

- 30 (4) **BACKFLOW** means the flow of water or other liquids, mixtures, gases, or
31 substances into the distribution pipes of a potable supply of water from sources
32 other than its intended source.
- 33 (5) **BACKFLOW PREVENTION ASSEMBLY** means an aggregation of devices, as
34 defined by the Manual of Cross-Connection Control, designed to prevent
35 backflow into the potable water system or the public water system, including a
36 reduced pressure principle backflow assembly, reduced pressure principle
37 detector backflow prevention assembly type 1 and 2, double-check valve
38 backflow prevention assembly, double check valve detector backflow prevention
39 assembly type 1 and 2, pressure vacuum breaker assembly, or spill-resistant
40 pressure vacuum breaker backflow prevention assembly.
- 41 (6) **BACKFLOW PREVENTION DEVICE** means a device designed to prevent
42 backflow into the potable water system.
- 43 (7) **BACKPRESSURE** means hydraulic or atmospheric pressure higher than the
44 supply pressure.
- 45 (8) **COMMISSION** means the Texas Commission on Environmental Quality.
- 46 (9) **CONTAINMENT PROTECTION** means an approved backflow prevention
47 assembly or air gap installed on the customer's water supply line immediately
48 downstream of the water meter.
- 49 (10) **CONTAMINATION** means an impairment of the quality of the potable water
50 that creates an actual hazard to the public health through poisoning or through the
51 spread of disease by sewage, industrial fluids, or waste. This includes high hazard
52 or health hazard.
- 53 (11) **CROSS-CONNECTION** means a physical connection to a potable water system
54 through which it is possible to introduce a health hazard or a non-health hazard.
- 55 (12) **CUSTOMER** means:
- 56 (a) an individual, partnership, association, firm, public or private corporation,
57 governmental authority, or other legal entity that receives City utility
58 service at a service address;

- 59 (b) an owner of property that is connected to the City’s utility service at a
60 service address, or
- 61 (c) a person who receives the benefit of the City’s utility service.
- 62 (13) DIRECTOR means the director of Austin Water or their designee.
- 63 (14) FLOW-THROUGH means a hydraulic condition on sites with interconnected
64 water service connections that results in any interconnected meter registering
65 reverse flow.
- 66 (15) MANUAL OF CROSS-CONNECTION CONTROL means the latest edition of
67 the University of Southern California’s Manual of Cross-Connection Control.
- 68 (16) ONSITE WATER RESUSE SYSTEM means an onsite water reuse system that
69 collects, treats and uses alternative water sources for non-potable uses at the
70 building to district or neighborhood scale, generally at a location near the point of
71 generation.
- 72 (17) PLUMBING SYSTEM means all:
- 73 (a) potable water, building supply, and distribution pipes;
- 74 (b) plumbing fixtures and traps;
- 75 (c) drainage and vent pipes; and
- 76 (d) building drains and building sewers, including their respective joints and
77 connections, devices, receptors, and appurtenances within the property
78 lines of the premises and includes potable water piping, alternate water
79 source systems, irrigation systems, potable water treating or using
80 equipment, medical gas and medical vacuum systems, liquid and fuel gas
81 piping, and water heaters and vents for same.
- 82 (18) POLLUTION means a cross-connection or other situation involving any
83 substance that generally will not be a health hazard, but will constitute a
84 nuisance, or be aesthetically objectionable, if introduced into the potable drinking
85 water supply. This includes a low hazard or non-health hazard.
- 86 (19) POTABLE ALTERNATE WATER SYSTEM means a plumbing system that has
87 an alternate water as its source and meets the standard of potable water.

- 88 (20) POTABLE RAINWATER SYSTEM means a potable alternate water system that
89 collects, stores, uses, and treats rainwater from a rooftop or other manmade
90 aboveground collection surface and meets the standard of potable water.
- 91 (21) POTABLE WATER means water that complies with the rules of the Commission
92 and Austin Public Health for human consumption and other domestic uses.
- 93 (22) PUBLIC WATER SYSTEM means a system for the provision of piped water for
94 human consumption as defined in 30 T.A.C. Section 290.38 (*Definitions*).
- 95 (23) RECLAIMED WATER means domestic or municipal wastewater which has been
96 treated to a quality suitable for a beneficial use, pursuant to the provisions of 30
97 T.A.C. Chapter 321 and other applicable rules and permits.
- 98 (24) SERVICE CONNECTION means the point of connection between the public
99 water system and the customer's water system.
- 100 (25) SINGLE-CHECK VALVE means an independently acting internally loaded
101 check valve.
- 102 (26) TESTABLE CHECK VALVE means a single check valve installed after the
103 meter and property owner's cut off valve with a test port installed between the
104 check valve and the property owner's cut off valve.
- 105 (27) TESTER means a person licensed by the State of Texas and registered with
106 Austin Water as a backflow prevention assembly tester, customer service
107 inspector, plumbing inspector or water supply protection specialist.
- 108 (28) USED WATER means water supplied by a public water system to a customer's
109 water system that has passed through the service connection and is no longer
110 under the control of the water purveyor.
- 111 (29) UTILITY means Austin Water.

112 **§ 15-1-3 RULEMAKING.**

113 The director may adopt rules under Chapter 1-2 (*Adoption of Rules*) to implement
114 and interpret this chapter that are not in conflict with this chapter, the Plumbing Code,
115 the Commission's rules and regulations for public water systems and applicable state
116 and federal law.

117 **§ 15-1-4 FEES.**

118 Council shall set the fees authorized by this chapter by separate ordinance.
119

120 **ARTICLE 2. CROSS CONNECTION CONTROL PROGRAM.**

121 **§ 15-1-11 CROSS CONNECTIONS PROHIBITED.**

122 (A) A person shall not:

- 123 (1) install, maintain, or allow to exist a potable water supply, plumbing fixture,
124 equipment, mechanism, or construction device that creates a cross-
125 connection, or allows reclaimed, contaminated, or polluted water, mixtures
126 or other substances, or gases, to enter the private or public potable water
127 system by backsiphonage, backpressure, or other means;
- 128 (2) connect an alternate water supply to the City's public water system or a
129 private plumbing system unless a backflow prevention assembly or air gap
130 is installed as required by this chapter;
- 131 (3) use a chemical or substance that may cause pollution or contamination of
132 the public or private potable water system without installing a backflow
133 prevention assembly or backflow prevention device as required by this
134 chapter;
- 135 (4) connect a reclaimed water system to the City's public water system or to
136 the potable water system of a customer who receives potable water service
137 from the City's public water system; or
- 138 (5) connect a vehicle or equipment capable of producing backsiphonage or
139 backpressure without installing a backflow prevention assembly or device
140 as required by this chapter.

141 (B) A person shall not install a backflow prevention assembly in a private plumbing
142 system, fire protection system, process water system, irrigation system, or other
143 water distribution system connected to the City's public water system unless:

- 144 (1) the assembly complies with Table 15-1-14-A;

- 145 (2) the assembly has been tested and listed as an approved backflow
146 prevention assembly by the most recent listing from the University of
147 Southern California Foundation for Cross Connection Control and
148 Hydraulic Research; and
- 149 (3) the installation complies with this chapter and the Plumbing Code.
- 150 (C) A person shall not install a backflow prevention device unless the installation
151 complies with this chapter and the Plumbing Code.
- 152 (D) A person shall not connect the public water system or a plumbing system to any
153 other source of potable or non-potable water without approval by the director.
- 154 (E) The director may not install or authorize the installation of a permanent water or
155 reclaimed water meter unless the customer's tester has submitted a test and
156 maintenance report for each backflow prevention assembly installed on a site and
157 all inspections are final as required by the Building Code.
- 158 (F) A person shall not use a backflow prevention assembly or backflow prevention
159 device unless:
- 160 (1) the backflow prevention assembly or backflow prevention device was
161 lawfully installed before April 21, 2025;
- 162 (2) the use, maintenance, or repair of the backflow prevention assembly or
163 device is in accordance with the original design and location; and
- 164 (3) no hazard to life, health, or property has been created by such installation.

165 **§ 15-1-12 CUSTOMER DUTIES.**

- 166
- 167 (A) A customer shall install a new, replacement, or reconditioned backflow prevention
168 assembly or backflow prevention device in accordance with this chapter and the
169 Plumbing Code.
- 170
- 171 (B) A customer shall have a new, replacement, or reconditioned backflow prevention
172 assembly tested upon installation by a tester.
- 173
- 174 (C) A customer shall maintain current contact information with Austin Water.
- 175

- 176 (D) Backflow prevention assemblies shall be tested in accordance with this subsection.
177
178 (1) A customer whose site has a backflow prevention assembly shall have a
179 tester test the backflow prevention assembly at least once a year on or before
180 the date established by the director if the backflow prevention assembly
181 protects:
- 182 (a) the potable water against a health hazard; or
 - 183 (b) the potable water against the following non-health hazards:
 - 184 (i) building isolation;
 - 185 (ii) fire hose cabinets;
 - 186 (iii) private fire hydrant;
 - 187 (iv) fire sprinkler; or
 - 188 (v) suite isolation.
- 189
190
191
192 (2) If necessary to protect the City’s public water system, the director may
193 require more frequent testing of backflow prevention assemblies by a tester.
194
195
196 (3) Each backflow prevention assembly shall be tested and reported in
197 accordance with the procedures of the Manual of Cross-Connection Control.
198
199
200 (4) After a new, replacement, or reconditioned backflow prevention assembly is
201 tested, the customer's tester shall immediately submit the backflow
202 prevention assembly test and maintenance report into Austin Water’s
203 electronic database. The tester shall provide a copy of the test and
204 maintenance report to the customer.
205
206
207
208
209 (E) A customer is responsible for the general maintenance and upkeep of a backflow
210 prevention assembly or backflow prevention device and shall pay the cost of
211 installation, replacement, general maintenance, testing, and upkeep of a backflow
212 prevention assembly or backflow prevention device as necessary to comply with
213 the requirements of this chapter.

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- (F) A customer shall repair or replace a backflow prevention assembly that fails a test before returning the backflow prevention assembly to service. The repaired assembly shall be retested by a tester immediately after repairs.
 - (G) If a backflow prevention assembly protecting against a high hazard fails, the customer is prohibited from turning on the downstream water until the backflow prevention assembly is repaired. This prohibition does not apply to fire sprinklers or critical care facilities.
 - (H) A customer may not remove from use, relocate, or substitute another backflow prevention device or backflow prevention assembly without the approval of the director. A replacement backflow prevention assembly must comply with this chapter.
 - (I) A customer shall replace a backflow prevention assembly or backflow prevention device that:
 - (1) is removed or relocated from an existing installation;
 - (2) the director determines cannot be repaired to pass any required testing; or
 - (3) constitutes a hazard to life, health, or safety.
 - (J) A person using a water-hauling vehicle to take water from the City’s public water system must obtain a water meter under Chapter 15-3 (*Fire Hydrant Regulation*); and
 - (1) permanently install an air gap or a reduced pressure principle backflow prevention assembly on the vehicle; or
 - (2) install a reduced pressure principle backflow prevention assembly on the fire hydrant or other connection to the City’s public water supply.
 - (K) On or before the date established by the director, a person using a water-hauling vehicle to take water from the City’s public water system must annually:

- 251 (1) have the vehicle inspected and permitted by the utility as required by
252 Chapter 15-3 (*Fire Hydrant Regulation*); and
253
254 (2) test the backflow prevention assembly and report the results of the test as
255 required by this chapter.
256

257 (L) Except as otherwise provided in Subsection (M), customers whose sites have
258 multiple interconnected water service connections shall install an approved
259 backflow prevention assembly appropriate for the site at each service connection
260

261 (M) For sites with existing service connections that complied with applicable
262 regulations when the service connections were installed and do not have backflow
263 prevention assemblies, the customer may install a testable check valve system at
264 any meter registering reverse flow in lieu of installing a backflow prevention
265 assembly. The customer shall test the check valve any time the meter registers
266 reverse flow. If the check valve fails to hold, the customer shall replace or repair
267 the check valve.
268

269 (N) Before taking potable water from a fire hydrant for use at a site, a customer must
270 obtain an operational permit required by Chapter 15-3 (*Fire Hydrant Regulation*)
271 and install and test a reduced pressure principle backflow prevention assembly
272 unless the customer is utilizing truck mounted water meters that **comply [complies]**
273 with this section.
274

275 **§ 15-1-13 IDENTIFICATION OF POTABLE AND NON-POTABLE WATER**
276 **SYSTEMS**
277

- 278 (A) Except as provided in Subsection (B), if potable water and non-potable water
279 systems are installed on the same site, the customer shall label and identify each
280 system in accordance with the following requirements:
281
282 (1) Each water system shall be identified with a colored pipe or sleeve and
283 coated with paints, wraps, and materials that are compatible with the piping.
284
285 (2) Potable water system pipes shall be identified with a green background and
286 white lettering.
287

- 288 (3) Except as otherwise provided by Subsections (A)(6), (7) and (8), a non-
289 potable water system shall have a yellow background with black uppercase
290 lettering and be marked with the words: “CAUTION: NON-POTABLE
291 WATER, DO NOT DRINK”.
- 292
- 293 (4) Potable or non-potable water systems shall be identified in a manner that
294 designates the liquid being conveyed and shows the direction of normal
295 flow. The minimum size of the letters and length of the color field shall
296 comply with Table 15-1-13-A.
- 297
- 298 (5) For piping above grade, the background color and the required information
299 shall be indicated every 20 feet (6,096 mm), on both sides of a wall or
300 partition penetrated by the piping, and at least once in every story height
301 traversed by the risers. The labeling shall be visible from the floor level. For
302 piping below grade, the background color and the required information must
303 be indicated every five feet (1,524 mm).
- 304
- 305 (6) All reclaimed water piping or onsite water reuse system piping inside a
306 building shall be purple pipe or painted purple (Pantone colors No. 5-12, 5-
307 22C or equivalent).
- 308
- 309 (7) All buried reclaimed water piping or onsite water reuse system water piping
310 must be either manufactured in purple, painted purple, taped with purple
311 metallic tape, or bagged in purple.
- 312
- 313 (8) An alternate water source system shall have a purple (Pantone colors No. 5-
314 12, 5-22C or equivalent) background with uppercase black lettering and
315 shall be field or factory marked as follows:
- 316
- 317 (a) An onsite water reuse system shall be marked with the words:
318 “CAUTION: NON-POTABLE ONSITE WATER REUSE SYSTEM,
319 DO NOT DRINK” in uppercase black letters.
- 320
- 321 (b) A reclaimed water system shall be marked with the words:
322 “CAUTION: NON-POTABLE RECLAIMED WATER SYSTEM,
323 DO NOT DRINK” in uppercase black letters.
- 324

- 325 (c) Other alternate water systems shall be marked with the words:
326 “CAUTION: NON-POTABLE ALTERNATE WATER SOURCE,
327 DO NOT DRINK” in uppercase black letters.
328
- 329 (B) A water system is not required to be labeled if:
330
- 331 (1) the system is for potable water inside a building and the non-potable system
332 does not enter the building; or
333
- 334 (2) the below grade pipe and components of an existing irrigation system are
335 converted to a reclaimed, onsite water reuse system water source, or other
336 water sources and have not been disturbed.
337
- 338 (C) Any repair, addition or alteration to an irrigation system, and all pipe and
339 components located above grade or accessible within a subsurface vault of an
340 existing irrigation system converted to alternate water, must be identified
341 consistent with Subsection (A) and 30 T.A.C. Section 344.65(3).
342
- 343 (D) Identification of the discharge side is not required for vacuum breakers or
344 backflow preventers installed with fixtures listed in Chapter 17 of the adopted
345 Plumbing Code .
346
- 347 (E) Each outlet on a non-potable water line that is used for special purposes shall be
348 posted with a sign with black uppercase lettering as follows: “CAUTION: NON-
349 POTABLE WATER, DO NOT DRINK”.
350

351 **TABLE 15-1-13-A MINIMUM LENGTH OF COLOR FIELD AND SIZE OF**
352 **LETTERS**

OUTSIDE DIAMETER OF PIPE OR COVERING (inches)	MINIMUM LENGTH OF COLOR FIELD (inches)	MINIMUM SIZE OF LETTERS (inches)
½ to 1 ¼	8	½
1 ½ to 2	8	¾
2 ½ to 6	12	1 ¼
8-10	24	2 ½
OVER 10	32	3 ½

353
354
355 **§ 15-1-14 CROSS CONNECTION CONTROL. ASSEMBLIES, DEVICES AND**
356 **METHODS.**
357

- 358 (A) The following types of backflow prevention devices, assemblies, and methods can
359 be used for cross connection:
360
- 361 (1) Air Gap: If used to provide backflow protection, the minimum air gap shall
362 be designed in accordance with Table 15-1-14-B.
363
 - 364 (2) Atmospheric Vacuum Breaker: A body, a checking member, and an
365 atmospheric port.
366
 - 367 (3) Hose Connection Backflow Preventer: Two independent check valves with
368 an independent atmospheric vent in between and a means of field testing and
369 draining.
370
 - 371 (4) Double Check Valve Backflow Prevention Assembly: Two independently
372 acting internally loaded check valves, four properly located test ports, and
373 two isolation valves.
374
 - 375 (5) Pressure Vacuum Breaker Backflow Prevention Assembly (PVB): A loaded
376 air inlet valve, an internally loaded check valve, two properly located test
377 ports, and two isolation valves. This device shall be permitted to be installed
378 indoors where provisions for spillage are provided.
379
 - 380 (6) Spill-Resistant Pressure Vacuum Breaker: One check valve force loaded
381 closed and an air inlet vent valve force loaded open to atmosphere,
382 positioned downstream of the check valve and located between and
383 including two tightly closing shutoff valves and test ports.
384
 - 385 (7) Reduced Pressure Principle Backflow Prevention Assembly: Two
386 independently acting internally loaded check valves, a differential pressure
387 relief valve, four properly located test ports, and two isolation valves.
388

- 389 (8) Double Check Detector Fire Protection Backflow Prevention Assembly: A
390 double check valve assembly with a parallel detector assembly consisting of
391 a water meter and a double check valve backflow prevention assembly.
392
- 393 (9) Double Check Detector Fire Protection Backflow Prevention Assembly
394 Type II (DCDA II): A double check valve assembly with a parallel bypass
395 consisting of two shutoff valves, two test ports, a meter, and a single check
396 valve. This bypass assembly connects upstream and downstream of the main
397 second check valve.
398
- 399 (10) Reduced Pressure Detector Fire Protection Backflow Prevention Assembly
400 (RP): A reduced pressure principle backflow prevention assembly with a
401 parallel detector assembly consisting of a water meter and a reduced
402 pressure principle backflow prevention assembly.
403
- 404 (11) Reduced Pressure Detector Fire Protection Backflow Prevention Assembly
405 Type II: Two shutoff valves, two test ports, a meter, and a single check
406 valve. This bypass assembly connects upstream and downstream of the main
407 second check valve and utilizes the reduced pressure zone and relief valve of
408 the main assembly.
409
- 410 (12) Dual Check Backflow Preventer: Two independently acting check valves,
411 force loaded to a normally closed position.
412
- 413 (13) Laboratory Faucet Backflow Preventer can be used if it complies with ASSE
414 1035.
415
- 416 (14) Backflow Preventer with Intermediate Atmospheric Vent: Two
417 independently acting check valves, force loaded to a normally closed
418 position and an intermediate chamber with a means for automatically
419 venting to the atmosphere, force loaded to a normally open position.
420
- 421 (B) The following requirements apply to backflow prevention devices, assemblies and
422 methods used in cross connection:
423
- 424 (1) Where more than one backflow prevention valve is installed on a single
425 premise, and the valves are installed in one location, each separate valve
426 shall be permanently identified in a manner satisfactory to the utility.

- 427
- 428 (2) Backflow prevention devices, assemblies, and methods shall be constructed
- 429 with adequate access and clearance, in accordance with the manufacturer's
- 430 instructions, and with not less than 12 inches (305 mm) between the lowest
- 431 portion of the assembly and the grade, floor, or platform. Elevated
- 432 installations of backflow prevention devices, assemblies, and methods that
- 433 exceed five feet (1,524 mm) above the floor or grade shall be required to
- 434 provide a platform capable of supporting a technician.
- 435
- 436 (3) Direct connection between potable water piping and sewer-connected wastes
- 437 is prohibited. If potable water is discharged to the drainage system, it can
- 438 only be discharged through an approved air gap of two pipe diameters of the
- 439 supply inlet, but in no case shall the gap be less than one inch (25.4 mm).
- 440 Connection shall be permitted to be made to the inlet side of a trap provided
- 441 that an approved vacuum breaker is installed not less than six inches (152
- 442 mm) or the distance according to the backflow prevention device's listing,
- 443 above the flood-level rim of such trapped fixture, so that at no time will such
- 444 device be subjected to backpressure.
- 445
- 446 (4) Backflow preventers for hot water exceeding 110°F (43°C) shall be designed
- 447 to operate at temperatures above 110°F (43°C) without rendering a portion
- 448 of the assembly inoperative.
- 449
- 450 (5) Fixtures, appliances, or appurtenances with integral backflow preventer or
- 451 integral air gaps manufactured as a unit shall be installed in accordance with
- 452 their listing requirements and the manufacturer's installation instructions.
- 453
- 454 (6) Backflow assemblies and devices shall be protected from freezing with an
- 455 outdoor enclosure that complies with ASSE 1060 or by a method acceptable
- 456 to the utility.
- 457
- 458 (7) Drain lines serving backflow devices or assemblies shall be sized in
- 459 accordance with the discharge rates of the manufacturer's flow charts for
- 460 such devices or assemblies.
- 461
- 462 (8) Backflow prevention devices with atmospheric vents or ports shall not be
- 463 installed in pits, underground, or submerged locations. A backflow preventer

464 shall not be located in an area containing fumes that are toxic, poisonous, or
465 corrosive.

466
467 (9) Except for potable water supplied to carbonators, a separate backflow
468 prevention assembly or device shall be installed on a high hazard
469 appurtenance or fixture in high hazard situations when water or product is
470 intended for contact with humans either directly (consumption, bathing,
471 medical uses, dental chairs, pharmaceuticals, etc.) or indirectly (sterilization,
472 autoclaves, washing dishes or bottles, canning, etc.).

473
474 (10) Potable water supplied to carbonators shall be protected with a listed
475 reduced pressure principle backflow preventer that is approved by the utility
476 for that specific use. A single reduced pressure principle backflow
477 prevention assembly may be installed for multiple carbonators that are
478 located in the same immediate physical area if all water piping from the
479 backflow preventer to the carbonator is exposed. Piping downstream of
480 backflow protection for carbonators cannot be affected by carbon dioxide
481 gas.

482
483 (11) If no human contact is intended for a water line downstream of a backflow
484 prevention assembly or backflow prevention device, then a single backflow
485 prevention assembly or backflow prevention device may be installed for
486 multiple high hazard appurtenances or fixtures. Each water line downstream
487 of the backflow protection must be labeled consistent with Section 15-1-
488 13(A)(3).

489
490 (12) In low hazard situations that service multiple low hazards of the same type
491 and are located in the same immediate physical area, a single backflow
492 prevention assembly or device may be installed if all piping downstream of
493 the backflow preventer is exposed. Each water line downstream of the
494 backflow protection must be labeled consistent with the requirements for
495 non-potable water piping.

496
497 (C) Additional Requirements for backflow prevention: In addition to the requirements
498 of Subsection (B), the following will apply depending on the type of device being
499 installed, as outlined below:
500

- 501 (1) Atmospheric Vacuum Breakers. Water closet and urinal flushometer valves
502 shall be protected against backflow by an atmospheric vacuum breaker
503 installed on the discharge side of the flushometer valve with the critical level
504 not less than six inches (152 mm), or the distance according to its listing,
505 above the overflow rim of a water closet bowl or the highest part of a urinal.
506
- 507 (2) Ballcock. Water closet and urinal tanks shall be equipped with a ballcock
508 installed with the critical level not less than one inch (24.4 mm) above the
509 full opening of the overflow pipe. In cases where the ballcock has no hush
510 tube, the bottom of the water supply inlet shall be installed one inch (24.4
511 mm) above the full opening of the overflow pipe.
512
- 513 (3) Water Closet Flushometer Tanks. Water closet flushometer tanks shall be
514 protected against backflow by an approved backflow prevention assembly,
515 device, or method.
516
- 517 (4) Heat Exchangers. Heat exchangers used for heat transfer, heat recovery, or
518 solar heating shall protect the potable water system from being contaminated
519 by the heat-transfer medium. Single wall heat exchangers used in indirect-
520 fired water heaters shall meet the requirements for single-wall heat
521 exchangers in Section 505.4.1 of the Plumbing Code.
522
- 523 (5) Water Supply Inlets. Water supply inlets to tanks, vats, sumps, and other
524 receptors shall be protected by an air gap, a listed vacuum breaker installed
525 on the discharge side of the last valve with the critical level not less than six
526 inches (152mm) above all downstream piping and the flood level rim of the
527 receptor, or a backflow prevention assembly suitable for the degree of
528 hazard.
529
- 530 (6) Lawn Sprinklers and Irrigation Systems. Potable water to lawn sprinklers
531 and irrigation systems that lack pumps or connections for pumping
532 equipment and lack chemical injection or the provisions for chemical
533 injection must be protected from backflow using one of the following:
534
- 535 (a) pressure vacuum breaker backflow prevention assembly;
 - 536
 - 537 (b) spill-resistant pressure vacuum breaker;
 - 538

- 539 (c) reduced pressure principle backflow prevention assembly; or
540
541 (d) double check valve assembly.
542
- 543 (7) Systems with Pumps. If sprinkler and irrigation systems have pumps, or
544 connections for pumps, auxiliary air tanks, or are otherwise capable of
545 creating backpressure, the potable water supply shall be protected by a
546 reduced pressure principle backflow prevention assembly or double check
547 valve located upstream of the source of backpressure.
548
- 549 (8) Systems with Backflow Devices. The backflow device installed
550 downstream from a potable water supply pump or a potable water supply
551 pump connection must be a:
552
- 553 (a) pressure vacuum breaker backflow prevention assembly;
554
555 (b) spill-resistant pressure vacuum breaker;
556
557 (c) reduced pressure principle backflow prevention assembly or
558
559 (d) double check valve assembly.
560
- 561 (9) Systems with chemical injectors. The potable water supply shall be protected
562 by a reduced pressure principle backflow prevention assembly in a system
563 with a chemical injector or provisions for chemical injection.
564
- 565 (10) Outlets with Hose Attachments. Potable water outlets with hose attachments,
566 other than water heater drains, boiler drains, and clothes washer connections,
567 shall be protected by a nonremovable hose bib type backflow preventer, a
568 nonremovable hose bib vacuum breaker, or an atmospheric vacuum breaker
569 installed not less than six inches (152 mm) above the highest point of usage
570 located on the discharge side of the last valve. The customer shall install
571 protective measures to mitigate outside outlets from freezing.
572
- 573 (11) Water Cooled Equipment. Water cooled compressors, degreasers, or other
574 equipment shall be protected with appropriate backflow prevention based
575 on the type of hazard present.
576

- 577 (12) Aspirators. Water inlets to water-supplied aspirators shall be equipped with a
578 vacuum breaker installed in accordance with its listing requirements and this
579 chapter. The discharge shall drain through an air gap. The air gap shall be
580 located above the flood-level rim of the fixture if a fixture tailpiece is to be
581 used to receive the discharge of an aspirator.
582
- 583 (13) Steam or Hot Water Boilers. Potable water connections to residential steam
584 or hot water boilers shall be protected from backflow by a double check
585 valve assembly, backflow preventer with intermediate atmospheric vent and
586 pressure reducing valve, or reduced pressure principle assembly in
587 accordance with Table 15-1-14-A. A reduced pressure principle assembly
588 shall be provided if chemicals are to be introduced into the system.
589
- 590 (14) Non-Potable Water Piping. Outlets on non-potable water lines shall be
591 posted with a sign: “CAUTION: NON-POTABLE WATER, DO NOT
592 DRINK.”
593
- 594 (15) Beverage Dispensers. Except as otherwise provided in Subsection (C)(17),
595 the potable water supply to a beverage dispenser or coffee machine shall be
596 protected by an air gap, double check valve assembly, or vented backflow
597 preventer consistent with ASSE 1022, installed and maintained per the
598 manufacturer’s requirements.
599
- 600 (16) Carbonated Beverage Dispenser. The potable water supply to a carbonated
601 beverage dispenser shall be protected by an air gap or a reduced pressure
602 principle assembly. The piping material installed downstream of the
603 backflow preventer cannot be affected by carbon dioxide gas.
604
- 605 (17) Beverage Dispenser in Healthcare Facilities. The potable water supply to a
606 beverage dispenser or coffee machine that is located within a healthcare
607 facility subject to NFPA 99 shall be protected by a testable backflow
608 prevention assembly.
609
- 610 (18) Deck-Mounted and Equipment Mounted Vacuum Breakers. Deck-mounted
611 or equipment-mounted vacuum breakers shall be installed in accordance
612 with their listing and the manufacturer’s installation instructions, with the
613 critical level not less than one inch (25.4 mm) above the flood-level rim.
614

615 (19) Protection from Fire Systems.

616
617 (a) Potable water supplies to fire protection systems that are not normally
618 under pressure shall be protected from backflow and shall be in
619 accordance with the requirements of the appropriate standards
620 referenced in the Plumbing Code.

621
622 (b) Except as provided in Subsections (C)(20) and (21), potable water
623 supplies to fire protection systems that are normally under pressure
624 including standpipes and automatic sprinkler systems shall be
625 protected from backpressure and backsiphonage by:

626
627 (i) a double check valve backflow prevention assembly;

628
629 (ii) a double check detector fire protection backflow prevention
630 assembly type 1 and 2;

631
632 (iii) a reduced pressure principle backflow prevention assembly; or

633
634 (iv) a reduced pressure detector fire protection backflow prevention
635 assembly type 1 and 2.

636
637 (20) Fire Department Connection. Where fire protection systems supplied from a
638 potable water system include a fire department (Siamese) connection that is
639 located less than 1700 feet (518.2 m) from a non-potable water source that is
640 capable of being used by the fire department as a secondary water supply,
641 the potable water supply shall be protected by a reduced pressure principle
642 backflow prevention assembly or a reduced pressure detector fire protection
643 backflow prevention assembly. In this subdivision, non-potable water
644 sources include fire department vehicles carrying water of unknown quality
645 or water that is treated with antifreeze, corrosion inhibitors, or extinguishing
646 agents.

647
648 (21) Chemicals. If antifreeze, corrosion inhibitors, or other chemicals are added
649 to a fire protection system supplied from a potable water supply, the potable
650 water system shall be protected by a reduced pressure principle backflow
651 prevention assembly or a reduced pressure detector fire protection backflow
652 prevention assembly.

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- (22) Types of Residential Systems. This subdivision applies to a stand-alone or multipurpose wet-pipe sprinkler system that does not use antifreeze. A multipurpose fire sprinkler system must provide potable water to both fire sprinklers and plumbing fixtures. A stand-alone sprinkler system must be separate and independent from the potable water system. A double check backflow prevention assembly must separate a stand-alone sprinkler system from the potable water supply.
 - (23) Hydraulic Design. If a backflow prevention assembly is installed in the potable water supply to a fire protection system, the hydraulic design of the system shall account for the pressure drop through the backflow assembly. If such assemblies are retrofitted for an existing fire protection system, the hydraulics of the sprinkler system design shall be checked to verify that there will be sufficient water pressure available for satisfactory operation of the fire sprinklers.
 - (24) Protection of Potable Mains. Private fire hydrants located at a distance from a private potable water main such that the volume of water in the hydrant lead is more than 100 gallons shall have double check backflow prevention assembly protection.
 - (25) Health Care or Laboratory Areas. Vacuum breakers for washer-hose bedpans shall be located not less than five feet (1524 mm) above the floor. Hose connections in health care or laboratory areas shall be not less than six feet (1829 mm) above the floor.
 - (26) Special Equipment. Portable cleaning equipment and dental vacuum pumps shall be protected from backflow by an air gap, an atmospheric vacuum breaker, a spill-resistant vacuum breaker, or a reduced pressure principle backflow preventer.
 - (27) Potable Water Outlets and Valves. Potable water outlets, freeze-proof yard hydrants, combination stop-and-waste valves, or other fixtures that incorporate a stop and waste feature that drains into the ground shall not be installed underground.

- 690 (28) Pure Water Process Systems. The water supply to a pure water process
691 system, such as dialysis water systems, semiconductor washing systems, and
692 similar process piping systems, shall be protected from backpressure and
693 backsiphonage by a reduced pressure principle backflow preventer.
694 However, the individual connections of the dialysis related equipment to the
695 dialysis pure water system shall not require additional backflow protection.
696
- 697 (29) Garbage Can Washers. If garbage can washers are connected to a potable
698 water supply system, the connection shall be protected against backflow
699 with a reduced pressure principle backflow prevention assembly.
700
- 701 (30) Plumbing Fixture Fittings. Plumbing fixture fittings with integral backflow
702 protection shall comply with ASME A 112.18.1/CSA B 125.1.
703
- 704 (31) Swimming Pools, Spas, and Hot Tubs. Potable water supply to swimming
705 pools, spas, and hot tubs shall be protected by an air gap or a reduced
706 pressure principle backflow preventer if the unit is equipped with a
707 submerged fill line, or the potable water supply is directly connected to the
708 unit circulation system.
709
- 710 (32) Chemical Dispensers. The water supply to chemical dispensers shall be
711 protected against backflow as follows:
712
- 713 (a) If the installation of a chemical dispenser with internal backflow
714 prevention that complies with IAPMO 1055 involves a water source
715 from a faucet with an integrated vacuum breaker device, then a
716 pressure bleed device conforming to IAPMO PS 104 shall be used to
717 protect the vacuum breaker device.
718
- 719 (b) For all other chemical dispensers, the following assemblies, devices,
720 or methods can be used:
721
- 722 (i) air gap
723
- 724 (ii) atmospheric vacuum breaker
725
- 726 (iii) pressure vacuum breaker
727

- 728 (iv) spill-resistant pressure vacuum breaker or
729
730 (v) reduced pressure principle backflow prevention assembly
731
732 (33) Site Containment Backflow Prevention Requirements.
733
734 (a) A site that utilizes an alternate water source shall provide an air gap or
735 an appropriate backflow prevention assembly located immediately
736 downstream of all potable City water meters and City service lines to
737 private fire lines in accordance with Table 15-1-14-C.
738
739 (b) A site that contains an actual or potential contamination hazard shall
740 provide an air gap or an appropriate backflow prevention assembly
741 located immediately downstream of all potable City water meters and
742 City service lines to private fire lines in accordance with Table 15-1-
743 14-D.
744
745 (c) A non-potable rainwater catchment or non-potable condensate
746 collection system of 500 gallons or less does not require backflow
747 prevention at the potable water meter.
748
749 (34) Cooling Tower Reservoirs. A water supply outlet that terminates inside the
750 envelope of a cooling tower shall be protected with a reduced pressure
751 principle backflow prevention assembly. A water supply outlet that
752 terminates outside the envelope of a cooling tower shall be protected by an
753 air gap or a reduced pressure principle backflow prevention assembly.
754
755 (35) Commercial Dishwashing Machine. The water supply to a commercial
756 dishwashing machine shall be protected by an air gap, an atmospheric
757 backflow preventer, a pressure vacuum breaker, a spill resistant vacuum
758 breaker, or a device that complies with ASSE 1004.
759
760 (36) Personal Hygiene Devices. Water closets with integral personal hygiene
761 devices shall comply with ASME A112.4.2/CSA B45.16.
762
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764

TABLE 15-1-14-A
BACKFLOW PREVENTION DEVICES, ASSEMBLIES, AND METHODS
DEGREE OF HAZARD

DEVICE, ASSEMBLY, OR METHOD ¹	APPLICABLE STANDARDS	LOW HAZARD		HIGH HAZARD		INSTALLATION ^{2,3}
		BACK-SIPHONAGE	BACK-PRESSURE	BACK-SIPHONAGE	BACK-PRESSURE	
Air gap	ASME A112.1.2	X	—	X	—	See Table 15-1-14-B.
Air gap fittings for use with plumbing fixtures, appliances, and appurtenances	ASME A112.1.3	X	—	X	—	Air gap fitting is a device with an internal air gap, and typical installation includes plumbing fixtures, appliances, and appurtenances. The critical level shall not be installed below the flood level rim.
Atmospheric vacuum breaker (consists of a body, checking member and atmospheric port)	ASSE 1001 or CSA B64.1.1	X	—	X	—	Upright position. No valve downstream. Minimum of six inches or listed distance above all downstream piping and flood level rim of receptor. ^{4,5}
Antisiphon fill valve (ballcocks) for gravity water closet flush tanks and urinal tanks	ASSE 1002/ ASME A112.100 2/ CSA B125.12	X	—	X	—	Installation of gravity water closet flush tank and urinal tanks with the fill valve installed with the critical level not less than 1 inch above the opening of the overflow pipe. ^{4,5}
Vacuum breaker wall hydrants, hose bibbs, freeze resistant, automatic draining type	ASSE 1019 or CSA B64.2.1.1	X	—	X	—	Installation includes wall hydrants and hose bibbs. Such devices are not for use under continuous pressure conditions (means of shutoff

						downstream of device is prohibited). ^{4,5}
Hose connection vacuum breakers	ASSE 1011	X	—	X	—	Such devices are not for use under continuous pressure conditions. No valve downstream. ^{4,6}
Hose connection back-flow preventers	ASSE 1052	X	—	X	—	Such devices are not for use under continuous pressure conditions. ^{4,6}
Dual check backflow preventer wall hydrants, freeze resistant	ASSE 1053	X	—	X	—	Such devices are not for use under continuous pressure conditions. ⁴
Freeze resistant sanitary yard hydrants	ASSE 1057	X	—	X	—	Such devices are not for use under continuous pressure conditions. ⁴

TABLE 15-1-14-A
BACKFLOW PREVENTION DEVICES, ASSEMBLIES, AND METHODS
 (continued)

DEVICE, ASSEMBLY, OR METHOD ¹	APPLICABLE STANDARDS	DEGREE OF HAZARD				INSTALLATION ^{2,3}
		(LOW HAZARD)		(HIGH HAZARD)		
		BACK-SIPHONAGE	BACK-PRESSURE	BACK-SIPHONAGE	BACK-PRESSURE	
Backflow preventer with intermediate atmospheric vent	ASSE 1012	X	X	—	—	Installation of potable water connections to residential water boilers. No high-hazard chemicals shall be introduced into the system using such devices. Designed to operate under continuous pressure conditions. May discharge water.

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Backflow preventer with intermediate atmospheric vent and pressure reducing valve	ASSE 1081	X	X	—	—	Installation of potable water connections to residential water boilers. No high-hazard chemicals shall be introduced into the system using such devices. Designed to operate under continuous pressure conditions. May discharge water.
Backflow preventer for beverage dispensers (two independent check valves with a vent to the atmosphere)	ASSE 1022	X	—	—	—	Installation does not include carbonated beverage machines or dispensers. Installation and maintenance must comply with manufacturer’s requirements. These devices operate under intermittent or continuous pressure conditions.
Spill-Resistant Pressure Vacuum Breaker (single check valve with air inlet vent and means of field testing)	USC FCCHR ⁷	X	—	X	—	Upright position. Minimum of 12 inches or listed distance above all downstream piping and flood-level rim of receptor. ⁵
Double Check Valve Backflow Prevention Assembly (two independent check valves and means of field testing)	USC FCCHR ⁷	X	X	—	—	Horizontal unless otherwise listed. Access and clearance shall be in accordance with the manufacturer’s instructions, and not less than a 12-inch clearance at the bottom for maintenance. May need

						platform/ladder for test and repair. Does not discharge water.
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TABLE 15-1-14-A
BACKFLOW PREVENTION DEVICES, ASSEMBLIES, AND METHODS
 (continued)

DEVICE, ASSEMBLY, OR METHOD ¹	APPLICABLE STANDARDS	DEGREE OF HAZARD				INSTALLATION ^{2,3}
		POLLUTION (LOW HAZARD)		CONTAMINATION (HIGH HAZARD)		
		BACK-SIPHONAGE	BACK-PRESSURE	BACK-SIPHONAGE	BACK-PRESSURE	
Double Check Detector Fire Protection Backflow Prevention Assembly Type 1 & 2 (two independent check valves with a parallel detector assembly consisting of a water meter and a double check valve backflow prevention assembly and means for field testing)	USC FCCCHR ⁷	X	X	—	—	Horizontal unless otherwise listed. Access and clearance shall be in accordance with the manufacturer's instructions, and not less than a 12-inch clearance at the bottom for maintenance. May need platform/ladder for test and repair. Does not discharge water. Installation includes a fire protection system and is designed to operate under continuous pressure conditions.

<p>Pressure Vacuum Breaker Backflow Prevention Assembly (loaded air inlet valve, internally loaded check valve, and means for field testing)</p>		<p>X</p>	<p>—</p>	<p>X</p>	<p>—</p>	<p>Upright position. May have valves downstream. Minimum of 12 inches above all downstream piping and flood-level rim of the receptor. May discharge water.</p>
<p>Reduced Pressure Principle Backflow Prevention Assembly (two independently acting loaded check valves, a differential pressure relief valve and means for field testing)</p>	<p>USC FCCHR⁷</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>Horizontal unless otherwise listed. Access and clearance shall be in accordance with the manufacturer’s instructions, and not less than a 12-inch clearance at the bottom for maintenance. May need platform/ladder for test and repair. May discharge water.</p>
<p>Reduced Pressure Detector Fire Protection Back-flow Prevention Assembly Type 1 & 2 (two independently acting loaded check valves, a differential pressure relief valve, with a parallel detector assembly consisting of a water meter and a reduced-pressure principle backflow prevention assembly, and means for field testing)</p>	<p>USC FCCHR⁷</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>X</p>	<p>Horizontal unless otherwise listed. Access and clearance shall be in accordance with the manufacturer’s instructions, and not less than a 12-inch clearance at the bottom for maintenance. May need platform/ladder for test and repair. May discharge water. Installation includes a fire protection system and is designed to operate under continuous pressure conditions.</p>

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TABLE 15-1-14-A
BACKFLOW PREVENTION DEVICES, ASSEMBLIES, AND METHODS
 (continued)

DEGREE OF HAZARD						
DEVICE, ASSEMBLY, OR METHOD ¹	APPLICABLE STANDARDS	POLLUTION (LOW HAZARD)		CONTAMINATION (HIGH HAZARD)		INSTALLATION ^{2,3}
		BACK-SIPHONAGE	BACK-PRESSURE	BACK-SIPHONAGE	BACK-PRESSURE	
Laboratory faucet back-flow preventer	ASSE 1035	—	—	X	X	Installation includes laboratory faucets. Such devices are not for use under continuous pressure conditions. No valve downstream. ⁴

For SI units: 1 inch = 25.4 mm

Table Notes:

- 1 See the description of devices and assemblies in this chapter.
- 2 Installation in pit or vault requires previous approval by the utility.
- 3 Refer to the general and specific requirement for installation.
- 4 Not to be subjected to operating pressure for more than 12 hours in a 24 hour period.
- 5 For deck-mounted and equipment-mounted vacuum breaker, see Section 15-1-14(C)(18)
- 6 Shall be installed in accordance with Section 15-1-14(C)(10)
- 7 Current list of approved backflow prevention assemblies, University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.

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TABLE 15-1-14-B
MINIMUM AIR GAPS FOR WATER DISTRIBUTION⁴

FIXTURES	NOT AFFECTED BY SIDEWALLS ¹ (inches)	AFFECTED BY SIDEWALLS ² (inches)
Effective openings ³ not greater than ½ of an inch in diameter	1	1½
Effective openings ³ not greater than ¾ of an inch in diameter	1½	2¼

Effective openings ³ not greater than 1 inch in diameter	2	3
Effective openings ³ greater than 1 inch in diameter	Two times the diameter of the effective opening	Three times the diameter of the effective opening

Notes:

1. Sidewalls, ribs, or similar obstructions do not affect air gaps if spaced from the inside edge of the spout opening a distance exceeding three times the diameter of the effective opening for a single wall, or a distance exceeding four times the effective opening for two intersecting walls.
2. Vertical walls, ribs, or similar obstructions extending from the water surface to or above the horizontal plane of the spout opening other than specified in Footnote 1 above affect air gaps. The effect of three or more such vertical walls or ribs has not been determined. In such cases, the air gap shall be measured from the top of the wall.
3. The effective opening shall be the minimum cross-sectional area at the seat of the control valve or the supply pipe or tubing that feeds the device or outlet. If two or more lines supply one outlet, the effective opening shall be the sum of the cross-sectional areas of the individual supply lines or the area of the single outlet, whichever is smaller.
4. Air gaps less than one inch (25.4 mm) shall be approved as a permanent part of a listed assembly that has been tested under actual backflow conditions with vacuums of 0 to 25 inches of mercury (85 kPa).

TABLE 15-1-14-C

ALTERNATE WATER SITE CONTAINMENT BACKFLOW PREVENTION

List of Auxiliary Water Sources and Uses ¹		Backflow prevention required at potable water connection			Backflow protection required at point of interconnection with potable water
		Domestic water meter ²	Irrigation water meter ²	City service to private fire mains ^{2,3,4,5}	
Lake/River water		RP	RP	DC	RP
Well water		RP	RP	DC	RP
Condensate water	Gravity	-	DC ⁵	DC	RP
	Pumped	RP	RP	DC	RP
Rainwater	Gravity	-	DC ⁵	DC	RP
	Pumped	RP	RP	DC	RP
Assemblies Gray water	Gravity	-	DC ⁵	DC	AG
	Pumped	RP	RP	DC	AG
Reclaimed water ⁶		RP	RP	DC	AG
Other water supply ⁷		RP	RP	DC	AG

Table Notes:

RP: reduced pressure zone backflow prevention assembly.

DC: double check backflow prevention assembly

AG: air gap.

1 If multiple sources of alternate water are used, all backflow protection must meet the most stringent requirements of the sources used.

2 A backflow prevention assembly installed at the potable service connection of a site served by an alternate water source must have an annual operational test.

List of Auxiliary Water Sources and Uses ¹	Backflow prevention required at potable water connection			Backflow protection required at point of interconnection with potable water
	Domestic water meter ²	Irrigation water meter ²	City service to private fire mains ^{2,3,4,5}	

3 A new backflow prevention assembly installed in an existing fire system may result in the need to re-calculate fire system design specifications due to backflow preventer pressure losses.

4 A backflow prevention assembly installed in an un-metered fire system is required to be a detector assembly.

5 These backflow prevention assemblies are required regardless of the presence of alternate water.

6 When a chemical addition system is used (e.g., fertigation) a DC will be required on the reclaimed water service connection.

7 Other water supply includes all other alternate waters not listed in the table.

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TABLE 15-1-14-D
SITE CONTAINMENT FOR PREMISES ISOLATION

Description of Premises requiring site containment ³	Hazard Assessment	Required backflow prevention at meter/s ¹	Required backflow prevention at private un-metered fire mains ^{1,2}
Aircraft, automotive and missile plants	Health	RP or AG	DCDA
Animal feedlots	Health	RP or AG	DCDA
Breweries	Health	RP or AG	DCDA
Canneries, packing houses, rendering plants, slaughterhouses	Health	RP or AG	DCDA
Commercial car washes	Health	RP or AG	DCDA
Commercial laundries	Health	RP or AG	DCDA
Cold storage facilities	Health	RP or AG	DCDA
Dairies	Health	RP or AG	DCDA

Docks, dockside facilities, marinas	Health	RP or AG	DCDA
Dye works	Health	RP or AG	DCDA
Food and beverage processing plants	Health	RP or AG	DCDA
Hospitals, morgues, mortuaries, medical clinics, dental clinics, veterinary clinics, autopsy facilities, sanitariums, and medical labs	Health	RP or AG	DCDA
Metal manufacturing, cleaning, processing, and fabrication plants	Health	RP or AG	DCDA
Microchip fabrication facilities	Health	RP or AG	DCDA
Paper and paper products plants	Health	RP or AG	DCDA
Petroleum processing or storage facilities	Health	RP or AG	DCDA
Plants using radioactive material	Health	RP or AG	DCDA
Plating or chemical plants	Health	RP or AG	DCDA
Power plants	Health	RP or AG	DCDA
Restricted, classified, or other closed facilities	Health	RP or AG	DCDA
Rubber plants	Health	RP or AG	DCDA
Sewage lift stations	Health	RP or AG	DCDA
Sewage treatment plants	Health	RP or AG	DCDA
Steam plants	Health	RP or AG	DCDA
Sites where highest outlet is 80' or more above the meter	Nonhealth	DC	DCDA

Table Notes:

RP: reduced pressure principle backflow prevention assembly.

DC: double check backflow prevention assembly

AG: air gap.

1 Backflow preventers shall be tested annually.

2 A backflow prevention assembly installed on an existing fire system may result in the need to re-calculate fire design specifications due to pressure loss through the backflow preventer.

3 This table lists many common hazards. It is not an all-inclusive list of the hazards which may be found connected to public water systems.

§ 15-1- 15 CROSS CONNECTION SURVEY.

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- 817 (A) The director may conduct a cross-connection survey of the customer’s potable
818 water system as a condition of service to prevent or eliminate cross connections
819 between the customer’s potable water system and contamination or pollution
820 sources.
821
- 822 (B) The director shall inspect:
823
- 824 (1) a building and surrounding property for potential cross connections;
 - 825 (2) the availability of an alternate or reclaimed water supply;
 - 826 (3) the use of a pollutant, contaminant, and other liquid, solid, or gaseous
827 substance;
 - 828 (4) installation of backflow prevention assemblies or backflow prevention
829 devices; and
 - 830 (5) backflow prevention assembly certification and test records.
- 831
832
833 (C) The director shall require a customer to eliminate possible cross connections
834 between the customer’s potable water systems and the public water supply as
835 provided in Article 5 (*Enforcement*).
836
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840 **§ 15-1- 16 RETENTION OF RECORDS.**
841

- 842 (A) A customer or any person installing, testing, or maintaining a backflow prevention
843 device or assembly shall retain and make available for inspection and copying by
844 the director backflow prevention assembly test and maintenance records, cross-
845 connection test and inspection records, customer service inspection records, and
846 any other information required by this chapter.
847
- 848 (B) Unless federal or state law requires information to be retained for a longer period, a
849 person described in Subsection (A) shall retain all backflow and cross-connection
850 test and inspection records under this chapter for at least three years from the date
851 the record is created, and all customer service inspection records under this chapter
852 for at least 10 years from the date the record is created.
853
- 854 (C) The records retention period is automatically extended for:

- 855
856 (1) the duration of compliance litigation under this chapter; or
857
858 (2) a longer period set by an enforcement order issued under this chapter.
859

860 (D) All records required by this chapter shall be on forms approved by the director.
861

862 **§ 15-1-17 CUSTOMER SERVICE INSPECTIONS.**

863
864 (A) A customer service inspection shall be performed in accordance with the
865 commission's rules when:

- 866
867 (1) there is new construction;
868
869 (2) there is material improvement, correction, or addition to the potable
870 plumbing system or the alternate water system; or
871
872 (3) the director believes that a cross-connection or other potential health or non-
873 health hazard exists.
874

875 (B) A customer service inspection shall be performed by:

- 876
877 (1) a plumbing inspector licensed by the Texas State Board of Plumbing
878 Examiners;
879
880 (2) a journeyman or master plumber licensed with the Texas State Board of
881 Plumbing Examiners with a water supply protection specialist endorsement;
882 or
883
884 (3) a customer service inspector licensed by the commission.
885

886 **§ 15-1-18 ALTERNATE METHOD OF COMPLIANCE.**

887
888 (A) A customer or any person desiring to use alternate methods of compliance to a
889 requirement of this chapter shall submit an application to the director on a form
890 provided for that purpose, including technical documentation to demonstrate the
891 equivalency of the proposed method, system, or device.
892

- 893 (B) The director shall have the authority to approve an alternate method, system, or
894 device for the intended purpose, if the director determines that the method, system,
895 or device will provide equivalent or superior effectiveness and safety over those
896 prescribed by this chapter.
897
- 898 (C) The director shall have the authority to require tests as proof of equivalency. Tests
899 shall be made in accordance with approved or applicable standards, by an approved
900 testing agency at the expense of the applicant. In the absence of such standards, the
901 director shall have the authority to specify the test procedure.
902
- 903 (D) The director shall have the authority to require tests to be made or repeated, at the
904 applicant's expense, if there is reason to believe that a method no longer meets the
905 equivalency the approval was based on.
906
- 907 (E) An alternate method approved under this section shall not be considered to be in
908 accordance with the requirements, intent, or both of this chapter for a purpose other
909 than that granted by the director.
910

911 **§ 15-1-19 ALTERNATE WATER SOURCES FOR NON-POTABLE**
912 **APPLICATIONS.**
913

- 914 (A) Registration required. Except as provided under Subsection (B), an alternate water
915 system must be registered with Austin Water by a customer or their authorized
916 representative. Registration shall be on a form approved by the director.
917 Registration includes:
918
- 919 (1) site address for the alternate water system;
 - 920 (2) storage capacity for the alternate water system;
 - 921 (3) type of alternate water system; and
 - 922 (4) intended use for the alternate water.
- 923
- 924 (B) A residential non-potable rainwater catchment or non-potable condensate
925 collection system that is 500 gallons or less and used for outdoor applications is
926 not required to be registered.
927
928
929
930

931 (C) Inspection and testing.

932 (1) Alternate water source systems shall be inspected and tested:

933 (a) for cross-connections in accordance with this chapter; and

934 (b) to determine compliance with provisions in the Plumbing Code
935 related to potable water piping.

936 (D) Cross Connection Inspection and Testing. Except as provided under subdivisions
937 (1) and (2), initial and subsequent inspections and tests shall be performed on both
938 the potable and alternate water source systems. The potable and alternate water
939 source system shall be isolated from each other and independently inspected and
940 tested to ensure there is no cross-connection in accordance with Section 15-1-
941 19(F). The following types of systems are not required to have cross-connection
942 testing:

943 (1) gravity type exterior non-potable condensate collection systems; and

944 (2) non-potable condensate collection systems with less than a 500-gallon
945 capacity and used for outdoor applications.

946 (E) Visual system inspection. Before commencing the cross-connection testing, a dual
947 system inspection shall be conducted by a licensed professional, registered with the
948 utility. A dual system inspection requires checking:

949 (1) meter locations of the alternate water source and potable water lines to
950 verify that no modifications were made and that no cross-connections are
951 visible;

952 (2) pumps and equipment, equipment room signs, and exposed piping in
953 equipment rooms;

954 (3) valves to ensure that the valve lock seals are still in place and intact; and

955 (4) valve control door signs to verify that no signs have been removed.
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- 968 (F) Cross Connection Test. To determine whether a cross-connection has occurred, a
969 licensed professional, registered with the utility, must follow the procedures
970 described in this section. These procedures shall be followed for all non-potable
971 alternate water sources requiring cross connection tests. The results of the test shall
972 be submitted on a form approved by the director.
- 973
- 974 (1) The potable water system shall be activated and pressurized; and the
975 alternate water source system shall be shut down, depressurized, and
976 drained.
- 977
- 978 (2) The potable water system shall remain pressurized for a minimum period
979 specified by the utility while the alternate water source is empty. The
980 minimum period the alternate water source system is to remain
981 depressurized shall be determined on a case-by-case basis, considering the
982 size and complexity of the potable and the alternate water source distribution
983 systems, but in no case shall be less than one hour.
- 984
- 985 (3) The drain on the alternate water source system shall be checked for flow
986 during the test, and fixtures, and potable and alternate water sources shall be
987 tested and inspected for flow. Flow from an alternate source system outlet
988 indicates a cross connection. No flow from a potable water outlet shall
989 indicate that it is connected to the alternate water source system.
- 990
- 991 (4) The potable water system shall then be depressurized and drained.
- 992
- 993 (5) The alternate water source system shall then be activated and pressurized.
- 994
- 995 (6) The alternate water source system shall remain pressurized for a minimum
996 period specified by the utility while the potable water system is empty. The
997 minimum period the potable water system is to remain depressurized shall
998 be determined on a case-by-case basis, but in no case shall that period be
999 less than one hour.
- 1000
- 1001 (7) Fixtures, potable, and alternate water source shall be tested and inspected for
1002 flow. Flow from a potable water system outlet indicates a cross connection.
1003 No flow from an alternate water source outlet will indicate that it is
1004 connected to the potable water system.
- 1005

- 1006 (8) The drain on the potable water system shall be checked for flow during and
1007 at the end of the test.
1008
- 1009 (9) If there is no flow detected in the fixtures which would indicate a cross
1010 connection, the potable water system shall be re-pressurized.
1011
- 1012 (G) Discovery of Cross Connection. If a cross connection is discovered, the following
1013 procedure, in the presence of the utility employee, shall be activated immediately:
1014
- 1015 (1) the alternate water source piping to the building shall be shut down at the
1016 meter or source, and the alternate water source system shall be drained;
1017
- 1018 (2) potable water piping to the building shall be shut down at the meter;
1019
- 1020 (3) the cross-connection shall be uncovered and disconnected;
1021
- 1022 (4) the building shall be retested in accordance with Section 15-1-19(F[E]);
1023
- 1024 (5) the potable water system shall be chlorinated with 50 parts-per-million
1025 (ppm) chlorine for 24 hours; and
1026
- 1027 (6) the potable water system shall be flushed after 24 hours, and a standard
1028 bacteriological test shall be performed. If test results are acceptable, the
1029 potable water system shall be permitted to be recharged.
1030
- 1031 (H) Alternate Cross Connection Test Methods. Alternate cross connection test
1032 procedures may be authorized by the utility. For an alternate method to be
1033 approved, an Austin Water Alternate Method of Compliance form shall be
1034 submitted before construction of an alternate water system begins.
1035
- 1036 (I) License Required. An alternate water system inspection and cross connection test
1037 shall be performed by:
1038
- 1039 (1) a plumbing inspector licensed by the Texas State Board of Plumbing
1040 Examiners;
1041

- 1042 (2) a journeyman or master plumber licensed with the Texas State Board of
1043 Plumbing Examiners with a water supply protection specialist endorsement;
1044 or
1045
1046 (3) a customer service inspector licensed by the commission.
1047
1048 (J) Reoccurring Inspection and Testing. Reoccurring inspections and cross-connection
1049 testing of the alternate water source system, consistent with Sections 15-1-19 (C),
1050 (D), (E), and (F), or approved alternate test, are required unless site conditions do
1051 not require it. Inspections and testing for black water sourced alternate water
1052 systems shall occur annually. Inspections and cross connection testing for all other
1053 alternate water systems for multi-family, industrial, institutional, or commercial
1054 sites shall occur once every four years. Cross-connection testing is required at any
1055 time the potable water system or alternate water system is altered or when required
1056 by the Utility. Test results shall be submitted on a form approved by the director.
1057
1058 (K) Connections to Potable Water. Alternate water source systems shall be permitted to
1059 have potable water makeup with the following requirements:
1060
1061 (1) Gray water systems shall have no direct connection to a potable water
1062 supply. Potable water is permitted to be used as makeup water for a non-
1063 pressurized storage tank provided the connection is protected by an air gap
1064 in accordance with this chapter. On-site treated non-potable water, and
1065 reclaimed water may be used as makeup water.
1066
1067 (2) Reclaimed water systems are prohibited from connecting to a potable water
1068 supply system. Potable water is permitted to be used as makeup water for a
1069 reclaimed water storage tank if the water supply inlet is protected by an air
1070 gap. An alternate water source may be used if adequate backflow protection
1071 is installed.
1072
1073 (3) Makeup water to other alternate systems requires an air gap or reduced
1074 pressure zone backflow preventer.
1075
1076 (L) Initial Inspection and Cross Connection Test for Reclaimed Water Sites. Before a
1077 building is occupied or the system is activated, an inspection, and cross-connection
1078 test that complies with Sections 15-1-19(C)-(F), or an approved alternate test, is

1079 required. Final approval cannot be granted until the test is deemed successful by
1080 the Utility. An annual inspection and cross-connection test shall occur.
1081

- 1082 (M) Initial Inspection and Cross Connection Test for On-site Water Reuse System
1083 Sites. Before a building is occupied or the system is activated, an inspection and
1084 cross-connection test that complies with Sections 15-1-19(C)-(F), or an approved
1085 alternate, is required. Final approval cannot be granted until the test is deemed
1086 successful by the Utility. An inspection and cross-connection test shall occur once
1087 every four years for multi-family, industrial, institutional, or commercial sites.
1088
- 1089 (N) Initial Inspection and Cross Connection Test for Other Alternate Water Systems.
1090 Before a building is occupied or the system is activated, an inspection and cross-
1091 connection test that complies with Sections 15-1-19(C)-(F), or an approved
1092 alternate, is required. Final approval cannot be granted until the test is deemed
1093 successful by the Utility. An inspection and cross-connection test shall occur once
1094 every four years for multi-family, industrial, institutional, or commercial sites.
1095
- 1096 (O) Initial Inspection and Cross Connection Test for Non-Potable Rainwater
1097 Catchment Sites. Except as provided in subdivision (1) and (2), before a building
1098 is occupied or the system is activated, a cross-connection test that complies with
1099 Sections 15-1-19 (C)-(F), or an approved alternate test, is required. Final approval
1100 cannot be granted until the test is deemed successful by the Utility. An inspection
1101 and cross-connection test shall occur once every four years. Test results shall be
1102 submitted on a form approved by the director.
1103
- 1104 (1) The following type of rainwater catchment systems are not required to have
1105 cross-connection testing: A non-potable rainwater catchment system of 500
1106 gallons or less and used for outdoor applications; or
1107
- 1108 (2) Gravity type exterior non-potable rainwater catchment systems.
1109
- 1110 (P) Hose Bibs. Hose bibs shall not be allowed on reclaimed water piping systems.
1111 Access to reclaimed water shall be through a quick-disconnect device that differs
1112 from those installed on the potable water system. Such outlets supplying reclaimed
1113 water shall be marked with the words: "CAUTION: NON-POTABLE
1114 RECLAIMED WATER, DO NOT DRINK" and the symbol below. Hose bibs on
1115 other alternate water systems shall be allowed and shall be marked with the words:

1116 "CAUTION: NON-POTABLE WATER, DO NOT DRINK" and the symbol
1117 below.
1118
1119



- 1120
1121
1122
1123 Q) Changes to Potable Water or Alternate Water Systems. On sites utilizing alternate
1124 water, no changes or connections to either the alternate water system or the potable
1125 water system shall be made without first obtaining approval from the director and
1126 any other authority having jurisdiction.
1127

1128 **§ 15-1-20 RAINWATER CATCHMENT SYSTEMS FOR POTABLE USE.**
1129

- 1130 (A) At each residence or facility where water from a rainwater catchment system is
1131 used for potable purposes and there is a connection to the City's public water
1132 system, the customer shall ensure that the rainwater catchment system is installed
1133 and maintained by a master plumber or journeyman plumber licensed by the Texas
1134 State Board of Plumbing Examiners who holds an endorsement issued by the
1135 Texas State Board of Plumbing Examiners as a water supply protection specialist.
1136
1137 (B) A person who intends to connect a rainwater catchment system to a public water
1138 system must give written notice of that intention to Austin Water.
1139
1140 (C) The public water system used as a back-up supply for the potable rainwater
1141 catchment system shall be connected only to the water storage tank and may not be
1142 connected to the plumbing of a structure. The connection to the tank shall be
1143 protected by a reduced pressure principle backflow assembly.

1144
1145 **ARTICLE 3. TESTER REGISTRATION.**
1146

1147 **§ 15-1-31 LICENSED TESTER.**
1148

- 1149 (A) A person shall register with the director before the person conducts a test or repair
1150 of a backflow prevention assembly or performs a customer service inspection or
1151 cross-connection test at a site connected to the City’s public water system. The
1152 registrant shall complete a form approved by the director.
1153
- 1154 (B) An applicant shall apply for registration as a licensed tester on a form approved by
1155 the director.
1156
- 1157 (1) The director shall determine whether an applicant is eligible for registration.
1158
- 1159 (2) An applicant is required to obtain a license from the state of Texas
1160 [commission] to be eligible as a tester.
1161
- 1162 (C) Once registered, a tester is responsible for:
1163
- 1164 (1) conducting themselves in a professional manner; in accordance with the
1165 applicable rules of the commission, the Texas State Board of Plumbing
1166 Examiners, and this chapter;
1167
- 1168 (2) compliance with the City’s rules and regulations;
1169
- 1170 (3) ensuring that original manufacturer replacement parts are used when
1171 replacing any part in a backflow prevention assembly;
1172
- 1173 (4) conducting testing and inspections only when assured that all safety
1174 procedures have been observed and that all necessary individuals involved
1175 have been appropriately notified;
1176
- 1177 (5) maintaining current contact and license information with Austin Water; and
1178
- 1179 (6) maintaining the confidentiality of the secured password into Austin Water’s
1180 electronic database.
1181

- 1182 (C) A registration remains in effect unless:
1183
1184 (1) the tester fails to maintain eligibility for registration; or
1185
1186 (2) the director revokes the registration.
1187
1188 (D) A tester must re-establish eligibility if the tester’s license is revoked.
1189

1190 **§ 15-1-32 PROOF OF EQUIPMENT.**
1191

- 1192 (A) A tester shall furnish evidence to show that they have the necessary tools and
1193 equipment to properly test and certify backflow prevention assemblies.
1194
1195 (B) A tester shall register each test gauge to be used by providing: the manufacturer,
1196 model number, serial number, and current accuracy certification of each test gauge
1197 on a form approved by the director.
1198
1199 (C) A tester shall, on or before the date established by the director, have gauges
1200 registered with the Utility tested for accuracy annually in accordance with the
1201 commission’s requirement and submit the results to the director. The tester shall
1202 list the registered serial numbers of test gauges on test and maintenance reports
1203 submitted to the director. Any failed gauges shall be re-calibrated to meet
1204 commission requirements. If a gauge cannot be re-calibrated, then the gauge shall
1205 be deactivated by Austin Water.
1206

1207 **§ 15-1-33 QUALITY CONTROL.**
1208

- 1209 (A) A tester must perform a competent and accurate certification of each backflow
1210 prevention assembly tested.
1211
1212 (B) A tester must leave a copy of the test and maintenance report with the customer
1213 and inform the customer if the backflow prevention assembly failed a test.
1214
1215 (C) The director may take the following quality control measures relating to a certified
1216 tester:
1217
1218 (1) retest a certified backflow prevention assembly;
1219

- 1220 (2) send written notice of test discrepancies to the tester who certified a
1221 backflow prevention assembly; and
1222
1223 (3) use other necessary investigative methods.
1224

1225 **§ 15-1-34 REVOCATION.**
1226

1227 (A) The director may revoke a tester’s registration for:
1228

- 1229 (1) failure to register the serial number of a gauge used to test backflow
1230 prevention assemblies;
1231
1232 (2) use of a gauge that does not have a current gauge accuracy certification to
1233 test backflow prevention assemblies;
1234
1235 (3) three testing or reporting discrepancies within a two-year period, beginning
1236 with the first discrepancy, including:
1237
1238 (a) false, incomplete, or inaccurate reporting of any test completion or
1239 certification of a backflow prevention assembly performed;
1240
1241 (b) use of inaccurate gauges;
1242
1243 (c) improper operational certification methods; or
1244
1245 (d) incomplete backflow test and maintenance reports;
1246
1247 (4) failure to maintain licensure with the commission as required by this
1248 chapter;
1249
1250 (5) conviction of a violation of this chapter; or
1251
1252 (6) failure to submit reports to the director within a three-year period.
1253

1254 **§ 15-1-35 DESIGN CHANGES.**
1255

1256 A tester may not change the design or operational characteristics of a backflow
1257 prevention assembly during installation, repair, or maintenance unless the director
1258 approves the change.
1259

1260 **§ 15-1-36 UTILITY PERSONNEL.**
1261

1262 A City employee who inspects, tests, or surveys a backflow prevention system
1263 under Section 15-1-16 (*Cross Connection Survey*), 15-1-33 (*Quality Control*), or 15-1-61
1264 (*Inspections*) must be licensed by the Texas State Board of Plumbing Examiners and be
1265 licensed by the commission as a backflow prevention assembly tester.
1266

1267 **ARTICLE 4. CONNECTION BY OTHER PUBLIC WATER SYSTEM.**
1268

1269 **§ 15-1-51 REQUIRED PREVENTION METHODS FOR A PUBLIC WATER**
1270 **SYSTEM WITH A PRE-EXISTING CONNECTION.**
1271

- 1272 (A) A public water system with a water service connection to the City’s public water
1273 system on January 12, 2004, shall:
1274
- 1275 (1) comply with the inspection requirements of 30 T.A.C. Section 290.44
1276 (Water Distribution);
1277
 - 1278 (2) adopt and enforce a plumbing code or service regulation no less stringent
1279 than a plumbing code approved for use in the state of Texas;
1280
 - 1281 (3) conduct inspections to ensure that its customers comply with the
1282 requirements of Subsections (A)(1) and (2); and
1283
 - 1284 (4) provide records of its cross connection or backflow prevention program and
1285 enforcement action to the director upon request;
1286
 - 1287 (5) install one or more gravity overflows at a receiving vessel or reservoir with a
1288 minimum capacity equal to or greater than the maximum possible fill rate at
1289 60 pounds per square inch at the base of the vessel or reservoir; or
1290
 - 1291 (6) install an air gap external to a tank or receiving vessel at a service
1292 connection.
1293

- 1294 (B) A public water system that purchases or obtains water from the City as a sole
1295 source through a connection to the City’s public water system made on or before
1296 January 12, 2004, may:
1297
1298 (1) comply with Subsections (A)(1) through (4);
1299
1300 (2) comply with Subsection (A)(5);
1301
1302 (3) comply with Subsection (A)(6); or
1303
1304 (4) install, test, and maintain a backflow prevention assembly at each service
1305 connection to the City’s public water system.
1306
1307 (C) A public water system that purchases or obtains water from the City through a
1308 connection to the City’s public water system made on or before January 12, 2004,
1309 and purchases or obtains water from an auxiliary water supply on or before January
1310 12, 2004, may:
1311
1312 (1) comply with Subsections (A)(1) through (4);
1313
1314 (2) comply with Subsection (A)(5);
1315
1316 (3) comply with Subsection (A)(6); or
1317
1318 (4) install, test, and maintain a reduced pressure backflow prevention
1319 assembly at each service connection to the City’s public water system.
1320
1321 (D) A public water system that fails to comply with this section by January 12, 2009,
1322 commits an offense.
1323

1324 **§ 15-1-52 CONSTRUCTION REQUIREMENTS FOR SOLE SOURCE**
1325 **PURCHASER.**
1326

1327 A public water system that purchases or obtains water from the City as a sole
1328 source through a connection made after January 12, 2004, shall, before using the
1329 connection:
1330

- 1331 (1) install, test, and maintain a backflow prevention assembly at each service
1332 connection to the City’s public water system;
1333
1334 (2) install one or more gravity overflows at a receiving vessel or reservoir with a
1335 minimum capacity equal to or greater than the maximum possible fill rate at
1336 60 pounds per square inch at the base of the vessel or reservoir; or
1337
1338 (3) install an air gap external to a tank or receiving vessel at a service
1339 connection.
1340

1341 **§ 15-1-53 CONSTRUCTION REQUIREMENTS FOR NON-SOLE SOURCE**
1342 **PURCHASER.**
1343

1344 A public water system that purchases or obtains water from the City through a
1345 connection made after January 12, 2004, and purchases or obtains water from another
1346 source shall, before using the connection:
1347

- 1348 (1) install, test, and maintain a reduced pressure backflow prevention assembly
1349 at each service connection to the City's public water system;
1350
1351 (2) install one or more gravity overflows at a receiving vessel or reservoir with a
1352 minimum capacity equal to or greater than the maximum possible fill rate at
1353 60 pounds per square inch at the base of the vessel or reservoir; or
1354
1355 (3) install a physical air gap external to a tank or receiving vessel at a service
1356 connection.
1357

1358 **§ 15-1-54 CERTIFICATION.**
1359

1360 (A) A public water system must obtain certification by a tester for each double check
1361 valve assembly and reduced pressure principle backflow prevention assembly
1362 installed as prescribed by Section 15-1-52 (*Construction Requirements For Sole*
1363 *Source Purchaser*) or Section 15-1-53 (*Construction Requirements For Non-Sole*
1364 *Source Purchaser*):
1365

- 1366 (1) on installation; and
1367
1368 (2) annually during use, on or before the date established by the director.

- 1369
1370 (B) A public water system must provide a copy of a certification issued under this
1371 section to the director not later than the fifth day after the certification is
1372 completed.
1373

1374 **ARTICLE 5. ENFORCEMENT.**

1375
1376 **§ 15-1-61 INSPECTIONS.**

1377 The director may inspect or require an inspection of property or facilities, real
1378 property, or buildings connected to the public water system. An inspection may include:
1379

- 1380
1381 (1) a survey of the property or facilities, real property, or buildings for cross
1382 connections;
1383
1384 (2) inspection of existing backflow prevention assembly installation; and
1385
1386 (3) annual testing and certification of assemblies by a licensed backflow
1387 prevention assembly tester, on or before the date established by the director.
1388

1389 **§ 15-1-62 RIGHT OF ENTRY.**

- 1390
1391 (A) The director may enter a customer's property or facility, including an easement or
1392 private property where a public or private potable water system is located, to gain
1393 access to a cross connection, backflow prevention assembly, or piping. The
1394 director's right of entry is a condition of a customer's water service or connection
1395 to the City's public water system.
1396
1397 (B) The director may inspect a customer's potable water system, piping, or the records
1398 required under this chapter or the rules of a public water system with which the
1399 City has an agreement for wholesale water service.
1400
1401 (C) A customer shall promptly remove, at the customer's sole expense, a security
1402 barrier or other obstacle to access by the director to the customer's property or
1403 facility.
1404
1405 (D) In connection with action by the director under this chapter, a customer with water
1406 service provided by the utility commits an offense if the person:

- 1407
1408 (1) denies the director right of entry;
1409
1410 (2) fails to remove a barrier or obstacle to access by the director; or
1411
1412 (3) unreasonably delays access by the director.
1413

1414 **§ 15-1-63 SEARCH WARRANT.**
1415

1416 (A) The director may apply to the municipal court or other court of competent
1417 jurisdiction for a search warrant if:

- 1418 (1) a customer denies the director access to a building, structure, property, or a
1419 public or private potable system connected to the City’s public water system;
1420 or
1421
1422 (2) the director has probable cause to believe there is:
1423
1424 (a) a violation of this chapter or other enforcement order;
1425
1426 (b) a need to conduct a cross connection inspection or cross connection
1427 survey; or
1428
1429 (c) a threat to public health or safety.
1430
1431

1432 (B) The director may inspect without a warrant to remedy an imminent danger to the
1433 public health and safety.
1434

1435 **§ 15-1-64 OFFENSES.**
1436

1437 A person commits an offense if the person:

- 1438 (1) commits or assists in the commission of a violation of this chapter;
1439
1440 (2) is the customer, owner, occupant, lessee, or manager of property or facilities
1441 that are the source of a violation of this chapter; or
1442
1443

- 1444 (3) obstructs or delays the director’s access to a customer’s property or
1445 facilities.
1446

1447 **§ 15-1-65 NOTICE OF VIOLATION.**
1448

- 1449 (A) The director may serve a written notice of violation on a person who has violated:
1450

- 1451 (1) the conditions of registration as a tester;
1452
1453 (2) a plumbing permit;
1454
1455 (3) installation requirements of a backflow prevention assembly or device; or
1456
1457 (4) a requirement of this chapter.
1458

- 1459 (B) The director may take any enforcement action without first issuing a notice of
1460 violation.
1461

- 1462 (C) A notice of violation issued under this chapter shall, at a minimum, contain:
1463

- 1464 (1) the name of the responsible person;
1465
1466 (2) the address of the alleged violation; and
1467
1468 (3) a description of the alleged violation.
1469

1470 **§ 15-1-66 CRIMINAL PENALTY.**
1471

- 1472 (A) A person violating this chapter commits a Class C misdemeanor, punishable in
1473 accordance with Section 1-1-99 (*Offenses; General Penalty*) of the Code by a fine
1474 not to exceed \$2,000. Each occurrence of a violation of this chapter is a separate
1475 offense.
1476
1477 (B) Proof of a culpable mental state is not required and need not be proved, for fines of
1478 \$500 or less.
1479

1480 **§ 15-1-67 CIVIL REMEDIES.**
1481

- 1482 (A) The city attorney may enforce this chapter by injunction, declaratory relief, or
1483 other action at law or in equity.
1484
1485 (B) The city attorney may initiate a suit against the owner, occupant, tenant, manager,
1486 or water customer of property or facility that is the source of a violation of this
1487 chapter, to recover a civil penalty not to exceed \$5,000 for each violation. Each
1488 day that a violation continues constitutes a separate violation.
1489

1490 **§ 15-1-68 LIABILITY.**
1491

- 1492 (A) A person or public water system may be held liable for a violation of this chapter if
1493 the person:
1494
1495 (1) commits or assists in the commission of a violation;
1496
1497 (2) is an authorized representative under this chapter; or
1498
1499 (3) is the owner, occupant, tenant, manager, or water customer of premises,
1500 property or a facility that is the source of pollution or contamination of the
1501 potable or reclaimed water system in violation of this chapter.
1502
1503 (B) A person who violates this chapter is liable to the City for expenses, loss, or
1504 damage incurred by the City.
1505

1506 **§ 15-1-69 TERMINATION OF SERVICE.**
1507

- 1508 (A) The director may terminate water or wastewater service in accordance with this
1509 section.
1510
1511 (B) The director may terminate water or wastewater service if the customer, owner,
1512 tenant, lessee, or water customer does not correct a violation within five days after
1513 the person becomes aware of the violation.
1514
1515 (C) The director may refuse or terminate water or wastewater service if a backflow
1516 prevention assembly is not installed, certified for operation, repaired, or replaced
1517 as required by this chapter.
1518

- 1519 (D) The director may terminate water or wastewater service if a customer fails to
1520 terminate a connection between a potable water system and a reclaimed or
1521 alternate water system.
1522
- 1523 (E) The director may terminate water or wastewater service to a customer who does
1524 not pay a billing by the due date.
1525

1526 **§ 15-1-70 EMERGENCY SUSPENSION.**
1527

- 1528 (A) On receipt of informal written or verbal notice, the director may suspend water
1529 service and disconnect a private or public water system from the City's public
1530 water system without a hearing if the director determines that contamination or
1531 pollution due to a cross connection:
1532
- 1533 (1) presents an imminent threat to the City's public water system;
 - 1534 (2) presents an imminent danger to public health or safety;
 - 1535 (3) presents a threat to the environment; or
 - 1536 (4) threatens to interfere with the operation of the City's public water system.
- 1537
- 1538 (B) A person notified of the suspension of the person's service shall immediately stop
1539 use of the City's public water system water and the director shall disconnect the
1540 City's public water system from the person's private or public water system.
1541
- 1542 (C) If a person fails to immediately comply with an emergency suspension order, the
1543 director may take action the director determines is necessary to prevent
1544 contamination or pollution, or to minimize damage to the City's public water
1545 system, the public, property, or the environment.
1546
- 1547 (D) The director may take action under this section even if termination proceedings
1548 have been initiated under Section 15-1-69 (*Termination of Service*).
1549
- 1550 (E) A suspension under this section is not affected by evidence that the danger caused
1551 by the contamination or pollution due to a cross connection has ceased.
1552

1553 **§ 15-1-71 CUMULATIVE REMEDIES.**
1554
1555
1556

1557
1558 The remedies authorized under this chapter are cumulative unless specifically
1559 prohibited by state or federal law.
1560

1561 **§ 15-1-72 VOLUNTARY COMPLIANCE.**
1562

- 1563 (A) The director may accept from a person responsible for a violation under this
1564 chapter a written agreement for voluntary compliance, or issue a consent order that
1565 establishes an agreement for voluntary compliance.
1566
- 1567 (B) An agreement under this section must:
- 1568 (1) describe the violation;
 - 1569 (2) describe the specific action the person must take to correct the violation;
 - 1570 (3) specify the time period for the person to complete the corrective action;
 - 1571 (4) be signed and dated by the person responsible for compliance; and
 - 1572 (5) be judicially enforceable.
- 1573 (C) The director may take action to enforce compliance with an agreement under this
1574 section.
1575
1576
1577
1578
1579
1580
1581

1582 **§ 15-1-73 SHOW CAUSE HEARING.**
1583

- 1584 (A) The director may order a person responsible for a violation of this chapter or an
1585 enforcement order to appear before the director and show cause why a proposed
1586 enforcement action should not be taken.
1587
- 1588 (B) The director shall serve notice to a person under this section including:
- 1589 (1) the time and place for a hearing;
 - 1590 (2) the nature of the violation;
 - 1591 (3) the proposed enforcement action;
- 1592
1593
1594

- 1595
1596 (4) the reasons for the enforcement action; and
1597
1598 (5) a request that the person show cause why the proposed enforcement action
1599 should not be taken.
1600
1601 (C) The director shall serve notice under this section in person or by certified mail,
1602 return receipt requested, no later than the third day before the hearing. Notice may
1603 be served on an employee, agent or other authorized representative of a person
1604 responsible for a violation.
1605
1606 (D) The director may take immediate enforcement action following a noticed show
1607 cause hearing.
1608

1609 **§ 15-1-74 COMPLIANCE ORDER.**

- 1610
1611 (A) If the director determines that a person has violated this chapter or an enforcement
1612 order, the director may issue an order to the person directing the person to correct
1613 the violation within a specified period.
1614
1615 (B) If a person does not comply within the period provided, the director may
1616 disconnect water or wastewater service to the non-compliant premises until the
1617 person installs an operational facility, device, or equipment to correct the violation.
1618

1619 **§ 15-1-75 CEASE AND DESIST ORDER.**

- 1620
1621 (A) If the director determines that a person is violating this chapter or an enforcement
1622 order, or that a past violation committed by the person is likely to recur, the
1623 director may issue an order directing the person to:
1624
1625 (1) immediately cease and desist the violation;
1626
1627 (2) immediately comply with this chapter or an enforcement order; and
1628
1629 (3) take necessary remedial or preventive action to address a present,
1630 continuing, or threatened violation, including halting operation.
1631
1632

