> | <u>43</u> | <u>63</u> | <u>5.8</u> |
| 779 | <u>Juab</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 780 | <u>Kane</u> | <u>36</u> | <u>63</u> | <u>5.7</u> |
| 781 | <u>Millard</u> | <u>43</u> | <u>63</u> | <u>5.3</u> |
| 782 | <u>Morgan</u> | <u>57</u> | <u>63</u> | <u>4.5</u> |
| 783 | <u>Piute</u> | <u>43</u> | <u>63</u> | <u>6.2</u> |
| 784 | <u>Rich</u> | <u>57</u> | <u>63</u> | <u>4.1</u> |
| 785 | <u>Salt Lake</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 786 | <u>San Juan</u> | <u>43</u> | <u>63</u> | <u>6.5</u> |
| 787 | <u>Sanpete</u> | <u>43</u> | <u>63</u> | <u>5.2</u> |
| 788 | <u>Sevier</u> | <u>43</u> | <u>63</u> | <u>6.0</u> |
| 789 | <u>Summit</u> | <u>86</u> | <u>63</u> | <u>5.0</u> |
| 790 | <u>Tooele</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 791 | <u>Uintah</u> | <u>43</u> | <u>63</u> | <u>7.0</u> |
| 792 | <u>Utah</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |
| 793 | <u>Wasatch</u> | <u>86</u> | <u>63</u> | <u>5.0</u> |
| 794 | <u>Washington</u> | <u>29</u> | <u>63</u> | <u>6.0</u> |

| | | | | |
|-----|--------------|-----------|-----------|------------|
| 795 | <u>Wayne</u> | <u>36</u> | <u>63</u> | <u>6.5</u> |
| 796 | <u>Weber</u> | <u>43</u> | <u>63</u> | <u>4.5</u> |

TABLE NO. R301.2(5b)

RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS(2)

| | | | <u>Roof Snow</u> | <u>Ground Snow</u> |
|-----|-------------------------|------------------|-------------------|--------------------|
| | | | <u>Load (PSF)</u> | <u>Load (PSF)</u> |
| 801 | <u>Beaver County</u> | | | |
| 802 | <u>Beaver</u> | <u>5,920 ft.</u> | <u>43</u> | <u>62</u> |
| 803 | <u>Box Elder County</u> | | | |
| 804 | <u>Brigham City</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 805 | <u>Tremonton</u> | <u>4,290 ft.</u> | <u>30</u> | <u>43</u> |
| 806 | <u>Cache County</u> | | | |
| 807 | <u>Logan</u> | <u>4,530 ft.</u> | <u>35</u> | <u>50</u> |
| 808 | <u>Smithfield</u> | <u>4,595 ft.</u> | <u>35</u> | <u>50</u> |
| 809 | <u>Carbon County</u> | | | |
| 810 | <u>Price</u> | <u>5,550 ft.</u> | <u>30</u> | <u>43</u> |
| 811 | <u>Daggett County</u> | | | |
| 812 | <u>Manila</u> | <u>5,377 ft.</u> | <u>30</u> | <u>43</u> |
| 813 | <u>Davis County</u> | | | |
| 814 | <u>Bountiful</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 815 | <u>Farmington</u> | <u>4,270 ft.</u> | <u>30</u> | <u>43</u> |
| 816 | <u>Layton</u> | <u>4,400 ft.</u> | <u>30</u> | <u>43</u> |
| 817 | <u>Fruit Heights</u> | <u>4,500 ft.</u> | <u>40</u> | <u>57</u> |
| 818 | <u>Duchesne County</u> | | | |
| 819 | <u>Duchesne</u> | <u>5,510 ft.</u> | <u>30</u> | <u>43</u> |
| 820 | <u>Roosevelt</u> | <u>5,104 ft.</u> | <u>30</u> | <u>43</u> |
| 821 | <u>Emery County</u> | | | |
| 822 | <u>Castledale</u> | <u>5,660 ft.</u> | <u>30</u> | <u>43</u> |

H.B. 45**Enrolled Copy**

| | | | | |
|-----|-------------------------|------------------|-----------|-----------|
| 823 | <u>Green River</u> | <u>4,070 ft.</u> | <u>25</u> | <u>36</u> |
| 824 | <u>Garfield County</u> | | | |
| 825 | <u>Panguitch</u> | <u>6,600 ft.</u> | <u>30</u> | <u>43</u> |
| 826 | <u>Grand County</u> | | | |
| 827 | <u>Moab</u> | <u>3,965 ft.</u> | <u>25</u> | <u>36</u> |
| 828 | <u>Iron County</u> | | | |
| 829 | <u>Cedar City</u> | <u>5,831 ft.</u> | <u>30</u> | <u>43</u> |
| 830 | <u>Juab County</u> | | | |
| 831 | <u>Nephi</u> | <u>5,130 ft.</u> | <u>30</u> | <u>43</u> |
| 832 | <u>Kane County</u> | | | |
| 833 | <u>Kanab</u> | <u>5,000 ft.</u> | <u>25</u> | <u>36</u> |
| 834 | <u>Millard County</u> | | | |
| 835 | <u>Fillmore</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 836 | <u>Delta</u> | <u>4,623 ft.</u> | <u>30</u> | <u>43</u> |
| 837 | <u>Morgan County</u> | | | |
| 838 | <u>Morgan</u> | <u>5,064 ft.</u> | <u>40</u> | <u>57</u> |
| 839 | <u>Piute County</u> | | | |
| 840 | <u>Piute</u> | <u>5,996 ft.</u> | <u>30</u> | <u>43</u> |
| 841 | <u>Rich County</u> | | | |
| 842 | <u>Woodruff</u> | <u>6,315 ft.</u> | <u>40</u> | <u>57</u> |
| 843 | <u>Salt Lake County</u> | | | |
| 844 | <u>Murray</u> | <u>4,325 ft.</u> | <u>30</u> | <u>43</u> |
| 845 | <u>Salt Lake City</u> | <u>4,300 ft.</u> | <u>30</u> | <u>43</u> |
| 846 | <u>Sandy</u> | <u>4,500 ft.</u> | <u>30</u> | <u>43</u> |
| 847 | <u>West Jordan</u> | <u>4,375 ft.</u> | <u>30</u> | <u>43</u> |
| 848 | <u>West Valley</u> | <u>4,250 ft.</u> | <u>30</u> | <u>43</u> |
| 849 | <u>San Juan County</u> | | | |
| 850 | <u>Blanding</u> | <u>6,200 ft.</u> | <u>30</u> | <u>43</u> |

Enrolled Copy**H.B. 45**

| | | | | |
|-----|-----------------------|------------------|------------|------------|
| 851 | <u>Monticello</u> | <u>6,820 ft.</u> | <u>35</u> | <u>50</u> |
| 852 | <u>Sanpete County</u> | | | |
| 853 | <u>Fairview</u> | <u>6,750 ft.</u> | <u>35</u> | <u>50</u> |
| 854 | <u>Mt. Pleasant</u> | <u>5,900 ft.</u> | <u>30</u> | <u>43</u> |
| 855 | <u>Manti</u> | <u>5,740 ft.</u> | <u>30</u> | <u>43</u> |
| 856 | <u>Ephraim</u> | <u>5,540 ft.</u> | <u>30</u> | <u>43</u> |
| 857 | <u>Gunnison</u> | <u>5,145 ft.</u> | <u>30</u> | <u>43</u> |
| 858 | <u>Sevier County</u> | | | |
| 859 | <u>Salina</u> | <u>5,130 ft.</u> | <u>30</u> | <u>43</u> |
| 860 | <u>Richfield</u> | <u>5,270 ft.</u> | <u>30</u> | <u>43</u> |
| 861 | <u>Summit County</u> | | | |
| 862 | <u>Coalville</u> | <u>5,600 ft.</u> | <u>60</u> | <u>86</u> |
| 863 | <u>Kamas</u> | <u>6,500 ft.</u> | <u>70</u> | <u>100</u> |
| 864 | <u>Park City</u> | <u>6,800 ft.</u> | <u>100</u> | <u>142</u> |
| 865 | <u>Park City</u> | <u>8,400 ft.</u> | <u>162</u> | <u>231</u> |
| 866 | <u>Summit Park</u> | <u>7,200 ft.</u> | <u>90</u> | <u>128</u> |
| 867 | <u>Tooele County</u> | | | |
| 868 | <u>Tooele</u> | <u>5,100 ft.</u> | <u>30</u> | <u>43</u> |
| 869 | <u>Uintah County</u> | | | |
| 870 | <u>Vernal</u> | <u>5,280 ft.</u> | <u>30</u> | <u>43</u> |
| 871 | <u>Utah County</u> | | | |
| 872 | <u>American Fork</u> | <u>4,500 ft.</u> | <u>30</u> | <u>43</u> |
| 873 | <u>Orem</u> | <u>4,650 ft.</u> | <u>30</u> | <u>43</u> |
| 874 | <u>Pleasant Grove</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 875 | <u>Provo</u> | <u>5,000 ft.</u> | <u>30</u> | <u>43</u> |
| 876 | <u>Spanish Fork</u> | <u>4,720 ft.</u> | <u>30</u> | <u>43</u> |
| 877 | <u>Wasatch County</u> | | | |
| 878 | <u>Heber</u> | <u>5,630 ft.</u> | <u>60</u> | <u>86</u> |

| | | | | |
|-----|--------------------------|------------------|---------------|-----------|
| 879 | <u>Washington County</u> | | | |
| 880 | <u>Central</u> | <u>5,209 ft.</u> | <u>25</u> | <u>36</u> |
| 881 | <u>Dameron</u> | <u>4,550 ft.</u> | <u>25</u> | <u>36</u> |
| 882 | <u>Leeds</u> | <u>3,460 ft.</u> | <u>20</u> | <u>29</u> |
| 883 | <u>Rockville</u> | <u>3,700 ft.</u> | <u>25</u> | <u>36</u> |
| 884 | <u>Santa Clara</u> | <u>2,850 ft.</u> | <u>15 (1)</u> | <u>21</u> |
| 885 | <u>St. George</u> | <u>2,750 ft.</u> | <u>15 (1)</u> | <u>21</u> |
| 886 | <u>Wayne County</u> | | | |
| 887 | <u>Loa</u> | <u>7,080 ft.</u> | <u>30</u> | <u>43</u> |
| 888 | <u>Hanksville</u> | <u>4,308 ft.</u> | <u>25</u> | <u>36</u> |
| 889 | <u>Weber County</u> | | | |
| 890 | <u>North Ogden</u> | <u>4,500 ft.</u> | <u>40</u> | <u>57</u> |
| 891 | <u>Ogden</u> | <u>4,350 ft.</u> | <u>30</u> | <u>43</u> |

892 NOTES

893 (1) The IRC requires a minimum live load - See R301.6.

894 (2) This table is informational only in that actual site elevations may vary. Table is only valid
 895 if site elevation is within 100 feet of the listed elevation."

896 (8) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah
 897 Snow Loads. The ground snow load, P_g , to be used in the determination of design snow loads
 898 for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2$
 899 + $S^2(A-A_o)^2)^{0.5}$ for A greater than A_o , and $P_g = P_o$ for A less than or equal to A_o ."

900 WHERE:

901 P_g = Ground snow load at a given elevation (psf);

902 P_o = Base ground snow load (psf) from Table No. R301.2(5a);

903 S = Change in ground snow load with elevation (psf/100 ft.) From Table No. R301.2(5a);

904 A = Elevation above sea level at the site (ft./1,000);

905 A_o = Base ground snow elevation from Table R301.2(5a) (ft./1,000).

906 The building official may round the roof snow load to the nearest 5 psf. The ground snow

907 load, P_g , may be adjusted by the building official when a licensed engineer or architect submits
908 data substantiating the adjustments. A record of such action together with the substantiating
909 data shall be provided to the division for a permanent record.

910 The building official may also directly adopt roof snow loads in accordance with Table
911 R301.2(5b), provided the site is no more than 100 ft. higher than the listed elevation.

912 Where the minimum roof live load in accordance with Table R301.6 is greater than the design
913 roof snow load, such roof live load shall be used for design, however, it shall not be reduced to
914 a load lower than the design roof snow load. Drifting need not be considered for roof snow
915 loads less than 20 psf."

916 (9) In IRC, Section R302.2, the words "Exception: A" are deleted and replaced with
917 the following: "Exceptions: 1. A common 2-hour fire-resistance-rated wall is permitted for
918 townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in
919 the cavity of the common wall. Electrical installation shall be installed in accordance with
920 Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with
921 Section R302.4.

922 2. In buildings equipped with an automatic residential fire sprinkler system, a".

923 (10) In IRC, Section R302.2.4, a new exception 6 is added as follows: "6. Townhouses
924 separated by a common 2-hour fire-resistance-rated wall as provided in Section R302.2."

925 (11) IRC, Sections R311.7.4 through R311.7.4.3, are deleted and replaced with the
926 following: "R311.7.4 Stair treads and risers. R311.7.4.1 Riser height. The maximum riser
927 height shall be 8 inches (203 mm). The riser shall be measured vertically between leading
928 edges of the adjacent treads. The greatest riser height within any flight of stairs shall not
929 exceed the smallest by more than 3/8 inch (9.5 mm).

930 R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread
931 depth shall be measured horizontally between the vertical planes of the foremost projection of
932 adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within
933 any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder
934 treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point

935 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a
936 minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the
937 greatest winder tread depth at the 12 inch (305 mm) walk line shall not exceed the smallest by
938 more than 3/8 inch (9.5 mm).

939 R311.7.4.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater
940 than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4
941 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection
942 shall not exceed the smallest nosing projection by more than 3/8 inches (9.5 mm) between two
943 stories, including the nosing at the level of floors and landings. Beveling of nosing shall not
944 exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading
945 edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical.
946 Open risers are permitted, provided that the opening between treads does not permit the
947 passage of a 4-inch diameter (102 mm) sphere.

948 Exceptions.

949 1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
950 2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches
951 (762 mm) or less."

952 (12) In IRC, Section R312.2, the words "adjacent fixed seating" are deleted.

953 (13) IRC, Section R313, is deleted.

954 (14) IRC, Section R315.1, is deleted and replaced with the following: "R315.1 Carbon
955 monoxide alarms. For new construction, a listed carbon monoxide alarm shall be installed on
956 each habitable level of dwelling units within which fuel-fired appliances are installed and in
957 dwelling units that have attached garages."

958 (15) IRC, Section R315.3, is deleted and replaced with the following: "R315.3 Alarm
959 requirements. Listed single- and multiple-station carbon monoxide alarms shall comply with
960 UL 2034 and shall be installed in accordance with the provision of this code and NFPA 720."

961 (16) In IRC, Section R403.1.6, a new Exception 4 is added as follows: "4. When
962 anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be placed

963 with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from
964 each end of each plate section at interior bearing walls, interior braced wall lines and at all
965 exterior walls."

966 (17) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2 and
967 Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816 mm)
968 apart, anchor bolts may be placed with a minimum of two bolts per plate section located not
969 less than 4 inches (102 mm) from each end of each plate section at interior bearing walls,
970 interior braced wall lines and at all exterior walls."

971 (18) In IRC, Section R404.1, a new exception is added as follows: "Exception: As an
972 alternative to complying with Sections R404.1 through R404.1.5.3, concrete and masonry
973 foundation walls may be designed in accordance with IBC Sections 1807.1.5 and 1807.1.6 as
974 amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

975 (19) IRC, Sections R612.2 through R612.4.2, are deleted.

976 (20) IRC, Chapter 11, is deleted and replaced with Chapter 11 of the 2006
977 International Residential Code and Chapter 4 of the 2006 International Energy Conservation
978 Code.

979 (21) IRC, Section M1411.6, is deleted.

980 (22) In IRC, Section M1502.4.4.1, the words "25 feet (7620 mm)" are deleted and
981 replaced with "35 feet (10668 mm)".

982 (23) A new IRC, Section G2401.2, is added as follows: "G2401.2 Meter Protection.
983 Fuel gas services shall be in an approved location and/or provided with structures designed to
984 protect the fuel gas meter and surrounding piping from physical damage, including falling,
985 moving, or migrating ice and snow. If an added structure is used, it must provide access for
986 service and comply with the IBC or the IRC."

987 (24) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water
988 supply. Where a potable public water supply is not available, individual sources of potable
989 water supply shall be utilized provided that the source has been developed in accordance with
990 Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural

991 Resources, Division of Water Rights. In addition, the quality of the water shall be approved by
992 the local health department having jurisdiction."

993 (25) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required.
994 Every building in which plumbing fixtures are installed and all premises having drainage
995 pipng shall be connected to a public sewer where the sewer is within 300 feet of the property
996 line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal
997 system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered
998 by the Department of Environmental Quality, Division of Water Quality."

999 (26) In IRC, Section P2801.7, the word "townhouses" is deleted.

1000 (27) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow
1001 assembly testing. The premise owner or his designee shall have backflow prevention
1002 assemblies operation tested at the time of installation, repair, and relocation and at least on an
1003 annual basis thereafter, or more frequently as required by the authority having jurisdiction.
1004 Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The
1005 assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the
1006 Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the
1007 Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle
1008 Backflow Preventer, and Reduced Pressure Detector Assembly."

1009 (28) IRC, Table P2902.3, is deleted and replaced with the following:

1010 "TABLE P2902.3

1011 General Methods of Protection

| 1012 <u>Assembly</u> | <u>Degree</u> | <u>Application</u> | <u>Installation Criteria</u> |
|--------------------------------|----------------|------------------------|------------------------------|
| 1013 <u>(applicable</u> | <u>of</u> | | |
| 1014 <u>standard)</u> | <u>Hazard</u> | | |
| 1015 <u>Reduced</u> | <u>High or</u> | <u>Backpressure or</u> | <u>a. The bottom of each</u> |
| 1016 <u>Pressure</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>RP assembly shall</u> |
| 1017 <u>Principle Backflow</u> | | <u>1/2" - 16"</u> | <u>be a minimum of 12</u> |
| 1018 <u>Preventer (AWWA</u> | | | <u>inches above the</u> |

Enrolled Copy

H.B. 45

1019 C511, USC-FCCCHR,
1020 ASSE 1013
1021 CSA CNA/CSA-B64.4)
1022 and Reduced Pressure
1023 Detector Assembly
1024 (ASSE 1047, USC-
1025 FCCCHR)

ground or floor.
b. RP assemblies shall
NOT be installed in
a pit.
c. The relief valve on
each RP assembly
shall not be
directly connected
to any waste
disposal line,
including sanitary
sewer, storm drains,
or vents.

1026
1027
1028
1029
1030
1031

d. The assembly shall
be installed in a
horizontal position
only unless listed
or approved for
vertical installation.

1038 Double Check
1039 installed in a
1040 Backflow
1041 Prevention
1042 Assembly
1043 (AWWA C510,
1044 USC-FCCCHR,
1045 ASSE 1015)
1046 Double Check

Low Backpressure or

Backsiphonage
1/2" - 16"

a. If
pit, the DC assembly
shall be installed
with a minimum of
12 inches of
clearance between
all sides of the
vault

| | | | | |
|------|---------------------------|----------------|----------------------|------------------------------|
| 1047 | <u>including</u> | | | |
| 1048 | <u>Detector Assembly</u> | | | <u>the floor and roof</u> |
| 1049 | <u>Backflow Preventer</u> | | | <u>or ceiling with</u> |
| 1050 | <u>(ASSE 1048,</u> | | | <u>adequate room for</u> |
| 1051 | <u>USC-FCCCHR)</u> | | | <u>testing and</u> |
| 1052 | | | | <u>maintenance.</u> |
| 1053 | | | | <u>b. Shall be installed</u> |
| 1054 | | | | <u>in a horizontal</u> |
| 1055 | | | | <u>position unless</u> |
| 1056 | | | | <u>listed or approved</u> |
| 1057 | | | | <u>for vertical</u> |
| 1058 | | | | <u>installation.</u> |
| 1059 | <u>Pressure</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>a. Shall not be</u> |
| 1060 | <u>Vacuum</u> | <u>Low</u> | <u>1/2" - 2"</u> | <u>installed in an</u> |
| 1061 | <u>Breaker</u> | | | <u>area that could be</u> |
| 1062 | <u>Assembly</u> | | | <u>subjected to</u> |
| 1063 | <u>(ASSE 1020,</u> | | | <u>backpressure or</u> |
| 1064 | <u>USC-FCCCHR)</u> | | | <u>back drainage</u> |
| 1065 | | | | <u>conditions.</u> |
| 1066 | | | | <u>b. Shall be installed</u> |
| 1067 | | | | <u>a minimum of 12</u> |
| 1068 | | | | <u>inches above all</u> |
| 1069 | | | | <u>downstream piping</u> |
| 1070 | | | | <u>and the highest</u> |
| 1071 | | | | <u>point of use.</u> |
| 1072 | | | | <u>c. Shall not be</u> |
| 1073 | | | | <u>installed below</u> |
| 1074 | | | | <u>ground or in a</u> |

| | | | | |
|------|---------------------|----------------|----------------------|-------------------------------|
| 1075 | | | | <u>vault or pit.</u> |
| 1076 | | | | <u>d. Shall be installed</u> |
| 1077 | | | | <u>in a vertical position</u> |
| 1078 | | | | <u>only.</u> |
| 1079 | <u>Spill</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>a. Shall not be</u> |
| 1080 | <u>Resistant</u> | <u>Low</u> | <u>1/4" - 2"</u> | <u>installed in an</u> |
| 1081 | <u>Vacuum</u> | | | <u>area that could</u> |
| 1082 | <u>Breaker</u> | | | <u>be subjected to</u> |
| 1083 | <u>(ASSE 1056,</u> | | | <u>backpressure or</u> |
| 1084 | <u>USC-FCCCHR)</u> | | | <u>back drainage</u> |
| 1085 | | | | <u>conditions.</u> |
| 1086 | | | | <u>b. Shall be installed</u> |
| 1087 | | | | <u>a minimum of 12</u> |
| 1088 | | | | <u>inches above all</u> |
| 1089 | | | | <u>downstream piping</u> |
| 1090 | | | | <u>and the highest</u> |
| 1091 | | | | <u>point of use.</u> |
| 1092 | | | | <u>c. Shall not be</u> |
| 1093 | | | | <u>installed below</u> |
| 1094 | | | | <u>ground or in a</u> |
| 1095 | | | | <u>vault or pit.</u> |
| 1096 | | | | <u>d. Shall be installed</u> |
| 1097 | | | | <u>in a vertical position</u> |
| 1098 | | | | <u>only.</u> |
| 1099 | <u>General</u> | | | <u>The assembly owner,</u> |
| 1100 | <u>Installation</u> | | | <u>when necessary,</u> |
| 1101 | <u>Criteria</u> | | | <u>shall provide devices</u> |
| 1102 | | | | <u>or structures to</u> |

H.B. 45

Enrolled Copy

1103 facilitate testing,
1104 repair,
1105 and/or maintenance
1106 and
1107 to ensure the safety of
1108 the backflow
1109 technician.
1110 Assemblies shall not
1111 be installed more than
1112 five feet off the floor
1113 unless a permanent
1114 platform is installed.
1115 The body of the
1116 assembly shall not be
1117 closer than 12 inches
1118 to any wall, ceiling or
1119 encumbrance, and
1120 shall be accessible for
1121 testing, repair and/or
1122 maintenance.
1123 In cold climates,
1124 assemblies shall be
1125 protected from
1126 freezing by a means
1127 acceptable to the code
1128 official.
1129 Assemblies shall be
1130 maintained as an intact

1131 assembly."

1132 (29) IRC, Table 2902.3a, is added as follows:

1133 "TABLE 2902.3a

1134 Specialty Backflow Devices for low hazard use only

| 1135 | <u>Device</u> | <u>Degree of</u> | <u>Application</u> | <u>Applicable</u> |
|------|---------------------------|------------------|-------------------------------------|----------------------------|
| 1136 | | <u>Hazard</u> | | <u>Standard</u> |
| 1137 | <u>Air Gap</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>See Table P2902.3.1</u> |
| 1138 | | <u>Low</u> | | <u>ASME A112.1.2</u> |
| 1139 | <u>Antisiphon-type</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1002</u> |
| 1140 | <u>Water Closet Flush</u> | | | <u>CSA CAN/</u> |
| 1141 | <u>Tank Ball Cock</u> | | | <u>CSA-B125</u> |
| 1142 | <u>Atmospheric</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>ASSE 1001</u> |
| 1143 | <u>Vacuum</u> | <u>Low</u> | <u>a. Shall not be</u> | |
| 1144 | <u>USC-FCCCHR,</u> | | | |
| 1145 | <u>Breaker</u> | | <u>installed in an</u> | <u>CSA</u> |
| 1146 | | | <u>area that could be</u> | <u>CAN/CSA-B64.1.1</u> |
| 1147 | | | <u>subjected to</u> | |
| 1148 | | | <u>backpressure or back</u> | |
| 1149 | | | <u>drainage conditions.</u> | |
| 1150 | | | <u>b. Shall not be installed</u> | |
| 1151 | | | <u>where it may be subjected</u> | |
| 1152 | | | <u>to continuous pressure</u> | |
| 1153 | | | <u>for more than 12 consecutive</u> | |
| 1154 | | | <u>hours at any time.</u> | |
| 1155 | | | <u>c. Shall be installed a</u> | |
| 1156 | | | <u>minimum of six inches above</u> | |
| 1157 | | | <u>all downstream piping and</u> | |
| 1158 | | | <u>the highest point of use.</u> | |

| | | | | |
|------|----------------------------|--------------------|--------------------------------------|--------------------|
| 1159 | | | <u>d. Shall be installed on the</u> | |
| 1160 | | | <u>discharge (downstream) side</u> | |
| 1161 | | | <u>of any valves.</u> | |
| 1162 | | | <u>e. The AVB shall be installed</u> | |
| 1163 | | | <u>in a vertical position only.</u> | |
| 1164 | <u>Dual check valve</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1024</u> |
| 1165 | <u>Backflow Preventer</u> | | <u>or Backpressure</u> | |
| 1166 | | | <u>1/4" - 1"</u> | |
| 1167 | <u>Backflow Preventer</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1012</u> |
| 1168 | <u>with Intermediate</u> | <u>Residential</u> | <u>or Backpressure</u> | <u>CSA CAN/</u> |
| 1169 | <u>Atmospheric Vent</u> | <u>Boiler</u> | <u>1/4" - 3/4"</u> | <u>CSA-B64.3</u> |
| 1170 | <u>Dual check valve</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1022</u> |
| 1171 | <u>type Backflow</u> | | <u>or Backpressure</u> | |
| 1172 | <u>Preventer for</u> | | <u>1/4" - 3/8"</u> | |
| 1173 | <u>Carbonated Beverage</u> | | | |
| 1174 | <u>Dispensers/Post</u> | | | |
| 1175 | <u>Mix Type</u> | | | |
| 1176 | <u>Hose-connection</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1011</u> |
| 1177 | <u>Vacuum Breaker</u> | | <u>1/2", 3/4", 1"</u> | <u>CSA CAN/</u> |
| 1178 | | | | <u>CSA-B64.2</u> |
| 1179 | <u>Vacuum Breaker</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1019</u> |
| 1180 | <u>Wall Hydrants,</u> | | <u>3/4", 1"</u> | <u>CSA CAN/</u> |
| 1181 | <u>Frost-resistant,</u> | | | <u>CSA-B64.2.2</u> |
| 1182 | <u>Automatic Draining</u> | | | |
| 1183 | <u>Type</u> | | | |
| 1184 | <u>Laboratory Faucet</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1035</u> |
| 1185 | <u>Backflow Preventer</u> | | | <u>CSA CAN/</u> |
| 1186 | | | | <u>CSA-B64.7</u> |

1187 Hose Connection Low Backsiphonage ASSE 1052
 1188 Backflow Preventer 1/2" - 1"

1189 Installation Guidelines: The above specialty devices shall be installed in accordance with their
 1190 listing and the manufacturer's instructions and the specific provisions of this chapter."

1191 (30) In IRC, Section P3103.6, the following sentence is added at the end of the
 1192 paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the
 1193 wall with an elbow pointing downward."

1194 (31) In IRC, Section P3104.4, the following sentence is added at the end of the
 1195 paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain
 1196 and floor sink installations when installed below grade in accordance with Chapter 30, and
 1197 Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

1198 (32) In IRC, Section E3902.11, the following words are deleted: "family rooms, dining
 1199 rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways,
 1200 and similar rooms or areas".

1201 (33) IRC, Chapter 44, is amended by adding the following reference standard:

| | | | |
|------|-------------------|--|---------------------------|
| 1202 | <u>"Standard</u> | | |
| 1203 | <u>reference</u> | | <u>Referenced in code</u> |
| 1204 | <u>number</u> | <u>Title</u> | <u>Section number</u> |
| 1205 | <u>USC-</u> | <u>Foundation for Cross-Connection</u> | <u>Table P2902.3</u> |
| 1206 | <u>FCCCHR</u> | <u>Control and Hydraulic Research</u> | |
| 1207 | <u>9th</u> | <u>University of Southern California</u> | |
| 1208 | <u>Edition</u> | <u>Kaprielian Hall 300</u> | |
| 1209 | <u>Manual</u> | <u>Los Angeles CA 90089-2531</u> | |
| 1210 | <u>of Cross</u> | | |
| 1211 | <u>Connection</u> | | |
| 1212 | <u>Control"</u> | | |

1213 (34) In IRC, Chapter 44, the following standard is added under NFPA as follows:

1214 "Standard

| | | | |
|------|------------------|--|---------------------------|
| 1215 | <u>reference</u> | | <u>Referenced in code</u> |
| 1216 | <u>number</u> | <u>Title</u> | <u>section number</u> |
| 1217 | <u>720-09</u> | <u>Standard for the Installation</u> | <u>R315.3</u> |
| 1218 | | <u>of Carbon Monoxide (CO) Detection</u> | |
| 1219 | | <u>and Warning Equipment"</u> | |

1220 (35) IRC, Appendix O, Gray Water Recycling Systems, is deleted and replaced with
 1221 Appendix C of the International Plumbing Code as amended by the State Construction Code.

1222 **Section 203. Statewide Amendments to the IPC.**

1223 The following are adopted as amendments to the IPC to be applicable statewide:

1224 (1) A new IPC, Section 101.2, is added as follows: "For clarification, the International
 1225 Private Sewage Disposal Code is not part of the plumbing code even though it is in the same
 1226 printed volume."

1227 (2) In IPC, Section 202, the definition for "Backflow Backpressure, Low Head" is
 1228 deleted.

1229 (3) In IPC, Section 202, the following definition is added: "Certified Backflow
 1230 Preventer Assembly Tester. A person who has shown competence to test Backflow prevention
 1231 assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection
 1232 19-4-104(4)."

1233 (4) In IPC, Section 202, the definition for "Cross Connection" is deleted and replaced
 1234 with the following: "Cross Connection. Any physical connection or potential connection or
 1235 arrangement between two otherwise separate piping systems, one of which contains potable
 1236 water and the other either water of unknown or questionable safety or steam, gas, or chemical,
 1237 whereby there exists the possibility for flow from one system to the other, with the direction of
 1238 flow depending on the pressure differential between the two systems (see "Backflow")."

1239 (5) In IPC, Section 202, the definition for "Potable Water" is deleted and replaced with
 1240 the following: "Potable Water. Water free from impurities present in amounts sufficient to
 1241 cause disease or harmful physiological effects and conforming to the Utah Code, Title 19,
 1242 Chapters 4 and 5, and the regulations of the public health authority having jurisdiction."

1243 (6) In IPC, Table 303.4, the item listed as "Backflow prevention devises" is modified
1244 as follows:

1245 (a) in the Third-Party Certified field, after the word "Required" add "See footnote 1";

1246 (b) in the Third-Party Tested field the following is added: "Required see footnote 1";

1247 and

1248 (c) a new footnote 1 is added as follows: "1. Third party certification will consist of
1249 any combination of two certifications, laboratory or field. Acceptable third party laboratory
1250 certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides
1251 the only field testing of backflow protection assemblies. Also see www.drinkingwater.utah.gov
1252 and Division of Drinking Water Rule, Utah Administrative Code, R309-305-6."

1253 (7) IPC, Section 304.3, Meter Boxes, is deleted.

1254 (8) IPC, Section 311.1, is deleted.

1255 (9) IPC, Sections 312.10 through 312.10.2, are deleted and replaced with the
1256 following: "312.10 Backflow assembly testing. The premise owner or his designee shall have
1257 backflow prevention assemblies operation tested at the time of installation, repair, and
1258 relocation and at least on an annual basis thereafter, or more frequently as required by the
1259 authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer
1260 Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant
1261 Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow
1262 Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced
1263 Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly."

1264 (10) In IPC, Section 403.1, a new footnote g is added as follows: "FOOTNOTE: g.
1265 When provided, in public toilet facilities there shall be an equal number of diaper changing
1266 facilities in male toilet rooms and female toilet rooms."

1267 (11) A new IPC, Section 406.4, is added as follows: "406.4 Automatic clothes washer
1268 safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in
1269 accordance with Section 504.7."

1270 (12) A new IPC, Section 412.5, is added as follows: "412.5 Public toilet rooms. All

1271 public toilet rooms shall be equipped with at least one floor drain."

1272 (13) In IPC, Section 504.7.2, the following is added at the end of the section: "When
1273 permitted by the code official, the pan drain may be directly connected to a soil stack, waste
1274 stack, or branch drain. The pan drain shall be individually trapped and vented as required in
1275 Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap
1276 shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044."

1277 (14) A new IPC, Section 504.7.3, is added as follows: "504.7.3 Pan Designation. A
1278 water heater pan shall be considered an emergency receptor designated to receive the
1279 discharge of water from the water heater only and shall not receive the discharge from any
1280 other fixtures, devises or equipment."

1281 (15) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual
1282 water supply. Where a potable public water supply is not available, individual sources of
1283 potable water supply shall be utilized provided that the source has been developed in
1284 accordance with Utah Code, Sections 73-3-1, 73-3-3, and 73-3-25, as administered by the
1285 Department of Natural Resources, Division of Water Rights. In addition, the quality of the
1286 water shall be approved by the local health department having jurisdiction. The source shall
1287 supply sufficient quantity of water to comply with the requirements of this chapter."

1288 (16) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are
1289 deleted.

1290 (17) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated
1291 metering faucets. Self closing or manually operated metering faucets shall provide a flow of
1292 water for at least 15 seconds without the need to reactivate the faucet."

1293 (18) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water
1294 pressure booster systems. Water pressure booster systems shall be provided as required by
1295 Section 606.5.1 through 606.5.11."

1296 (19) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited
1297 installation. In no case shall a booster pump be allowed that will lower the pressure in the
1298 public main to less than 20 psi."

1299 (20) IPC, Table 608.1, is deleted and replaced with the following:

1300 "TABLE 608.1

1301 General Methods of Protection

| <u>Assembly</u> | <u>Degree</u> | <u>Application</u> | <u>Installation Criteria</u> |
|----------------------------------|---------------------|-----------------------------|--|
| 1302 <u>(applicable</u> | 1303 <u>of</u> | | |
| 1304 <u>standard)</u> | 1304 <u>Hazard</u> | | |
| 1305 <u>Reduced</u> | 1305 <u>High or</u> | 1305 <u>Backpressure or</u> | 1305 <u>a. The bottom of each</u> |
| 1306 <u>Pressure</u> | 1306 <u>Low</u> | 1306 <u>Backsiphonage</u> | 1306 <u>RP assembly shall</u> |
| 1307 <u>Principle Backflow</u> | | 1307 <u>1/2" - 16"</u> | 1307 <u>be a minimum of 12</u> |
| 1308 <u>Preventer (AWWA</u> | | | 1308 <u>inches above the</u> |
| 1309 <u>C511, USC-FCCCHR,</u> | | | 1309 <u>ground or floor.</u> |
| 1310 <u>ASSE 1013</u> | | | 1310 <u>b. RP assemblies shall</u> |
| 1311 <u>CSA CNA/CSA-B64.4)</u> | | | 1311 <u>NOT be installed in</u> |
| 1312 <u>and Reduced Pressure</u> | | | 1312 <u>a pit.</u> |
| 1313 <u>Detector Assembly</u> | | | 1313 <u>c. The relief valve on</u> |
| 1314 <u>(ASSE 1047, USC-</u> | | | 1314 <u>each RP assembly</u> |
| 1315 <u>FCCCHR)</u> | | | 1315 <u>shall not be directly</u> |
| 1316 | | | 1316 <u>connected to any waste</u> |
| 1317 | | | 1317 <u>disposal line, including</u> |
| 1318 | | | 1318 <u>sanitary sewer, storm rains,</u> |
| 1319 | | | 1319 <u>or vents.</u> |
| 1320 | | | 1320 <u>d. The assembly shall be</u> |
| 1321 | | | 1321 <u>installed in a horizontal</u> |
| 1322 | | | 1322 <u>position only unless listed</u> |
| 1323 | | | 1323 <u>or approved for vertical</u> |
| 1324 | | | 1324 <u>installation.</u> |
| 1325 <u>Double Check</u> | 1325 <u>Low</u> | 1325 <u>Backpressure or</u> | 1325 <u>a. If installed in a</u> |
| 1326 <u>pit,</u> | | | |

H.B. 45

Enrolled Copy

| | | | | |
|------|---------------------------|----------------|----------------------|-----------------------------------|
| 1327 | <u>Backflow</u> | | <u>Backsiphonage</u> | <u>the DC assembly</u> |
| 1328 | <u>Prevention</u> | | <u>1/2" - 16"</u> | <u>shall be installed</u> |
| 1329 | <u>Assembly</u> | | | <u>with a minimum of</u> |
| 1330 | <u>(AWWA C510,</u> | | | <u>12 inches of</u> |
| 1331 | <u>USC-FCCCHR,</u> | | | <u>clearance between</u> |
| 1332 | <u>ASSE 1015)</u> | | | <u>all sides of the</u> |
| 1333 | <u>Double Check</u> | | | <u>vault including the</u> |
| 1334 | <u>Detector Assembly</u> | | | <u>floor and roof or</u> |
| 1335 | <u>Backflow Preventer</u> | | | <u>ceiling with adequate</u> |
| 1336 | <u>(ASSE 1048,</u> | | | <u>room for testing and</u> |
| 1337 | <u>USC-FCCCHR)</u> | | | <u>maintenance.</u> |
| 1338 | | | | <u>b. Shall be installed in a</u> |
| 1339 | | | | <u>horizontal position unless</u> |
| 1340 | | | | <u>listed or approved for</u> |
| 1341 | | | | <u>vertical installation.</u> |
| 1342 | <u>Pressure</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>a. Shall not be installed</u> |
| 1343 | <u>Vacuum</u> | <u>Low</u> | <u>1/2" - 2"</u> | <u>in an area that could be</u> |
| 1344 | <u>Breaker</u> | | | <u>subjected to</u> |
| 1345 | <u>Assembly</u> | | | <u>backpressure or</u> |
| 1346 | <u>(ASSE 1020,</u> | | | <u>back drainage</u> |
| 1347 | <u>USC-FCCCHR)</u> | | | <u>conditions.</u> |
| 1348 | | | | <u>b. Shall be installed a</u> |
| 1349 | | | | <u>minimum of 12 inches</u> |
| 1350 | | | | <u>above all downstream</u> |
| 1351 | | | | <u>pipng and the highest</u> |
| 1352 | <u>point</u> | | | <u>of use.</u> |
| 1353 | | | | <u>c. Shall not be installed</u> |
| 1354 | | | | <u>below ground or in a vault</u> |

1355
1356
1357
1358
1359
1360
1361
1362
1363
1364
1365
1366
1367
1368
1369
1370
1371
1372
1373
1374
1375
1376
1377
1378
1379
1380
1381
1382

Spill High or Backsiphonage
Resistant Low 1/4" - 2"
Vacuum
Breaker
(ASSE 1056,
USC-FCCCHR)

General
Installation
Criteria

or pit.
d. Shall be installed in a
vertical position only.
a. Shall not be
installed in an
area that could
be subjected to
backpressure or
back drainage
conditions.
b. Shall be installed a
minimum of 12 inches
above all downstream
pipng and the highest
of use.
c. Shall not be installed
below ground or in a vault
or pit.
d. Shall be installed in a
vertical position only.
The assembly owner,
when necessary, shall
provide devices or
structures to facilitate
testing, repair, and/or
maintenance and to ensure
the safety of the backflow
technician.

1383 Assemblies shall not be
 1384 installed more than five
 1385 feet off the floor unless a
 1386 permanent platform is
 1387 installed.
 1388 The body of the assembly
 1389 shall not be closer than 12
 1390 inches, to any wall, ceiling
 1391 or encumbrance, and shall
 1392 be accessible for testing,
 1393 repair and/or maintenance.
 1394 In cold climates,
 1395 assemblies
 1396 shall be protected from
 1397 freezing by a means
 1398 acceptable to the code
 1399 official.
 1400 Assemblies shall be
 1401 maintained as an intact
 1402 assembly."

1403 (21) IPC, Table 608.1.1, is added as follows:

1404 "TABLE 608.1.1

1405 Specialty Backflow Devices for low hazard use only

| | | | | |
|------|----------------|------------------|----------------------|---------------------------|
| 1406 | <u>Device</u> | <u>Degree of</u> | <u>Application</u> | <u>Applicable</u> |
| 1407 | | <u>Hazard</u> | | <u>Standard</u> |
| 1408 | | | | |
| 1409 | <u>Air Gap</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>See Table 608.15.1</u> |
| 1410 | | <u>Low</u> | | <u>ASME A112.1.2</u> |

Enrolled Copy**H.B. 45**

| | | | | |
|------|---------------------------|----------------|--------------------------------------|------------------------|
| 1411 | <u>Antisiphon-type</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1002</u> |
| 1412 | <u>Water Closet Flush</u> | | | <u>CSA CAN/</u> |
| 1413 | <u>Tank Ball Cock</u> | | | <u>CSA-B125</u> |
| 1414 | <u>Atmospheric</u> | <u>High or</u> | <u>Backsiphonage</u> | <u>ASSE 1001</u> |
| 1415 | <u>Vacuum</u> | <u>Low</u> | <u>a. Shall not be</u> | |
| 1416 | <u>USC-FCCCHR,</u> | | | |
| 1417 | <u>Breaker</u> | | <u>installed in an</u> | <u>CSA</u> |
| 1418 | | | <u>area that could be</u> | <u>CAN/CSA-B64.1.1</u> |
| 1419 | | | <u>subjected to</u> | |
| 1420 | | | <u>backpressure or back</u> | |
| 1421 | | | <u>drainage conditions.</u> | |
| 1422 | | | <u>b. Shall not be installed</u> | |
| 1423 | | | <u>where it may be subjected</u> | |
| 1424 | | | <u>to continuous pressure</u> | |
| 1425 | | | <u>for more than 12 consecutive</u> | |
| 1426 | | | <u>hours at any time.</u> | |
| 1427 | | | <u>c. Shall be installed a</u> | |
| 1428 | | | <u>minimum of six inches</u> | |
| 1429 | | | <u>above all downstream piping</u> | |
| 1430 | | | <u>and the highest point of use.</u> | |
| 1431 | | | <u>d. Shall be installed on the</u> | |
| 1432 | | | <u>discharge (downstream) side</u> | |
| 1433 | | | <u>of any valves.</u> | |
| 1434 | | | <u>e. The AVB shall be installed</u> | |
| 1435 | | | <u>in a vertical position only.</u> | |
| 1436 | <u>Dual check valve</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1024</u> |
| 1437 | <u>Backflow Preventer</u> | | <u>or Backpressure</u> | |
| 1438 | | | <u>1/4" - 1"</u> | |

H.B. 45**Enrolled Copy**

| | | | | |
|------|---|--------------------|------------------------|--------------------|
| 1439 | <u>Backflow Preventer</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1012</u> |
| 1440 | <u>with Intermediate</u> | <u>Residential</u> | <u>or Backpressure</u> | <u>CSA CAN/</u> |
| 1441 | <u>Atmospheric Vent</u> | <u>Boiler</u> | <u>1/4" - 3/4"</u> | <u>CSA-B64.3</u> |
| 1442 | <u>Dual check valve</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1022</u> |
| 1443 | <u>type Backflow</u> | | <u>or Backpressure</u> | |
| 1444 | <u>Preventer for</u> | | <u>1/4" - 3/8"</u> | |
| 1445 | <u>Carbonated Beverage</u> | | | |
| 1446 | <u>Dispensers/Post</u> | | | |
| 1447 | <u>Mix Type</u> | | | |
| 1448 | <u>Hose-connection</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1011</u> |
| 1449 | <u>Vacuum Breaker</u> | | <u>1/2", 3/4", 1"</u> | <u>CSA CAN/</u> |
| 1450 | | | | <u>CSA-B64.2</u> |
| 1451 | <u>Vacuum Breaker</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1019</u> |
| 1452 | <u>Wall Hydrants,</u> | | <u>3/4", 1"</u> | <u>CSA CAN/</u> |
| 1453 | <u>Frost-resistant,</u> | | | <u>CSA-B64.2.2</u> |
| 1454 | <u>Automatic Draining</u> | | | |
| 1455 | <u>Type</u> | | | |
| 1456 | <u>Laboratory Faucet</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1035</u> |
| 1457 | <u>Backflow Preventer</u> | | | <u>CSA CAN/</u> |
| 1458 | | | | <u>CSA-B64.7</u> |
| 1459 | <u>Hose Connection</u> | <u>Low</u> | <u>Backsiphonage</u> | <u>ASSE 1052</u> |
| 1460 | <u>Backflow Preventer</u> | | <u>1/2" - 1"</u> | |
| 1461 | <u>Installation Guidelines: The above specialty devices shall be installed in accordance with their</u> | | | |
| 1462 | <u>listing and the manufacturer's instructions and the specific provisions of this chapter."</u> | | | |
| 1463 | <u>(22) In IPC, Section 608.6, the following sentence is added at the end of the</u> | | | |
| 1464 | <u>paragraph: "Any connection between potable water piping and sewer-connected waste shall be</u> | | | |
| 1465 | <u>protected by an air gap."</u> | | | |
| 1466 | <u>(23) IPC, Section 608.7, is deleted.</u> | | | |

1467 (24) In IPC, Section 608.11, the following sentence is added at the end of the
1468 paragraph: "The coating and installation shall conform to NSF Standard 61 and application of
1469 the coating shall comply with the manufacturer's instructions."

1470 (25) IPC, Section 608.13.3, is deleted and replaced with the following: "608.13.3
1471 Backflow preventer with intermediate atmospheric vent. Backflow preventers with
1472 intermediate atmospheric vents shall conform to ASSE 1012 or CAS CAN/CAS-B64.3. These
1473 devices shall be permitted to be installed on residential boilers only, without chemical
1474 treatment, where subject to continuous pressure conditions. The relief opening shall discharge
1475 by air gap and shall be prevented from being submerged."

1476 (26) IPC, Section 608.13.4, is deleted.

1477 (27) IPC, Section 608.13.9, is deleted.

1478 (28) IPC, Section 608.15.3, is deleted and replaced with the following: "608.15.3
1479 Protection by a backflow preventer with intermediate atmospheric vent. Connections to
1480 residential boilers only, without chemical treatment, shall be protected by a backflow preventer
1481 with an intermediate atmospheric vent."

1482 (29) IPC, Section 608.15.4, is deleted and replaced with the following: "608.15.4
1483 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type
1484 or pressure-type vacuum breakers. The critical level of the atmospheric vacuum breaker shall
1485 be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. The
1486 critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm)
1487 above the flood level rim of the fixture or device. Fill valves shall be set in accordance with
1488 Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar
1489 locations that will contain toxic fumes or vapors. Pipe-applied vacuum breakers shall be
1490 installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or
1491 device served. No valves shall be installed downstream of the atmospheric vacuum breaker."

1492 (30) In IPC, Section 608.15.4.2, the following is added after the first sentence:
1493 "Add-on-backflow prevention devices shall be non-removable. In climates where freezing
1494 temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow

1495 preventer shall be used."

1496 (31) In IPC, Section 608.16.2, the first sentence of the paragraph is deleted and
1497 replaced as follows: "608.16.2 Connections to boilers. The potable water supply to the
1498 residential boiler only, without chemical treatment, shall be equipped with a backflow
1499 preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA
1500 CAN/CSA B64.3."

1501 (32) IPC, Section 608.16.3, is deleted and replaced with the following: "608.16.3 Heat
1502 exchangers. Heat exchangers shall be separated from potable water by double-wall
1503 construction. An air gap open to the atmosphere shall be provided between the two walls.

1504 Exceptions:

1505 1. Single wall heat exchangers shall be permitted when all of the following conditions are met:

1506 a. It utilizes a heat transfer medium of potable water or contains only substances which are
1507 recognized as safe by the United States Food and Drug Administration (FDA);

1508 b. The pressure of the heat transfer medium is maintained less than the normal minimum
1509 operating pressure of the potable water system; and

1510 c. The equipment is permanently labeled to indicate only additives recognized as safe by the
1511 FDA shall be used.

1512 2. Steam systems that comply with paragraph 1 above.

1513 3. Approved listed electrical drinking water coolers."

1514 (33) In IPC, Section 608.16.4.1, a new exception is added as follows: "Exception: All
1515 class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or
1516 U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a
1517 double check valve assembly. Such systems shall include written certification of the chemical
1518 additives at the time of original installation and service or maintenance."

1519 (34) IPC, Section 608.16.7, is deleted and replaced with the following: "608.16.7
1520 Chemical dispensers. Where chemical dispensers connect to the water distribution system, the
1521 water supply system shall be protected against backflow in accordance with Section 608.13.1,
1522 Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8."

1523 (35) IPC, Section 608.16.8, is deleted and replaced with the following: "608.16.8
1524 Portable cleaning equipment. Where the portable cleaning equipment connects to the water
1525 distribution system, the water supply system shall be protected against backflow in accordance
1526 with Section 608.13.1, Section 608.13.2 or Section 608.13.8."

1527 (36) A new IPC, Section 608.16.11, is added as follows: "608.16.11 Automatic and
1528 coin operated car washes. The water supply to an automatic or coin operated car wash shall be
1529 protected in accordance with Section 608.13.1 or Section 608.13.2."

1530 (37) IPC, Section 608.17, is deleted.

1531 (38) IPC, Section 701.2, is deleted and replaced with the following: "701.2 Sewer
1532 required. Every building in which plumbing fixtures are installed and all premises having
1533 drainage piping shall be connected to a public sewer where the sewer is within 300 feet of the
1534 property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage
1535 disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered
1536 by the Department of Environmental Quality, Division of Water Quality."

1537 (39) IPC, Section 901.3, is deleted and replaced with the following: "901.3 Chemical
1538 waste vent system. The vent system for a chemical waste system shall be independent of the
1539 sanitary vent system and shall terminate separately through the roof to the open air or to an air
1540 admittance valve provided at least one chemical waste vent in the system terminates separately
1541 through the roof to the open air."

1542 (40) In IPC, Section 904.1, when the number of inches is to be specified, "12 inches
1543 (304.8mm)" is inserted.

1544 (41) In IPC, Section 904.6, the following sentence is added at the end of the
1545 paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the
1546 wall with an elbow pointing downward."

1547 (42) In IPC, Section 905.4, the following sentence is added at the end of the
1548 paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain
1549 and floor sink installations when installed in accordance with Sections 702.2, 905.2 and 905.3
1550 and provided with a wall clean out."

1551 (43) In IPC, Section 917.8, a new exception is added as follows: "Exception: Air
 1552 admittance valves shall be permitted in non-neutralized special waste systems provided that
 1553 they conform to the requirements in Sections 901.3 and 702.5, are tested to ASTM F1412, and
 1554 are certified by ANSI/ASSE."

1555 (44) In IPC, Section 1002.4, the following is added at the end of the paragraph:
 1556 "Approved Means of Maintaining Trap Seals. Approved means of maintaining trap seals
 1557 include the following, but are not limited to the methods cited:

1558 (a) Listed Trap Seal Primer

1559 (b) A hose bibb or bibbs within the same room

1560 (c) Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps
 1561 which require priming. All fixtures shall be in the same room and on the same floor level as
 1562 the trap primer

1563 (d) Barrier type floor drain trap seal protection device meeting ASSE Standard 1072

1564 (e) Deep seal p-trap"

1565 (45) IPC, Section 1104.2, is deleted and replaced with the following: "1104.2
 1566 Combining storm and sanitary drainage prohibited. The combining of sanitary and storm
 1567 drainage systems is prohibited."

1568 (46) IPC, Section 1108, is deleted.

1569 (47) In IPC, Chapter 14, the following referenced standard is added under ASSE:

1570 "Standard

1571 reference

Referenced in code

1572 number

Title

section number

1573 1072-2007

Performance Requirements for

1004.2

1574 Barrier Type Floor Drain Trap

1575 Seal Protection Devices"

1576 (48) In IPC, Chapter 14, the following referenced standard is added:

1577 "Standard

1578 reference

Referenced in code

| 1579 | <u>number</u> | <u>Title</u> | <u>section number</u> |
|------|--------------------|--|-----------------------|
| 1580 | <u>USC-</u> | <u>Foundation for Cross-Connection</u> | <u>Table 608.1</u> |
| 1581 | <u>FCCCHR</u> | <u>Control and Hydraulic Research</u> | |
| 1582 | <u>9th Edition</u> | <u>University of Southern California</u> | |
| 1583 | <u>Manual of</u> | <u>Kaprielian Hall 300</u> | |
| 1584 | <u>Cross</u> | <u>Los Angeles CA 90089-2531</u> | |
| 1585 | <u>Connection</u> | | |
| 1586 | <u>Control"</u> | | |

1587 (49) IPC, Appendix C, is deleted and replaced with the following Appendix C, Gray
1588 Water Recycling Systems, which may be adopted by local jurisdictions only as provided under
1589 the State Construction Code: "Appendix C Gray Water Recycling Systems
1590 Note: Section 301.3 of this code requires all plumbing fixtures that receive water or waste to
1591 discharge to the sanitary drainage system of the structure. In order to allow for the utilization
1592 of a gray water system, Section 301.3 should be revised to read as follows:
1593 In jurisdictions which have adopted this Appendix C as amended as a local amendment as
1594 provided herein, Section 301.3 of the IPC is deleted and replaced with the following:
1595 301.3 Connections to drainage system. All plumbing fixtures, drains, appurtenances, and
1596 appliances used to receive or discharge liquid wastes or sewage shall be directly connected to
1597 the sanitary drainage system of the building or premises, in accordance with the requirements
1598 of this code. This section shall not be construed to prevent indirect waste systems required by
1599 Chapter 8.
1600 Exception: Bathtubs, showers, lavatories, clothes washers, laundry trays, and approved clear
1601 water wastes shall not be required to discharge to the sanitary drainage system where such
1602 fixtures discharge to an approved gray water system for flushing of water closets and urinals or
1603 for subsurface landscape irrigation.

1604 SECTION C101 GENERAL
1605 C101.1 Scope. The provisions of this appendix shall govern the materials, design,
1606 construction, and installation of gray water systems for flushing of water closets and urinals

1607 (see Figure 2).

1608 C101.2 Recording. The existence of a gray water recycling system shall be recorded on the
1609 deed of ownership for that property.

1610 C101.3 Definition. The following term shall have the meaning shown herein.

1611 GRAY WATER. Waste discharged from lavatories, bathtubs, showers, clothes washers,
1612 laundry trays, and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable;
1613 non-combustible; without objectionable odors; non-highly pigmented; and will not interfere
1614 with the operation of the sewer treatment facility.

1615 C101.4 Permits. Permits shall be required in accordance with Section 106 and may also be
1616 required by the local health department.

1617 C101.5 Installation. In addition to the provisions of Section C101, systems for flushing of
1618 water closets and urinals shall comply with Section C102. Except as provided for in Appendix
1619 C, all systems shall comply with the provisions of the International Plumbing Code.

1620 C101.6 Materials. Above-ground drain, waste, and vent piping for gray water systems shall
1621 conform to one of the standards listed in Table 702.1. Gray water underground building
1622 drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

1623 C101.7 Tests. Drain, waste, and vent piping for gray water systems shall be tested in
1624 accordance with Section 312.

1625 C101.8 Inspections. Gray water systems shall be inspected in accordance with Section 107.

1626 C101.9 Potable water connections. The potable water supply to any building utilizing a gray
1627 water recycling system shall be protected against backflow by a reduced pressure principle
1628 backflow preventer installed in accordance with this Code.

1629 C101.10 Waste water connections. Gray water recycling systems shall receive only the waste
1630 discharge of bathtubs, showers, lavatories, clothes washers, or laundry trays, and other clear
1631 water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without
1632 objectionable odors; non-highly pigmented; and will not interfere with the operation of the
1633 sewer treatment facility.

1634 C101.11 Collection reservoir. Gray water shall be collected in an approved reservoir

1635 constructed of durable, nonabsorbent, and corrosion-resistant materials. The reservoir shall be
1636 a closed and gas-tight vessel. Access openings shall be provided to allow inspection and
1637 cleaning of the reservoir interior.

1638 C101.12 Filtration. Gray water entering the reservoir shall pass through an approved cartridge
1639 filter having a design flow rate of less than 0.375 gallons per minute per square foot of
1640 effective filter area, or a sand or diatomaceous earth filter designed to handle the anticipated
1641 volume of water.

1642 C101.12.1 Required valve. A full-open valve shall be installed downstream of the last fixture
1643 connection to the gray water discharge pipe before entering the required filter.

1644 C101.13 Overflow. The collection reservoir shall be equipped with an overflow pipe having
1645 the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be
1646 trapped and indirectly connected to the sanitary drainage system.

1647 C101.14 Drain. A drain shall be located at the lowest point of the collection reservoir and
1648 shall be indirectly connected to the sanitary drainage system. The drain shall be the same
1649 diameter as the overflow pipe required in Section C101.12.

1650 C101.15 Vent required. The reservoir shall be provided with a vent sized in accordance with
1651 Chapter 9 and based on the diameter of the reservoir influent pipe.

1652 SECTION C102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

1653 C102.1 Collection reservoir. The holding capacity of the reservoir shall be a minimum of
1654 twice the volume of water required to meet the daily flushing requirements of the fixtures
1655 supplied with gray water, but not less than 50 gallons (189 L). The reservoir shall be sized to
1656 limit the retention time of gray water to a maximum of 72 hours.

1657 C102.2 Disinfection. Gray water shall be disinfected by an approved method that employs
1658 one or more disinfectants such as chlorine, iodine, or ozone that is recommended for use with
1659 the pipes, fittings, and equipment by the manufacturer of the pipe, fittings, and equipment. A
1660 minimum of 1ppm residual free chlorine shall be maintained in the gray water recycling
1661 system reservoir.

1662 C102.3 Makeup water. Potable water shall be supplied as a source of makeup water for the

1663 gray water system. The potable water supply shall be protected against backflow by a reduced
1664 pressure principle backflow preventer installed in accordance with this Code. There shall be a
1665 full-open valve located on the makeup water supply line to the collection reservoir.

1666 C102.4 Coloring. The gray water shall be dyed blue or green with a food grade vegetable dye
1667 before such water is supplied to the fixtures.

1668 C102.5 Materials. Distribution piping shall conform to one of the standards listed in Table
1669 605.4.

1670 C102.6 Identification. Distribution piping and reservoirs shall be identified as containing
1671 nonpotable water. Piping identification shall be in accordance with Section 608.8.

1672 **SECTION C103 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS**

1673 C103.1 Gray water recycling systems utilized for subsurface irrigation for single family
1674 residences shall comply with the requirements of Utah Administrative Code, R317-401, Gray
1675 Water Systems. Gray water recycling systems utilized for subsurface irrigation for other
1676 occupancies shall comply with Utah Administrative Code, R317-3 Design Requirements for
1677 Wastewater Collection, Treatment and Disposal Systems, and Utah Administrative Code,
1678 R317-4, Onsite Wastewater Systems."

1679 **Section 204. Statewide Amendments to the IMC.**

1680 The following are adopted as amendments to the IMC to be applicable statewide:

1681 (1) In IMC, Section 403, a new Section 403.8 is added as follows: "Retrospective
1682 effect. Removal, alteration, or abandonment shall not be required, and continued use and
1683 maintenance shall be allowed, for a ventilation system within an existing installation that
1684 complies with the requirements of this Section 403 regardless of whether the ventilation
1685 system satisfied the minimum ventilation rate requirements of prior law."

1686 (2) IMC, Section 1101.10, is deleted.

1687 **Section 205. Statewide Amendments to the IFGC.**

1688 The following are adopted as amendments to the IFGC to be applicable statewide:

1689 (1) In IFGC, Chapter 4, Section 401, General, a new section IFGC, Section 401.9, is
1690 added as follows: "401.9 Meter protection. Fuel gas services shall be in an approved location

1691 and/or provided with structures designed to protect the fuel gas meter and surrounding piping
1692 from physical damage, including falling, moving, or migrating ice and snow. If an added
1693 structure is used, it must still provide access for service and comply with the IBC or the IRC."

1694 **Section 206. Statewide Amendments to the NEC.**

1695 The following are adopted as amendments to the NEC to be applicable statewide:

1696 (1) During the period of time when the adopted IRC has not yet incorporated the latest
1697 residential electrical provisions contained in the adopted NEC, the IRC provisions shall
1698 prevail as the adopted residential electrical standards applicable to installations applicable
1699 under the IRC. All other installations shall comply with the adopted NEC.

1700 (2) In NEC, Section 310.15(B)(6), the second sentence is deleted and replaced with
1701 the following: "For application of this section, the main power feeder shall be the feeder(s)
1702 between the main disconnect and the panelboard(s)."

1703 (3) In NEC, Section 338.10(B)(4)(a), the following words are added at the end of the
1704 first sentence after Section 334: "excluding Section 334.80."

1705 **Section 207. Statewide Amendments to the IECC.**

1706 The following are adopted as amendments to the IECC to be applicable statewide:

1707 (1) In IECC, Section 504.4, a new exception is added as follows: "Exception: Heat
1708 traps, other than the arrangement of piping and fittings, shall be prohibited unless a means of
1709 controlling thermal expansion can be ensured as required in the IPC Section 607.3."

1710 **Section 208. Installation and Safety Requirements for Mobile Homes Built Prior to**
1711 **June 15, 1976.**

1712 (1) Mobile homes built prior to June 15, 1976 which are subject to relocation, building
1713 alteration, remodeling, or rehabilitation shall comply with the following:

1714 (a) Related to exits and egress windows:

1715 (i) Egress windows. The home has at least one egress window in each bedroom, or a
1716 window that meets the minimum specifications of the U.S. Department of Housing and Urban
1717 Development's (HUD) Manufactured Homes Construction and Safety Standards (MHCSS)
1718 program as set forth in 24 C.F.R. Parts 3280 and 3283, MHCSS 3280.106 and 3280.404 for

1719 manufactured homes. These standards require the window to be at least 22 inches in the
1720 horizontal or vertical position in its least dimension and at least five square feet in area. The
1721 bottom of the window opening shall be no more than 36 inches above the floor, and the locks
1722 and latches and any window screen or storm window devices that need to be operated to
1723 permit exiting shall not be located more than 54 inches above the finished floor.

1724 (ii) Exits. The home is required to have two exterior exit doors, located remotely from
1725 each other, as required in MHCSS 3280.105. This standard requires that single-section homes
1726 have the doors no less than 12 feet, center-to-center, from each other, and multisection home
1727 doors no less than 20 feet center-to-center from each other when measured in a straight line,
1728 regardless of the length of the path of travel between the doors. One of the required exit doors
1729 must be accessible from the doorway of each bedroom and no more than 35 feet away from
1730 any bedroom doorway. An exterior swing door shall have a 28-inch-wide by 74-inch-high
1731 clear opening and sliding glass doors shall have a 28-inch-wide by 72-inch-high clear opening.
1732 Each exterior door other than screen/storm doors shall have a key-operated lock that has a
1733 passage latch; locks shall not require the use of a key or special tool for operation from the
1734 inside of the home.

1735 (b) Related to flame spread:

1736 (i) Walls, ceilings, and doors. Walls and ceilings adjacent to or enclosing a furnace or
1737 water heater shall have an interior finish with a flame-spread rating not exceeding 25. Sealants
1738 and other trim materials two inches or less in width used to finish adjacent surfaces within
1739 these spaces are exempt from this provision, provided all joints are supported by framing
1740 members or materials with a flame spread rating of 25 or less. Combustible doors providing
1741 interior or exterior access to furnace and water heater spaces shall be covered with materials of
1742 limited combustibility (i.e., 5/16-inch gypsum board, etc.), with the surface allowed to be
1743 interrupted for louvers ventilating the space. However, the louvers shall not be of materials of
1744 greater combustibility than the door itself (i.e., plastic louvers on a wooden door). Reference
1745 MHCSS 3280.203.

1746 (ii) Exposed interior finishes. Exposed interior finishes adjacent to the cooking range

1747 (surfaces include vertical surfaces between the range top and overhead cabinets, the ceiling, or
1748 both) shall have a flame-spread rating not exceeding 50, as required by MHCSS 3280.203.
1749 Backsplashes not exceeding six inches in height are exempted. Ranges shall have a vertical
1750 clearance above the cooking top of not less than 24 inches to the bottom of combustible
1751 cabinets, as required by MHCSS 3280.204(e).

1752 (c) Related to smoke detectors:

1753 (i) Location. A smoke detector shall be installed on any ceiling or wall in the hallway
1754 or space communicating with each bedroom area between the living area and the first bedroom
1755 door, unless a door separates the living area from that bedroom area, in which case the
1756 detector shall be installed on the living-area side, as close to the door as practicable, as
1757 required by MHCSS 3280.208. Homes with bedroom areas separated by anyone or
1758 combination of common-use areas such as a kitchen, dining room, living room, or family
1759 room (but not a bathroom or utility room) shall be required to have one detector for each
1760 bedroom area. When located in the hallways, the detector shall be between the return air intake
1761 and the living areas.

1762 (ii) Switches and electrical connections. Smoke detectors shall have no switches in the
1763 circuit to the detector between the over-current protection device protecting the branch circuit
1764 and the detector. The detector shall be attached to an electrical outlet box and connected by a
1765 permanent wiring method to a general electrical circuit. The detector shall not be placed on the
1766 same branch circuit or any circuit protected by a ground-fault circuit interrupter.

1767 (d) Related to solid-fuel-burning stoves/fireplaces:

1768 (i) Solid-fuel-burning fireplaces and fireplace stoves. Solid-fuel-burning, factory-built
1769 fireplaces, and fireplace stoves may be used in manufactured homes, provided that they are
1770 listed for use in manufactured homes and installed according to their listing/manufacture's
1771 instructions and the minimum requirements of MHCSS 3280.709(g).

1772 (ii) Equipment. A solid-fuel-burning fireplace or fireplace stove shall be equipped
1773 with an integral door or shutters designed to close the fire chamber opening and shall include
1774 complete means for venting through the roof, a combustion air inlet, a hearth extension, and

1775 means to securely attach the unit to the manufactured home structure.

1776 (A) Chimney. A listed, factory-built chimney designed to be attached directly to the
1777 fireplace/fireplace stove and equipped with, in accordance with the listing, a termination
1778 device and spark arrester, shall be required. The chimney shall extend at least three feet above
1779 the part of the roof through which it passes and at least two feet above the highest elevation of
1780 any part of the manufactured home that is within 10 feet of the chimney.

1781 (B) Air-intake assembly and combustion-air inlet. An air-intake assembly shall be
1782 installed in accordance with the terms of listings and the manufacturer's instruction. A
1783 combustion-air inlet shall conduct the air directly into the fire chamber and shall be designed
1784 to prevent material from the hearth from dropping on the area beneath the manufactured home.

1785 (C) Hearth. The hearth extension shall be of noncombustible material that is a
1786 minimum of 3/8-inch thick and shall extend a minimum of 16 inches in front and eight inches
1787 beyond each side of the fireplace/fireplace stove opening. The hearth shall also extend over the
1788 entire surface beneath a fireplace stove and beneath an elevated and overhanging fireplace.

1789 (e) Related to electrical wiring systems:

1790 (i) Testing. All electrical systems shall be tested for continuity in accordance with
1791 MHCSS 3280.810, to ensure that metallic parts are properly bonded; tested for operation, to
1792 demonstrate that all equipment is connected and in working order; and given a polarity check,
1793 to determine that connections are proper.

1794 (ii) 5.2 Protection. The electrical system shall be properly protected for the required
1795 amperage load. If the unit wiring employs aluminum conductors, all receptacles and switches
1796 rated at 20 amperes or less that are directly connected to the aluminum conductors shall be
1797 marked CO/ALA. Exterior receptacles, other than heat tape receptacles, shall be of the
1798 ground-fault circuit interrupter (GFI) type. Conductors of dissimilar metals (copper/aluminum
1799 or copper-clad aluminum) must be connected in accordance with NEC, Section 110-14.

1800 (f) Related to replacement furnaces and water heaters:

1801 (i) Listing. Replacement furnaces or water heaters shall be listed for use in a
1802 manufactured home. Vents, roof jacks, and chimneys necessary for the installation shall be

1803 listed for use with the furnace or water heater.

1804 (ii) Securement and accessibility. The furnace and water heater shall be secured in
1805 place to avoid displacement. Every furnace and water heater shall be accessible for servicing,
1806 for replacement, or both as required by MHCSS 3280.709(a).

1807 (iii) Installation. Furnaces and water heaters shall be installed to provide complete
1808 separation of the combustion system from the interior atmosphere of the manufactured home,
1809 as required by MHCSS.

1810 (A) Separation. The required separation may be achieved by the installation of a
1811 direct-vent system (sealed combustion system) furnace or water heater or the installation of a
1812 furnace and water heater venting and combustion systems from the interior atmosphere of the
1813 home. There shall be no doors, grills, removable access panels, or other openings into the
1814 enclosure from the inside of the manufactured home. All openings for ducts, piping, wiring,
1815 etc., shall be sealed.

1816 (B) Water heater. The floor area in the area of the water heater shall be free from
1817 damage from moisture to ensure that the floor will support the weight of the water heater.

1818 **Part 3. Local Amendments**

1819 **Section 301. Local Amendments to the IBC.**

1820 The following are adopted as amendments to the IBC to be applicable to the following
1821 jurisdictions:

1822 (1) City of Farmington:

- 1823 (a) A new IBC, Section (F) 903.2.13, is added as follows: "(F) 903.2.13 Group R,
1824 Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every
1825 dwelling in accordance with NFPA 13D, when any of the following conditions are present:
1826 1. The structure is over two stories high, as defined by the building code;
1827 2. The nearest point of structure is more than 150 feet from the public way;
1828 3. The total floor area of all stories is over 5,000 square feet (excluding from the calculation
1829 the area of the basement and/or garage); or
1830 4. The structure is located on a street constructed after March 1, 2000 that has a gradient over

1831 12% and, during fire department response, access to the structure will be gained by using such
1832 street. (If the access is intended to be from a direction where the steep gradient is not used, as
1833 determined by the Chief, this criteria shall not apply).

1834 Such sprinkler system shall be installed in basements, but need not be installed in garages,
1835 under eaves or in enclosed attic spaces, unless required by the Chief."

1836 (b) A new IBC, Section 907.9, is added as follows: "907.9 Alarm Circuit Supervision.
1837 Alarm circuits in alarm systems provided for commercial uses (defined as other than one- and
1838 two-family dwellings and townhouses) shall have Class "A" type of supervision. Specifically,
1839 Type "B" or End-of-line resistor and horn supervised systems are not allowed."

1840 (c) In NFPA Section 13-07, new sections are added as follows: "6.8.6 FDC Security
1841 Locks Required. All Fire Department connections installed for fire sprinkler and standpipe
1842 systems shall have approved security locks.

1843 6.10 Fire Pump Disconnect Signs. When installing a fire pump, red plastic laminate signs
1844 shall be installed in the electrical service panel, if the pump is wired separately from the main
1845 disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES
1846 NOT Shut Off Fire Pump".

1847 22.1.6 Plan Preparation Identification. All plans for fire sprinkler systems, except for
1848 manufacturer's cut sheets of equipment shall include the full name of the person who prepared
1849 the drawings. When the drawings are prepared by a registered professional engineer, the
1850 engineer's signature shall also be included.

1851 22.2.2.3 Verification of Water Supply:

1852 22.2.2.3.1 Fire Flow Tests. Fire flow tests for verification of water supply shall be conducted
1853 and witnessed for all applications other than residential unless directed otherwise by the Chief.
1854 For residential water supply, verification shall be determined by administrative procedure.

1855 22.2.2.3.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include
1856 an accurate and verifiable water supply.

1857 24.2.3.7 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall
1858 include, but are not limited to:

1859 Commercial:
1860 FLUSH-Witness Underground Supply Flush;
1861 ROUGH Inspection-Installation of Riser, System Piping, Head Locations and all Components,
1862 Hydrostatic Pressure Test;
1863 FINAL Inspection-Head Installation and Escutcheons, Inspectors Test Location and Flow,
1864 Main Drain Flow, FDC Location and Escutcheon, Alarm Function, Spare Parts, Labeling of
1865 Components and Signage, System Completeness, Water Supply Pressure Verification,
1866 Evaluation of Any Unusual Parameter."
1867 (2) City of North Salt Lake, a new IBC, Section (F)903.2.13, is added as follows:
1868 "(F)903.2.13 Group R, Division 3 Occupancies. An automatic sprinkler system shall be
1869 installed throughout every dwelling in accordance with NFPA 13D, when the following
1870 condition is present:
1871 1. The structure is over 6,200 square feet.
1872 Such sprinkler system shall be installed in basements, but need not be installed in garages,
1873 under eaves, or in enclosed attic spaces, unless required by the fire chief."
1874 (3) Park City Corporation, in IBC, Section 3409.2, exception 3, is modified to read as
1875 follows: "3. Designated as historic under a state or local historic preservation program."
1876 (4) Park City Corporation and Park City Fire District:
1877 (a) IBC, Section (F)903.2, is deleted and replaced with the following: "(F)903.2 Where
1878 required. Approved automatic sprinkler systems in new buildings and structures shall be
1879 provided in the location described in this section.
1880 All new construction having more than 6,000 square feet on any one floor, except R-3
1881 occupancy.
1882 All new construction having more than two (2) stories, except R-3 occupancy.
1883 All new construction having three (3) or more dwelling units, including units rented or leased,
1884 and including condominiums or other separate ownership.
1885 All new construction in the Historic Commercial Business zone district, regardless of
1886 occupancy.

1887 All new construction and buildings in the General Commercial zone district where there are
1888 side yard setbacks or where one or more side yard setbacks is less than two and one half (2.5)
1889 feet per story of height.

1890 All existing building within the Historic District Commercial Business zone."

1891 (b) In IBC, Table 1505.1, new footnotes d and e are added as follows: "d. Wood roof
1892 covering assemblies are prohibited in R-3 occupancies in areas with a combined rating of
1893 more than 11 using Tables 1505.1.1 and 1505.1.2 with a score of 9 for weather factors.

1894 e. Wood roof covering assemblies shall have a Class A rating in occupancies other than R-3
1895 in areas with a combined rating of more than 11 using Tables 1505.1.1 and 1505.1.2 with a
1896 score of 9 for weather factors. The owner of the building shall enter into a written and recorded
1897 agreement that the Class A rating of the roof covering assembly will not be altered through any
1898 type of maintenance process.

1899 TABLE 1505.1.1

1900 WILDFIRE HAZARD SEVERITY SCALE

| 1901 <u>RATING</u> | 1901 <u>SLOPE</u> | 1901 <u>VEGETATION</u> |
|--------------------|---------------------------------------|-------------------------------|
| 1902 <u>1</u> | 1902 <u>less than or equal to 10%</u> | 1902 <u>Pinion-juniper</u> |
| 1903 <u>2</u> | 1903 <u>10.1 - 20%</u> | 1903 <u>Grass-sagebrush</u> |
| 1904 <u>3</u> | 1904 <u>greater than 20%</u> | 1904 <u>Mountain brush or</u> |
| 1905 | | 1905 <u>softwoods</u> |

1906 TABLE 1505.1.2

1907 PROHIBITION/ALLOWANCE OF WOOD ROOFING

| 1908 <u>Rating</u> | 1908 <u>R-3 Occupancy</u> | 1908 <u>All Other Occupancies</u> |
|-----------------------------|--------------------------------|---------------------------------------|
| 1909 <u>less than or</u> | 1909 <u>wood roof covering</u> | 1909 <u>wood roof covering</u> |
| 1910 <u>equal to 11</u> | 1910 <u>assemblies per</u> | 1910 <u>assemblies per</u> |
| 1911 | 1911 <u>Table 1505.1 are</u> | 1911 <u>Table 1505.1 are</u> |
| 1912 | 1912 <u>allowed</u> | 1912 <u>allowed</u> |
| 1913 <u>greater than or</u> | 1913 <u>wood roof covering</u> | 1913 <u>wood roof covering</u> |
| 1914 <u>equal to 12</u> | 1914 <u>is prohibited</u> | 1914 <u>assemblies with a Class A</u> |

1915 rating are allowed"

1916 (c) IBC, Appendix C, is adopted.

1917 (5) Salt Lake City:

1918 (a) In IBC, Section 1008.1.9.7, a new exception is added as follows: "Exception: In

1919 International Airport areas designated as Group "A" Occupancies where national security

1920 interests are present, the use of panic hardware with delayed egress is allowed when all

1921 provisions of Section 1008.1.9.7 are met and under item #4 1 second is changed to 2 seconds."

1922 (6) Sandy City:

1923 (a) A new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 An automatic

1924 sprinkler system shall be installed in accordance with NFPA 13 throughout buildings

1925 containing all occupancies where fire flow exceeds 2,000 gallons per minute, based on Table

1926 B105.1 of the 2009 International Fire Code. Exempt locations as indicated in Section

1927 903.3.1.1.1 are allowed.

1928 Exception: Automatic fire sprinklers are not required in buildings used solely for worship,

1929 Group R Division 3, Group U occupancies and buildings complying with the International

1930 Residential Code unless otherwise required by the International Fire Code.

1931 (b) A new IBC, Appendix L, is added and adopted as follows: "Appendix L

1932 BUILDINGS AND STRUCTURES CONSTRUCTED IN AREAS DESIGNATED AS

1933 WILDLAND-URBAN INTERFACE AREAS

1934 AL 101.1 General. Buildings and structures constructed in areas designated as

1935 Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant

1936 construction as determined by the Fire Marshal. Section 502 of the 2006 International

1937 Wildland-Urban Interface Code (IWUIC), as promulgated by the International Code Council,

1938 shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006

1939 International Wildland-Urban Interface Code, as modified herein, shall be used to determine

1940 the requirements for Ignition Resistant Construction.

1941 (i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new

1942 Section 504.1.1 is added as follows: "504.1.1 General. Subsections 504.5, 504.6, and 504.7

1943 shall only be required on the exposure side of the structure, as determined by the Fire Marshal,
1944 where defensible space is less than 50 feet as defined in Section 603 of the 2006 International
1945 Wildland-Urban Interface Code.

1946 (ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION
1947 Subsections 505.5 and 505.7 are deleted."

1948 **Section 302. Local Amendments to the IRC.**

1949 The following are adopted as amendments to the IRC to be applicable to the following
1950 jurisdictions:

1951 (1) A local amendment to the following which may be applied to detached one and
1952 two family dwellings and multiple single family dwellings shall be applicable to the
1953 corresponding provisions of the IRC for the local jurisdiction to which the local amendment
1954 has been made:

- 1955 (a) IBC under State Construction Code, Section 301;
- 1956 (b) IPC under State Construction Code, Section 303;
- 1957 (c) IMC under State Construction Code, Section 304;
- 1958 (d) IFGC under State Construction Code, Section 305;
- 1959 (e) NEC under State Construction Code, Section 306; and
- 1960 (f) IECC under State Construction Code, Section 307.

1961 (2) City of Farmington:

1962 (a) In IRC, R324 Automatic Sprinkler Systems, new IRC, Sections R324.1 and
1963 R324.2 are added as follows: "R324.1 When required. An automatic sprinkler system shall be
1964 installed throughout every dwelling in accordance with NFPA 13D, when any of the following
1965 conditions are present:

- 1966 1. the structure is over two stories high, as defined by the building code;
- 1967 2. the nearest point of structure is more than 150 feet from the public way;
- 1968 3. the total floor area of all stories is over 5,000 square feet (excluding from the calculation
1969 the area of the basement and/or garage); or
- 1970 4. the structure is located on a street constructed after March 1, 2000 that has a gradient over

1971 12% and, during fire department response, access to the structure will be gained by using such
1972 street. (If the access is intended to be from a direction where the steep gradient is not used, as
1973 determined by the Chief, this criteria shall not apply).

1974 R324.2 Installation requirements and standards. Such sprinkler system shall be installed in
1975 basements, but need not be installed in garages, under eaves or in enclosed attic spaces, unless
1976 required by the Chief. Such system shall be installed in accordance with NFPA 13D."

1977 (b) In IRC, Chapter 44, the following NFPA referenced standards are added as
1978 follows:

1979 "TABLE

1980 ADD

1981 13D-07

Installation of Sprinkler Systems in
One- and Two-family Dwellings and
Manufactured Homes, as amended by these rules

1984 13R-07

Installation of Sprinkler Systems in
Residential Occupancies Up to and
Including Four Stories in Height"

1987 (c) In NFPA, Section 13D-07, new sections are added as follows: "1.15 Reference to
1988 NFPA 13D. All references to NFPA 13D in the codes, ordinances, rules, or regulations
1989 governing NFPA 13D systems shall be read to refer to "modified NFPA 13D" to reference the
1990 NFPA 13D as amended by additional regulations adopted by Farmington City.

1991 4.9 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall
1992 include, but are not limited to:

1993 Residential:

1994 ROUGH Inspection-Verify Water Supply Piping Size and Materials, Installation of Riser,
1995 System Piping, Head Locations and all Components, Hydrostatic Pressure Test.

1996 FINAL Inspection-Inspectors Test Flow, System Completeness, Spare Parts, Labeling of
1997 Components and Signage, Alarm Function, Water Supply Pressure Verification.

1998 5.2.2.3 Exposed Piping of Metal. Exposed Sprinkler Piping material in rooms of dwellings

1999 shall be of Metal.

2000 EXCEPTIONS:

2001 a. CPVC Piping is allowed in unfinished mechanical and storage rooms only when
2002 specifically listed for the application as installed.

2003 b. CPVC Piping is allowed in finished, occupied rooms used for sports courts or similar uses
2004 only when the ceiling/floor framing above is constructed entirely of non-combustible
2005 materials, such as a concrete garage floor on metal decking.

2006 5.2.2.4 Water Supply Piping Material. Water Supply Piping from where the water line enters
2007 the dwelling adjacent to and inside the foundation to the fire sprinkler contractor
2008 point-of-connection shall be metal, suitable for potable plumbing systems. See Section 7.1.4
2009 for valve prohibition in such piping. Piping down stream from the point-of-connection used in
2010 the fire sprinkler system, including the riser, shall conform to NFPA 13D standards.

2011 5.4 Fire Pump Disconnect Signs. When installing a Fire Pump, Red Plastic Laminate Signs
2012 shall be installed in the electrical service panel, if the pump is wired separately from the main
2013 disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES
2014 NOT Shut Off Fire Pump".

2015 7.1.4 Valve Prohibition. NFPA 13D, Section 7.1 is hereby modified such that NO VALVE is
2016 permitted from the City Water Meter to the Fire Sprinkler Riser Control.

2017 7.6.1 Mandatory Exterior Alarm. Every dwelling that has a fire sprinkler system shall have an
2018 exterior alarm, installed in an approved location. The alarm shall be of the combination
2019 horn/strobe or electric bell/strobe type, approved for outdoor use.

2020 8.1.05 Plan Preparation Identification. All plans for fire sprinkler systems, except for
2021 manufacturer's cut sheets of equipment, shall include the full name of the person who prepared
2022 the drawings. When the drawings are prepared by a registered professional engineer, the
2023 engineer's signature shall also be included.

2024 8.7 Verification of Water Supply:

2025 8.7.1 Fire Flow Tests: Fire Flow Tests for verification of Water Supply shall be conducted and
2026 witnesses for all applications other than residential, unless directed otherwise by the Chief. For

2027 residential Water Supply, verification shall be determined by administrative procedure.

2028 8.7.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an
2029 accurate and verifiable Water Supply.

2030 (3) Morgan City Corporation, in IRC, Section R105.2, Work Exempt From Permit, a
2031 new list item number 11 is added as follows: "11. Structures intended to house farm animals,
2032 or for the storage of feed associated with said farm animals when all the following criteria are
2033 met:

2034 a. The parcel of property involved is zoned for the keeping of farm animals or has
2035 grandfathered animal rights.

2036 b. The structure is setback not less than 50 feet from the rear or side of dwellings, and not less
2037 than 10 feet from property lines and other structures.

2038 c. The structure does not exceed 1,000 square feet of floor area, and is limited to 20 feet in
2039 height. Height is measured from the average grade to the highest point of the structure.

2040 d. Before construction, a site plan is submitted to, and approved by the building official.

2041 Electrical, plumbing, and mechanical permits shall be required when that work is included in
2042 the structure."

2043 (4) Morgan County, in IRC, Section R105.2, a new list item number 11 is added as
2044 follows: "11. Structures intended to house farm animals, or for the storage of feed associated
2045 with said farm animals when all the following criteria are met:

2046 a. The parcel of property involved is zoned for the keeping of farm animals or has
2047 grandfathered animal rights.

2048 b. The structure is set back not less than required by the Morgan County Zoning Ordinance
2049 for such structures, but not less than 10 feet from property lines and other structures.

2050 c. The structure does not exceed 1,000 square feet of floor area, and is limited to 20 feet in
2051 height. Height is measured from the average grade to the highest point of the structure.

2052 d. Before construction, a Land Use Permit must be applied for, and approved, by the Morgan
2053 County Planning and Zoning Department. Electrical, plumbing, and mechanical permits shall
2054 be required when that work is included in the structure."

2055 (5) City of North Salt Lake, a new IRC, Section R324, is added as follows: "Section
2056 R324 Automatic Sprinkler System Requirements. R324.1 When Required. An automatic
2057 sprinkler system shall be installed throughout every dwelling when the following condition is
2058 present:

2059 1. The structure is over 6,200 square feet.

2060 R324.2 Installation requirements and standards. Such sprinkler system shall be installed in
2061 basements, but need not be installed in garages, under eaves, or in enclosed attic spaces, unless
2062 required by the fire chief. Such system shall be installed in accordance with NFPA 13D."

2063 (6) Park City Corporation, Appendix P, of the 2006 IRC is adopted.

2064 (7) Park City Corporation and Park City Fire District:

2065 (a) IRC, Section R905.7, is deleted and replaced with the following: "R905.7 Wood
2066 shingles. The installation of wood shingles shall comply with the provisions of this section.
2067 Wood roof covering is prohibited in areas with a combined rating of more than 11 using the
2068 following tables with a score of 9 for weather factors.

TABLE

WILDFIRE HAZARD SEVERITY SCALE

| <u>RATING</u> | <u>SLOPE</u> | <u>VEGETATION</u> |
|---------------|----------------------------------|--|
| <u>1</u> | <u>less than or equal to 10%</u> | <u>Pinion-juniper</u> |
| <u>2</u> | <u>10.1 - 20%</u> | <u>Grass-sagebrush</u> |
| <u>3</u> | <u>greater than 20%</u> | <u>Mountain brush or softwoods</u> |

PROHIBITION/EXEMPTION TABLE

| <u>RATING</u> | <u>WOOD ROOF PROHIBITION</u> |
|------------------------------------|-----------------------------------|
| <u>less than or equal to 11</u> | <u>wood roofs are allowed</u> |
| <u>greater than or equal to 12</u> | <u>wood roofs are prohibited"</u> |

2080 (b) IRC, Section R905.8, is deleted and replaced with the following: "R905.8 Wood
2081 Shakes. The installation of wood shakes shall comply with the provisions of this section.
2082 Wood roof covering is prohibited in areas with a combined rating of more than 11 using the

2083 following tables with a score of 9 for weather factors.

2084 TABLE

2085 WILDFIRE HAZARD SEVERITY SCALE

| 2086 <u>RATING</u> | <u>SLOPE</u> | <u>VEGETATION</u> |
|--------------------|----------------------------------|--|
| 2087 <u>1</u> | <u>less than or equal to 10%</u> | <u>Pinion-juniper</u> |
| 2088 <u>2</u> | <u>10.1 - 20%</u> | <u>Grass-sagebrush</u> |
| 2089 <u>3</u> | <u>greater than 20%</u> | <u>Mountain brush or</u> <u>softwoods</u> |

2091 PROHIBITION/EXEMPTION TABLE

| 2092 <u>RATING</u> | <u>WOOD ROOF PROHIBITION</u> |
|---|-----------------------------------|
| 2093 <u>less than or equal to 11</u> | <u>wood roofs are allowed</u> |
| 2094 <u>greater than or equal to 12</u> | <u>wood roofs are prohibited"</u> |

2095 (c) Appendix K is adopted.

2096 (8) Sandy City, a new IRC, Section R324, is added as follows: "Section R324

2097 IGNITION RESISTANT CONSTRUCTION

2098 R324.1 General. Buildings and structures constructed in areas designated as Wildland-Urban
2099 Interface Areas by Sandy City shall be constructed using ignition resistant construction as
2100 determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban
2101 Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to
2102 determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 IWUIC, as
2103 modified herein, shall be used to determine the requirements for Ignition Resistant
2104 Construction.

2105 (i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new
2106 Section 504.1.1 is added as follows:

2107 504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure
2108 side of the structure, as determined by the Fire Marshal, where defensible space is less than 50
2109 feet as defined in Section 603 of the 2006 IWUIC.

2110 (ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION

2111 Subsections 505.5 and 505.7 are deleted."

2112 **Section 303. Local Amendments to the IPC.**

2113 The following are adopted as amendments to the IPC to be applicable to the following
2114 jurisdictions:

2115 (1) Salt Lake City, IPC, Appendix C, as specified and amended in State Construction
2116 Code, Subsection 203(49).

2117 (2) South Jordan:

2118 (a) IPC, Section 312.10.2, is deleted and replaced with the following: "312.10.2
2119 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve
2120 assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection
2121 backflow prevention assemblies, double check detector fire protection backflow prevention
2122 assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be
2123 tested at the time of installation, immediately after repairs or relocation and at least annually.

2124 The testing procedure shall be performed in accordance with one of the following standards:
2125 ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056,
2126 CSA B64.10, or CSA B64.10.1. Assemblies, other than the reduced pressure principle
2127 assembly, protecting lawn irrigation systems that fail the annual test shall be replaced with a
2128 reduced pressure principle assembly."

2129 (b) IPC, Section 608.16.5, is deleted and replaced with the following: "608.16.5
2130 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems
2131 shall be protected against backflow by a reduced pressure principle backflow preventer."

2132 **Section 304. Local Amendment to the IMC.**

2133 The following are adopted as amendments to the IMC to be applicable to the following
2134 jurisdictions:

2135 None.

2136 **Section 305. Local Amendment to the IFGC.**

2137 The following are adopted as amendments to the IFGC to be applicable to the
2138 following jurisdictions:

2139 None.

2140 **Section 306. Local Amendment to the NEC.**

2141 The following are adopted as amendments to the NEC to be applicable to the following
2142 jurisdictions:

2143 None.

2144 **Section 307. Local Amendment to the IECC.**

2145 The following are adopted as amendments to the IECC to be applicable to the
2146 following jurisdictions:

2147 None.

2148 Section 2. **Effective date.**

2149 This bill takes effect on July 1, 2010.