

FLOW RATES OR QUANTITY FOR PLUMBING FIXTURES

2022 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Jani Iwamoto

House Sponsor: Joel Ferry

LONG TITLE

General Description:

This bill modifies provisions related to requirements for plumbing fixtures or fixture fittings.

Highlighted Provisions:

This bill:

- ▶ modifies the residential and plumbing code adopted by the state to address maximum flow rates or quantity for certain plumbing fixtures or fixture fittings; and
- ▶ makes technical amendments.

Money Appropriated in this Bill:

None

Other Special Clauses:

This bill provides a special effective date.

Utah Code Sections Affected:

AMENDS:

15A-3-205, as last amended by Laws of Utah 2019, Chapter 20

15A-3-306, as last amended by Laws of Utah 2019, Chapter 20

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

Section 1. Section **15A-3-205** is amended to read:

15A-3-205. Amendments to Chapters 26 through 35 of IRC.



28 (1) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water
29 supply. Where a potable public water supply is not available, individual sources of potable
30 water supply shall be utilized, provided that the source has been developed in accordance with
31 Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural
32 Resources, Division of Water Rights. In addition, the quality of the water shall be approved by
33 the local health department having jurisdiction."

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

40 (3) In IRC, Section P2705, Item 5, the words "lavatory" and "lavatories" are deleted.

41 (4) In IRC, Section P2705, a new Item 6 is added as follows: "6. Lavatories. A lavatory
42 shall not be set closer than 12 inches from its center to any side wall or partition. A lavatory
43 shall be provided with a clearance of 24 inches in width and 21 inches in depth in front of the
44 lavatory to any side wall, partition, or obstruction." Remaining item numbers are renumbered
45 accordingly.

46 (5) In IRC, Section P2801.8, all words in the first sentence up to the word "water" are
47 deleted.

48 (6) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly
49 testing. The premise owner or the premise owner's designee shall have backflow prevention
50 assemblies operation tested in accordance with administrative rules made by the Drinking
51 Water Board at the time of installation, repair, and relocation and at least on an annual basis
52 thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be
53 performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject
54 to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker
55 Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector
56 Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and
57 Reduced Pressure Detector Assembly. Third-party certification for backflow prevention
58 assemblies will consist of any combination of two certifications, laboratory or field.

59 Acceptable third-party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR.
60 USC-FCCCHR currently provides the only field testing of backflow protection assemblies.
61 Also see www.drinkingwater.utah.gov and rules made by the Drinking Water Board."

62 (7) In IRC, Section P2902.1, the following subsections are added as follows:

63 "P2902.1.1 General Installation Criteria.

64 Assemblies shall not be installed more than five feet above the floor unless a permanent
65 platform is installed. The assembly owner, where necessary, shall provide devices or structures
66 to facilitate testing, repair, and maintenance, and to insure the safety of the backflow
67 technician.

68 P2902.1.2 Specific Installation Criteria.

69 P2902.1.2.1 Reduced Pressure Principle Blackflow Prevention Assembly.

70 The reduced pressure principle backflow prevention assembly shall be installed as
71 follows:

- 72 a. The assembly may not be installed in a pit.
- 73 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,
74 including a sanitary sewer, a storm drain, or a vent.
- 75 c. The assembly shall be installed in a horizontal position only, unless listed or approved for
76 vertical installation in accordance with Section 303.4.
- 77 d. The bottom of the assembly shall be installed a minimum of 12 inches above the floor or
78 ground.
- 79 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
80 obstacle, and shall be readily accessible for testing, repair, and maintenance.

81 P2902.1.2.2 Double Check Valve Backflow Prevention Assembly.

82 A double check valve backflow prevention assembly shall be installed as follows:

- 83 a. The assembly shall be installed in a horizontal position only, unless listed or approved for
84 vertical installation.
- 85 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or floor.
- 86 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
87 obstacle, and shall be readily accessible for testing, repair, and maintenance.
- 88 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance
89 between all sides of the vault, including the floor and roof or ceiling, with adequate room for

90 testing and maintenance.

91 P2902.1.2.3 Pressure Vacuum Break Assembly and Spill Resistant Pressure Vacuum Breaker
92 Assembly.

93 A pressure vacuum break assembly or a spill resistant pressure vacuum breaker assembly shall
94 be installed as follows:

95 a. The assembly shall not be installed in an area that could be subject to backpressure or back
96 drainage conditions.

97 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and
98 the highest point of use.

99 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall
100 be readily accessible for testing, repair, and maintenance.

101 d. The assembly shall not be installed below ground, in a vault, or in a pit.

102 e. The assembly shall be installed in a vertical position."

103 (8) In IRC, Table 2903.2, the following changes are made in the column titled
104 "MAXIMUM FLOW RATE OR QUANTITY":

105 (a) In the row titled "Lavatory faucet" the text is deleted and replaced with "1.5 gpm at
106 60 psi".

107 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80
108 psi".

109 (c) In the row titled "Water closet" the text is deleted and replaced with "1.28 gallons
110 per flushing cycle".

111 [~~(8)~~] (9) In IRC, Section 2903.5, at the beginning of the second sentence, insert "If
112 installed,".

113 [~~(9)~~] (10) In IRC, Section P2903.9.3, the first sentence is deleted and replaced with the
114 following: "Unless the plumbing appliance or plumbing fixture has a wall-mount valve, shutoff
115 valves shall be required on each fixture supply pipe to each plumbing appliance and to each
116 plumbing fixture other than bathtubs and showers."

117 [~~(10)~~] (11) IRC, Section P2910.5, is deleted and replaced with the following:
118 "P2910.5 Potable water connections.

119 When a potable water system is connected to a nonpotable water system, the potable water
120 system shall be protected against backflow by a reduced pressure backflow prevention

121 assembly or an air gap installed in accordance with Section 2901."

122 [~~(11)~~] (12) IRC, Section P2910.9.5, is deleted and replaced with the following:

123 "P2910.9.5 Makeup water.

124 Where an uninterrupted nonpotable water supply is required for the intended application,

125 potable or reclaimed water shall be provided as a source of makeup water for the storage tank.

126 The makeup water supply shall be protected against backflow by means of an air gap not less

127 than 4 inches (102 millimeters) above the overflow or by a reduced pressure backflow

128 prevention assembly installed in accordance with Section 2902."

129 [~~(12)~~] (13) In IRC, Section P2911.12.4, the following words are deleted: "and

130 backwater valves."

131 [~~(13)~~] (14) In IRC, Section P2912.15.6, the following words are deleted: "and

132 backwater valves."

133 [~~(14)~~] (15) In IRC, Section P2913.4.2, the following words are deleted: "and backwater

134 valves."

135 [~~(15)~~] (16) IRC, Section P3009, is deleted and replaced with the following:

136 "P3009 Connected to nonpotable water from on-site water reuse systems.

137 Nonpotable systems utilized for subsurface irrigation for single-family residences shall comply

138 with the requirements of R317-401, UAC, Graywater Systems."

139 [~~(16)~~] (17) In IRC, Section P3103.6, the following sentence is added at the end of the

140 paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the

141 wall with an elbow pointing downward."

142 [~~(17)~~] (18) In IRC, Section P3104.4, the following sentence is added at the end of the

143 paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain

144 and floor sink installations when installed below grade in accordance with Chapter 30, and

145 Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

146 Section 2. Section **15A-3-306** is amended to read:

147 **15A-3-306. Amendments to Chapter 6 of IPC.**

148 (1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual

149 water supply. Where a potable public water supply is not available, individual sources of

150 potable water supply shall be utilized provided that the source has been developed in

151 accordance with Utah Code, Sections [73-3-1](#), [73-3-3](#), and [73-3-25](#), as administered by the

152 Department of Natural Resources, Division of Water Rights. In addition, the quality of the
153 water shall be approved by the local health department having jurisdiction. The source shall
154 supply sufficient quantity of water to comply with the requirements of this chapter."

155 (2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are
156 deleted.

157 (3) In IPC, Table 604.4, the following changes are made in the column titled
158 "MAXIMUM FLOW RATE OR QUANTITY":

159 (a) In the row titled "Lavatory, private" the text is deleted and replaced with "1.5 gpm
160 at 60 psi".

161 (b) In the row titled "Shower head" the text is deleted and replaced with "2 gpm at 80
162 psi".

163 (c) In the row titled "Urinal" the text is deleted and replaced with "0.5 gallon per
164 flushing cycle".

165 (d) In the row titled "Water closet" the text is deleted and replaced with "1.28 gallons
166 per flushing cycle".

167 [~~(3)~~] (4) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated
168 metering faucets for food service establishments. Self closing or manually operated metering
169 faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the
170 faucet."

171 [~~(4)~~] (5) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water
172 pressure booster systems. Water pressure booster systems shall be provided as required by
173 Section 606.5.1 through 606.5.11."

174 [~~(5)~~] (6) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited
175 installation. In no case shall a booster pump be allowed that will lower the pressure in the
176 public main to less than the minimum water pressure specified in Utah Administrative Code
177 R309-105-9."

178 [~~(6)~~] (7) In IPC, Section 608.1, the words "and pollution" are added after the word
179 "contamination."

180 [~~(7)~~] (8) In IPC, Section 608.1, the following subsections are added as follows:
181 "608.1.1 General Installation Criteria.

182 An assembly shall not be installed more than five feet above the floor unless a permanent

183 platform is installed. The assembly owner, where necessary, shall provide devices or structures
184 to facilitate testing, repair, and maintenance and to insure the safety of the backflow technician.

185 608.1.2 Specific Installation Criteria.

186 608.1.2.1 Reduced Pressure Principle Backflow Prevention Assembly.

187 A reduced pressure principle backflow prevention assembly shall be installed as follows:

188 a. The assembly shall not be installed in a pit or below grade where the relief port could be
189 submerged in water or where fumes could be present at the relief port discharge.

190 b. The relief valve of the assembly shall not be directly connected to a waste disposal line,
191 including a sanitary sewer, storm drain, or vent.

192 c. The assembly shall be installed in a horizontal position, unless the assembly is listed or
193 approved for vertical installation in accordance with Section 303.4.

194 d. The bottom of each assembly shall be installed a minimum of 12 inches above the ground or
195 the floor.

196 e. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
197 obstacle, and shall be readily accessible for testing, repair, and maintenance.

198 608.1.2.2 Double Check Valve Backflow Prevention Assembly.

199 A double check valve backflow prevention assembly shall be installed as follows:

200 a. The assembly shall be installed in a horizontal position unless the assembly is listed or
201 approved for vertical installation.

202 b. The bottom of the assembly shall be a minimum of 12 inches above the ground or the floor.

203 c. The body of the assembly shall be a minimum of 12 inches from any wall, ceiling, or
204 obstacle, and shall be readily accessible for testing, repair, and maintenance.

205 d. If installed in a pit, the assembly shall be installed with a minimum of 12 inches of clearance
206 around all sides of the vault, including the floor and roof or ceiling, with adequate room for
207 testing and maintenance.

208 608.1.2.3 Pressure Vacuum Breaker Assembly and Spill Resistant Pressure Vacuum Breaker
209 Assembly.

210 A pressure vacuum breaker assembly and spill resistant pressure vacuum breaker assembly
211 shall be installed as follows:

212 a. The assembly shall not be installed in an area that could be subject to backpressure or back
213 drainage conditions.

214 b. The assembly shall be installed a minimum of 12 inches above all downstream piping and
215 the highest point of use.

216 c. The assembly shall be a minimum of 12 inches from any wall, ceiling, or obstacle, and shall
217 be readily accessible for testing, repair, and maintenance.

218 d. The assembly shall not be installed below ground or in a vault or pit.

219 e. The assembly shall be installed in a vertical position."

220 [~~(8)~~] (9) In IPC, Section 608.3, the word "and" before the word "contamination" is
221 deleted and replaced with a comma and the words " or pollution" are added after the word
222 "contamination" in the first sentence.

223 [~~(9)~~] (10) In IPC, Section 608.6, the words "with the potential to create a condition of
224 either contamination or pollution or" are added after the word "substances."

225 [~~(10)~~] (11) In IPC, Section 608.7, the following sentence is added at the end of the
226 paragraph: "Any connection between potable water piping and sewer-connected waste shall be
227 protected by an air gap in accordance with Section 608.14.1."

228 [~~(11)~~] (12) IPC, Section 608.8, is deleted and replaced with the following: " 608.8 Stop
229 and Waste Valves installed below grade. Combination stop-and-waste valves shall be
230 permitted to be installed underground or below grade. Freeze proof yard hydrants that drain
231 the riser into the ground are considered to be stop-and-waste valves and shall be permitted. A
232 stop-and-waste valve shall be installed in accordance with a manufacturer's recommended
233 installation instructions."

234 [~~(12)~~] (13) IPC, Section 608.14.3, is deleted and replaced with the following: "
235 608.14.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with
236 intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA-B64.3. These
237 devices shall be permitted to be installed on residential boilers, without chemical treatment,
238 where subject to continuous pressure conditions, and humidifiers in accordance with Section
239 608.17.10. The relief opening shall discharge by air gap and shall be prevented from being
240 submerged."

241 [~~(13)~~] (14) IPC, Section 608.14.4, is deleted.

242 [~~(14)~~] (15) IPC, Section 608.16.3, is deleted and replaced with the following: "
243 608.16.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections
244 to residential boilers only, without chemical treatment, and humidifiers shall be protected by a

245 backflow preventer with an intermediate atmospheric vent."

246 [~~(15)~~] (16) IPC, Section 608.16.4, is deleted and replaced with the following: "
247 608.16.4 Protection by a vacuum breaker. Openings and outlets shall be protected by
248 atmospheric-type or pressure-type vacuum breakers. Vacuum breakers shall not be installed
249 under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves
250 shall be set in accordance with Section 425.3.1. Atmospheric Vacuum Breakers - The critical
251 level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above
252 the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed not
253 less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served.
254 No valves shall be installed downstream of the atmospheric vacuum breaker. The atmospheric
255 vacuum breaker shall not be installed where it may be subjected to continuous pressure for
256 more than 12 consecutive hours at any time. Pressure Vacuum Breaker - The critical level of
257 the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood
258 level of the fixture or device."

259 [~~(16)~~] (17) In IPC, Section 608.16.4.2, the following is added after the first sentence:
260 "Add-on-backflow prevention devices shall be non-removable. In climates where freezing
261 temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow
262 preventer shall be used."

263 [~~(17)~~] (18) In IPC, Section 608.17.1.2, the words "or ASSE 1024" are deleted.

264 [~~(18)~~] (19) IPC, Section 608.17.2, is deleted and replaced as follows: " 608.17.2
265 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a
266 reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or
267 AWWA C511.

268 Exception: The potable supply to a residential boiler without chemical treatment may be
269 equipped with a backflow preventer with an intermediate atmospheric vent complying with
270 ASSE 1012 or CSA CAN/CSA-B64.3."

271 [~~(19)~~] (20) In IPC, Section 608.17.4.1, a new exception is added as follows:
272 "Exception: All class 1 and 2 systems containing chemical additives consisting of strictly
273 glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against
274 backflow with a double check valve assembly. Such systems shall include written certification
275 of the chemical additives at the time of original installation and service or maintenance."

276 [~~(20)~~] (21) IPC, Section 608.17.7, is deleted and replaced with the following: "
277 608.17.7 Chemical dispensers. Where chemical dispensers connect to the water distribution
278 system, the water supply system shall be protected against backflow in accordance with Section
279 608.14.1, Section 608.14.2, Section 608.14.5, Section 608.14.6 or Section 608.14.8.
280 Installation shall be in accordance with Section 608.1.2. Chemical dispensers shall connect to a
281 separate dedicated water supply line, and not a sink faucet."

282 [~~(21)~~] (22) IPC, Section 608.17.8, is deleted and replaced with the following: "
283 608.17.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the
284 water distribution system, the water supply system shall be protected against backflow in
285 accordance with Section 608.14.1 or Section 608.14.2."

286 [~~(22)~~] (23) A new IPC, Section 608.17.11, is added as follows: " 608.17.11 Automatic
287 and coin operated car washes. The water supply to an automatic or coin operated car wash
288 shall be protected in accordance with Section 608.14.1 or Section 608.14.2."

289 [~~(23)~~] (24) IPC, Section 608.18, is deleted and replaced with the following: " 608.18
290 Protection of individual water supplies. See Section 602.3 for requirements."

291 Section 3. **Effective date.**

292 This bill takes effect on July 1, 2022.