

1 CHAPTER 62-550

2 DRINKING WATER STANDARDS, MONITORING, AND REPORTING

3 62-550.200 Definitions for Public Water Systems.

4 For the purpose of this chapter and Chapters 62-555 and 62-560, F.A.C., the following words, phrases, or terms shall
5 have the following meaning:

6 (1) through (21) No change.

7 (22) “CROSS-CONNECTION” means a connection that is made between any part of a public water system
8 (PWS) or customer’s potable water system and any other environment containing foreign substances and that, under
9 any circumstances, would allow such foreign substances to enter the PWS or customer’s potable water system any
10 physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply
11 system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may
12 contain contaminated water, sewage or other waste, or liquid of unknown or unsafe quality which may be capable of
13 imparting contamination to the public water supply as the result of backflow. Foreign substances are any substances
14 other than the potable water being supplied by the PWS or by another interconnected PWS of the same type (types
15 of PWS are community, non-transient non-community, or transient non-community) and include gases, liquids, and
16 solids, such as steam, water from other sources (potable or nonpotable), used water that has passed beyond the
17 PWS’s control at the point of delivery and has been used in a way that might contaminate it, chemicals, and any
18 matter that might change the color or taste of water or add odor to water. Bypass ~~By-pass~~ arrangements, jumper
19 connections, removable sections, swivel or changeover assemblies, changeable devices, and other temporary or
20 permanent connecting arrangements devices through which ~~or because of which~~ backflow could occur are
21 considered ~~to be~~ cross-connections.

22 (23) through (105) No change.

23 Rulemaking Specific Authority 403.861(9) FS. Law Implemented 403.853, 403.854, 403.8615, 403.862 FS. History—New 11-9-
24 77, Amended 1-13-81, 11-19-87, Formerly 17-22.103, Amended 1-18-89, 5-7-90, 1-3-91, 1-1-93, Formerly 17-550.200,
25 Amended 9-7-94, 12-9-96, 9-22-99, 8-1-00, 11-27-01, 4-3-03, 11-25-03, 10-14-04, 11-28-04, 1-17-05, _____.

26 62-550.720 Recordkeeping.

27 Suppliers of water shall retain on their premises, or at a convenient location near their premises, the following
28 records:

1 (1) through (2) No change.

2 (3) Copies of any written reports, summaries, or communications relating to ~~cross-connection control program~~
3 ~~or~~ sanitary surveys of the system conducted by the system itself, by a private consultant, or by any local, State, or
4 Federal agency, shall be kept for a period not less than 10 years after completion of the sanitary survey.

5 (4) through (6) No change.

6 (7) Written backflow incident reports and records documenting proper testing and repair, or overhaul or
7 replacement, of mechanical backflow preventers at or within public water system source, treatment, storage, or
8 distribution facilities shall be kept for at least five years. Also, community water systems shall keep annual cross-
9 connection control program activities reports for at least 5 years and shall keep cross-connection control program
10 records in accordance with subparagraph 62-555.360(5)(a)5., F.A.C.

11 Rulemaking Specific Authority 403.861(9) FS. Law Implemented 403.861(16) FS. History—New 11-19-87, Formerly 17-
12 22.820, Amended 1-18-89, 1-1-93, 7-4-93, Formerly 17-550.720, Amended 11-27-01, 11-28-04, _____.

13 62-550.730 Reporting Requirements for Public Water Systems.

14 Suppliers of water and DOH-certified laboratories shall report as follows:

15 (1) Suppliers of Water.

16 (a) through (h) No change.

17 (i) The supplier of water shall report backflow incidents in accordance with subsection 62-555.360(8), F.A.C.

18 Also, community water systems shall submit annual cross-connection control program activities reports in
19 accordance with paragraph 62-555.360(5)(d), F.A.C.

20 (i) renumbered (j) No change.

21 (2) through (4) No change.

22 Rulemaking Specific Authority 403.853(3), 403.861(9) FS. Law Implemented 403.852(12), (13), 403.853(3), 403.861(16), (17)
23 FS. History—New 11-19-87, Formerly 17-22.830, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-550.730, Amended 9-7-94, 2-
24 7-95, 12-9-96, 8-1-00, 11-27-01, 4-3-03, 11-28-04, 1-17-05, _____.

1 CHAPTER 62-555

2 PERMITTING, CONSTRUCTION, OPERATION, AND MAINTENANCE OF PUBLIC WATER SYSTEMS

3 62-555.330 Engineering References for Public Water Systems.

4 In addition to the requirements of this chapter, the requirements and standards contained in the following technical
5 publications are hereby incorporated by reference and shall be applied in determining whether permits to construct
6 or alter public water system components, excluding wells (but including well pumping equipment and
7 appurtenances), shall be issued or denied. Each of these publications is available from the publisher or source listed
8 for the publication. The specific requirements contained in this chapter supersede the requirements and standards
9 contained in these publications. Where there are conflicts between these publications, suppliers of water and
10 construction permit applicants shall comply with any one of the publications. Where there are multiple options or
11 alternatives in these publications, suppliers of water and construction permit applicants shall comply with any one of
12 the options or alternatives. The Department shall allow exceptions to the requirements and standards in these
13 publications if suppliers of water or construction permit applicants provide justification for each exception and
14 provide alternative design and construction features that achieve the same purpose and that afford a similar level of
15 strength, durability, reliability, and public health protection.

16 (1) through (5) No change.

17 (6) *Recommended Practice for Backflow Prevention and Cross-Connection Control*, AWWA Manual M14,
18 ~~Third Second~~ Edition, 2004, 1990, American Water Works Association (AWWA). Published by the AWWA, 6666
19 W. Quincy Avenue, Denver, CO 80235.

20 (7) through (8) No change.

21 ~~Rulemaking Specific~~ Authority 403.861(9) FS. Law Implemented 403.861(7) FS. History—New 11-19-87, Formerly 17-22.630,
22 Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.330, Amended 9-22-99, 8-28-03, _____.

23 62-555.360 Cross-Connection Control for Public Water Systems.

24 (1) For the purpose of this Section 62-555.360, F.A.C., the following words, phrases, or terms shall have the
25 following meaning:

26 (a) Air gap (AG) means an unobstructed vertical distance through open atmosphere between the lowest
27 opening from any pipe supplying water to a tank and the flood-level rim of the tank. This vertical distance must be
28 at least twice the inside diameter of the water supply pipe or one inch, whichever is greater.

1 (b) Auxiliary water supply means any water supply on, or available to, a premises other than the public water
2 system. Such water supplies include natural water sources such as wells, ponds, lakes, springs, streams, rivers, etc.,
3 and include used water that has passed beyond the public water system’s control at the point of delivery and has
4 been used in a way that might contaminate it. Used water supplies are discussed further in Chapter 5 of AWWA
5 Manual M14 as incorporated into Rule 62-555.330, F.A.C.

6 (c) Auxiliary water system means a system of piping and appurtenances that conveys and utilizes water from
7 an auxiliary water supply but specifically excludes a water recirculation/treatment system for swimming pools, hot
8 tubs, or spas at residential premises.

9 (d) Backflow means the reversal of flow of water in a public water system (PWS) or customer’s potable water
10 system in such a way that foreign substances enter the PWS or customer’s potable water system through a cross-
11 connection.

12 (e) Backflow incident means an event where contaminants or foreign substances are found within a public
13 water system or customer’s potable water system and the occurrence of the contaminants or foreign substances is
14 known, or reasonably suspected, to have been caused by backflow.

15 (f) Backflow preventer means a method (i.e., air gap), or a mechanical assembly or device, that prevents
16 backflow. An assembly has test cocks and shutoff valves that are used for field testing or repairing the backflow
17 preventer while it is installed in-line. A device usually cannot be field tested or repaired while it is installed in-line.

18 (g) Commercial premises means premises where there is a multifamily apartment building or condominium or
19 a business enterprise.

20 (h) Cross-connection shall have the same meaning as listed in Rule 62-550.200, F.A.C.

21 (i) Fire protection system means a system that is designed individually to protect the interior or exterior of a
22 specific building, structure, or other special hazard from fire and that uses water from a public water system as an
23 extinguishing agent. Such a system could be connected directly to a public water system’s distribution system via a
24 “dedicated fire service connection” or could be connected internally to the potable water system of a customer of a
25 public water system. Fire protection systems include the following: sprinkler systems (wet-pipe systems, deluge
26 systems, dry-pipe systems, and preaction systems), spray systems, standpipe systems (wet standpipe systems and dry
27 standpipe systems), and combinations of the aforementioned systems, some of which are discussed further in
28 Chapter 5 of AWWA Manual M14 as incorporated into Rule 62-555.330, F.A.C. Fire protection systems also

1 include any connected mains and appurtenances (including backflow preventers), hydrants, tanks, or pumps that are
2 located downstream of the point-of-service for the system. Note that Chapter 633, F.S., defines the point-of-service
3 for fire protection systems, excluding standpipe systems unless they are connected to a sprinkler system, as the point
4 at which the underground piping for the fire protection system becomes used exclusively for the fire protection
5 system. Also note that a system that is designed to protect premises from fire and that uses water from an auxiliary
6 water supply or uses reclaimed water is considered an auxiliary water system or a reclaimed water system,
7 respectively.

8 (j) Foreign substances are any substances other than the potable water being supplied by the public water
9 system (PWS) or by another interconnected PWS of the same type as discussed under paragraph (p) below and
10 include gases, liquids, and solids, such as steam, water from other sources (potable or nonpotable), used water that
11 has passed beyond the PWS's control at the point of delivery and has been used in a way that might contaminate it,
12 chemicals, or any matter that might change the color or taste of water or add odor to water.

13 (k) High hazard means an actual or potential cross-connection involving any foreign substance that, if
14 introduced into a potable water system, could cause death or illness, spread disease, or have a high probability of
15 causing such effects.

16 (l) Industrial premises means premises where there is a manufacturing or processing establishment.

17 (m) Irrigation system means a system of in-ground piping and appurtenances that is used to apply water from a
18 public water system to landscaping or agricultural crops at commercial, industrial, or residential premises. Such a
19 system could be connected directly to a public water system's distribution system via a "dedicated irrigation service
20 connection" or could be connected internally to the potable water system of a customer of a public water system.
21 Note that a system of piping and appurtenances that is used to apply water from an auxiliary water supply, or
22 reclaimed water, to landscaping or agricultural crops is considered an auxiliary water system or a reclaimed water
23 system, respectively.

24 (n) Low hazard means an actual or potential cross-connection involving any foreign substance that, if
25 introduced into a potable water system, generally would not be a health hazard but could constitute a nuisance or be
26 aesthetically objectionable.

27 (o) Multistoried building means a building having more than four stories.

28 (p) Public water system (PWS) shall have the meaning as listed in Rule 62-550.200, F.A.C. There are three

1 types of PWS—community water system, non-transient non-community water system, and transient non-community
2 water system, all of which are defined in Rule 62-550.200, F.A.C.

3 (q) Reclaimed water system means a system of piping and appurtenances that conveys and utilizes reclaimed
4 water supplied by a reuse system regulated under Part II, III, or VII of Chapter 62-610, F.A.C.

5 (r) Residential premises means premises where there is a one- or two-family dwelling unit.

6 (2) Public water systems shall begin, or continue, to comply with subsections (3), (4), (6), (7), and (8) below
7 effective [insert the effective date of these rule amendments]. Community water systems shall comply with
8 subsection (5) below by the dates specified in or under paragraphs 62-555.360(5)(a), (c), and (d), F.A.C.

9 (3) ~~(4)~~ Cross-connections, as defined in Rule 62-550.200, F.A.C., are prohibited except where an
10 appropriate type of backflow preventer is installed to prevent backflow through the cross-connection and into the
11 public water system. Appropriate types of backflow preventers for various applications are described in AWWA
12 Manual M14 as incorporated into Rule 62-555.330, F.A.C., and modified and clarified under subparagraph 62-
13 555.360(5)(a)2., F.A.C. ~~A However, a person who owns or manages a public water system (PWS) may interconnect~~
14 to another PWS of the same type as discussed in paragraph 62-555.360(1)(p), F.A.C., without installing a backflow
15 preventer public water system if that system is operated and maintained in accordance with this chapter.

16 (4) Public water systems (PWSs) shall protect against backflow at or within their own source, treatment,
17 storage, and distribution facilities by complying with the recommendations on pages 80 through 84 of AWWA
18 Manual M14 as incorporated into Rule 62-555.330, F.A.C. This includes using a temporary connection with a
19 reduced-pressure principle assembly when filling new 12-inch-diameter or smaller water mains with water for
20 pressure and leakage testing, disinfection, or flushing. (The use of such temporary connections also is discussed in
21 Section 4.3.9 of AWWA Standard C651 as incorporated into Rule 62-555.330, F.A.C.) PWSs shall ensure that all
22 mechanical backflow preventers necessary to comply with the recommendations on pages 80 through 84 of AWWA
23 Manual M14 are in-line field tested and repaired, or overhauled or replaced, as follows: in-line field testable
24 backflow preventers (i.e., reduced-pressure principle assemblies, pressure vacuum breaker assemblies, and double
25 check valve assemblies) shall be in-line field tested immediately after installation or repair and at least annually
26 thereafter, and they shall be repaired if they fail a test; and backflow preventers that are not in-line field testable (i.e.,
27 atmospheric vacuum breakers, including hose bibb vacuum breakers) shall be overhauled (i.e., equipped with new
28 springs and valve seats) or replaced at least once every five years. Records documenting the aforementioned testing

1 and repair, or overhaul or replacement, of mechanical backflow preventers shall be kept by PWSs for at least five
2 years in accordance with subsection 62-550.720(7), F.A.C.

3 ~~(5) (2) Community water systems; (CWSs) and all public water systems that have service areas also served by~~
4 ~~reclaimed water systems regulated under Part III of Chapter 62-610, F.A.C., shall establish and implement a written~~
5 ~~routine cross-connection control program to detect and control cross-connections and prevent backflow of~~
6 ~~contaminants or foreign substances through cross-connections and into the CWS water system. This program shall~~
7 ~~include a written plan that is developed using recommended practices of the American Water Works Association set~~
8 ~~forth in *Recommended Practice for Backflow Prevention and Cross-Connection Control*, AWWA Manual M14, as~~
9 ~~incorporated into Rule 62-555.330, F.A.C.~~

10 (a) By no later than January 1, 2015, written cross-connection control programs required under subsection 62-
11 555.360(5), F.A.C., shall include the seven elements describe in subparagraphs 1. through 7. below.

12 1. Written cross-connection control programs shall include legal authority for the program. The legal
13 authority shall be an ordinance for government-owned CWSs and shall be approved rules and regulations or service
14 contracts, or a resolution, for investor-owned CWSs. The legal authority shall reference or include the elements
15 described in subparagraphs 2 and 3 below.

16 2. Written cross-connection control programs shall include a policy establishing where backflow protection at
17 water service connections is mandatory because of actual or potential cross-connections. The policy shall specify
18 categories of customer premises and systems for which a backflow preventer shall be installed at the service
19 connection to the premises or system and shall specify the appropriate type(s) of backflow preventer(s) for each such
20 category of customer premises or systems. The policy shall be developed using, and shall be at least as stringent as,
21 the recommendations on page 13, and pages 63 through 80, of AWWA Manual M14 as incorporated into Rule 62-
22 555.330, F.A.C., with the following exceptions, modifications, and clarifications:

23 a. Auxiliary or Reclaimed Water Systems.

24 (I) CWSs shall ensure that an appropriate type of backflow preventer as listed in Table 1 below is installed at
25 service connections to commercial, industrial, or residential premises where there is an auxiliary or reclaimed water
26 system, regardless of whether there is a known cross-connection between the customer's auxiliary or reclaimed
27 water system and the customer's potable water system, and shall ensure that other appropriate backflow protection
28 measures listed in Table 2 below are taken as necessary to comply with Table 1.

| <u>TABLE 1</u> | | |
|---|--|---|
| <u>TYPE OF AUXILIARY OR RECLAIMED WATER SYSTEM AT PREMISES</u> | <u>TYPE OF BACKFLOW PREVENTER¹ REQUIRED AT SERVICE CONNECTION TO PREMISES</u> | |
| | <u>COMMERCIAL OR INDUSTRIAL PREMISES</u> | <u>RESIDENTIAL PREMISES</u> |
| <u>Auxiliary water system that is used for irrigation</u> | <ul style="list-style-type: none"> • <u>AG</u>; or • <u>RP</u> | <ul style="list-style-type: none"> • <u>AG</u>; or • <u>RP</u>; or • <u>DC</u>, or <u>DuC</u>, plus any one of the additional backflow protection measures described in <u>Table 2 below²</u> |
| <u>Auxiliary water system that is used for purposes other than irrigation</u> | <ul style="list-style-type: none"> • <u>If the CWS determines that the auxiliary water system constitutes a high hazard:</u> <ul style="list-style-type: none"> ○ <u>AG</u>; or ○ <u>RP</u> • <u>If the CWS determines that the auxiliary water system constitutes a low hazard:</u> <ul style="list-style-type: none"> ○ <u>AG</u>; or ○ <u>RP</u>; or ○ <u>DC</u> | <ul style="list-style-type: none"> • <u>If the CWS determines that the auxiliary water system constitutes a high hazard:</u> <ul style="list-style-type: none"> ○ <u>AG</u>; or ○ <u>RP</u>; or ○ <u>DC</u>, or <u>DuC</u>, plus any one of the additional backflow protection measures described in <u>Table 2 below²</u> • <u>If the CWS determines that the auxiliary water system constitutes a low hazard:</u> <ul style="list-style-type: none"> ○ <u>AG</u>; or ○ <u>RP</u>; or ○ <u>DC</u> or <u>DuC</u> |
| <u>Reclaimed water system</u> | <ul style="list-style-type: none"> • <u>AG</u>; or • <u>RP</u> | <ul style="list-style-type: none"> • <u>AG</u>; or • <u>RP</u>; or • <u>DC</u>, or <u>DuC</u>, plus any one of the additional backflow protection measures described in <u>Table 2 below²</u> |

¹ AG = air gap; RP = reduced-pressure principle assembly; DC = double check valve assembly; and DuC = dual check device.

² Upon discovery of any cross-connection between the customer's potable water system and the customer's auxiliary or reclaimed water system, the CWS either shall ensure that the cross-connection is eliminated; shall ensure that the backflow preventer at the service connection is upgraded to the type required for a commercial or industrial premises; or shall discontinue service until the cross-connection is eliminated or the backflow preventer at the service connection is upgraded.

TABLE 2

ADDITIONAL BACKFLOW PROTECTION MEASURES FOR USE AT
CERTAIN RESIDENTIAL PREMISES AS SPECIFIED IN TABLE 1 ABOVE

Premises Inspections

Under this additional backflow protection measure, the CWS shall ensure that the customer premises is inspected for cross-connections between the customer's potable water system and the customer's auxiliary or reclaimed water system. Such an inspection shall be conducted at the time a backflow preventer is initially installed and at least every five years thereafter by appropriately trained CWS staff or contractors or by a licensed plumbing contractor. The CWS shall develop an inspection protocol and an inspection form to be completed and signed by the inspector, and the CWS shall keep in its records a copy of the latest completed and signed inspection form for the customer premises. Upon discovery of any cross-connection, the CWS shall do one of the following: (1) ensure that the cross-connection is eliminated; (2) ensure that the backflow preventer at the service connection is upgraded to the type required for a commercial or industrial premises; or (3) discontinue service until the cross-connection is eliminated or the backflow preventer at the service connection is upgraded.

Automatic Meter Reading (AMR)

Under this additional backflow protection measure, the CWS shall utilize AMR at the service connection. Such AMR shall have the ability to detect reversal of flow through the service connection and either provide immediate notification of the flow reversal event or record the flow reversal data for transmittal or retrieval on at least a monthly basis. If flow reversal is detected, the CWS shall ensure that the customer premises is inspected in accordance with "Premises Inspections" above, except the inspection shall be on a onetime basis. Upon discovery of any cross-connection, the CWS shall do one of the following: (1) ensure that the cross-connection is eliminated; (2) ensure that the backflow preventer at the service connection is upgraded to the type required for a commercial or industrial premises; or (3) discontinue service until the cross-connection is eliminated or the backflow preventer at the service connection is upgraded. Also, if flow reversal is detected and if the backflow preventer at the service connection is not upgraded, the CWS shall ensure that the backflow preventer at the service connection is in-line field tested or is overhauled or replaced.

Customer Agreement

Under this additional backflow protection measure, the CWS shall ensure that the customer signs an agreement and shall keep in its records a copy of the signed agreement. Such an agreement shall prohibit the customer from creating any cross-connection between the customer's potable water system and the customer's auxiliary or reclaimed water system; shall discuss the potential health implications associated with such a cross-connection; and shall stipulate penalties if any such cross-connection is discovered at the customer premises. Upon discovery of any cross-connection, the CWS shall do one of the following: (1) ensure that the cross-connection is eliminated; (2) ensure that the backflow preventer at the service connection is upgraded to the type required for a commercial or industrial premises; or (3) discontinue service until the cross-connection is eliminated or the backflow preventer at the service connection is upgraded. Also, upon discovery of any cross-connection, the CWS may choose to levy fines.

Managed Premises

Under this additional backflow protection measure, the CWS shall ensure that the customer premises is under the jurisdictional control of a third party, such as a homeowners association, with established restrictions regarding the use and modification of the premises. Such restrictions shall prohibit the customer from altering or tampering with the customer's potable water system and the customer's auxiliary or reclaimed water system. The CWS shall keep in its records a copy of the third-party's legal instrument establishing such restrictions. Upon discovery of any cross-connection at such a premises, the CWS shall do one of the following: (1) ensure that the cross-connection is eliminated; (2) ensure that the backflow preventer at the service connection is upgraded to the type required for a commercial or industrial premises; or (3) discontinue service until the cross-connection is eliminated or the backflow preventer at the service connection is upgraded.

1 (II) CWSs need not, but may, ensure that a backflow preventer is installed at service connections to premises

2 where there is an undeveloped auxiliary water supply (i.e., an auxiliary water supply but no auxiliary water system).

3 b. Fire Protection Systems.

4 (I) At commercial, industrial, or residential premises where there is a fire protection system that is connected

1 directly to the CWS distribution system via a “dedicated fire service connection” and that is a wet-pipe sprinkler, or
 2 wet standpipe, system or has provisions for introducing chemical additives or antifreeze into the system, CWSs shall
 3 ensure that an appropriate type of backflow preventer as listed in the table below is installed at the “dedicated fire
 4 service connection.”

| <u>TYPE OF FIRE PROTECTION SYSTEM</u> | <u>TYPE OF BACKFLOW PREVENTER¹ REQUIRED AT “DEDICATED FIRE SERVICE CONNECTION”</u> |
|--|--|
| <u>Fire protection system that has provisions for introducing chemical additives or antifreeze into the system</u> | <ul style="list-style-type: none"> • <u>AG; or</u> • <u>RP or RPDA</u> |
| <u>New wet-pipe sprinkler system, or new wet standpipe system, that has no provisions for introducing chemical additives or antifreeze into the system</u> | <ul style="list-style-type: none"> • <u>AG; or</u> • <u>RP or RPDA; or</u> • <u>DC, DCDA, or DuC²</u> |
| <u>Existing wet-pipe sprinkler system, or existing wet standpipe system, that has no provisions for introducing chemical additives or antifreeze into the system</u> | <ul style="list-style-type: none"> • <u>AG; or</u> • <u>RP or RPDA; or</u> • <u>DC, DCDA, or DuC²; or</u> • <u>No backflow preventer if the sprinkler or standpipe system is provided with an alarm check valve</u> |

¹ AG = air gap; RP = reduced-pressure principle assembly; RPDA = reduced-pressure principle detector assembly; DC = double check valve assembly; and DCDA = double check detector assembly.

² A DuC may be used only at “dedicated fire service connections” to residential premises.

5 (II) At commercial, industrial, or residential premises where there is a fire protection system that is connected
 6 internally to the customer’s potable water system and that is a closed (i.e., non-flow-through) wet-pipe sprinkler, or
 7 closed wet standpipe, system or has provisions for introducing chemical additives or antifreeze into the system,
 8 CWSs shall do one of the following:

9 (A) Rely on any internal backflow preventer required by the *Florida Building Code*, or the predecessor State or
 10 local plumbing code, at the location where the fire protection system connects to the customer’s potable water
 11 system. In this case, the CWS is strongly encouraged, but not required, to ensure that the internal backflow preventer
 12 is tested and repaired, or is overhauled or replaced, the same as backflow preventers at service connections.

13 (B) Ensure that an appropriate type of backflow preventer as specified in sub-sub-subparagraph 62-
 14 555.360(5)(a)2.b.(I), F.A.C., is installed at the potable water service connection to the premises.

15 (III) CWSs need not, but may, ensure that a backflow preventer is installed at “dedicated fire service
 16 connections” to, or at service connections to premises with, the following types of fire protection systems:

17 (A) Flow-through wet-pipe sprinkler systems, and flow-through wet standpipe systems, that are constructed of
 18 materials suitable for potable water systems and that have no provisions for introducing chemical additives or
 19 antifreeze into the system.

20 (B) Deluge sprinkler systems and water spray systems, and dry-pipe or preaction sprinkler systems and dry

standpipe systems, that have no provisions for introducing chemical additives into the system.

c. Irrigation Systems.

(I) At commercial, industrial, or residential premises where there is an irrigation system connected directly to the CWS distribution system via a “dedicated irrigation service connection,” CWSs shall ensure that an appropriate type of backflow preventer as listed in the table below is installed at the “dedicated irrigation service connection.”

| <u>TYPE OF IRRIGATION SYSTEM</u> | <u>TYPE OF BACKFLOW PREVENTER¹ REQUIRED AT “DEDICATED IRRIGATION SERVICE CONNECTION”</u> |
|---|--|
| <u>Irrigation system that has provisions for introducing chemicals into the system</u> | <ul style="list-style-type: none"> • <u>AG; or</u> • <u>RP</u> |
| <u>Irrigation system that has no provisions for introducing chemicals into the system</u> | <ul style="list-style-type: none"> • <u>AG; or</u> • <u>RP; or</u> • <u>PVB</u> |

¹AG = air gap; RP = reduced-pressure principle assembly; and PVB = pressure vacuum breaker.

(II) At commercial, industrial, or residential premises where there is an irrigation system connected internally to the customer’s potable water system, CWSs shall do one of the following:

(A) Rely on any internal backflow preventer required by the Florida Building Code, or the predecessor State or local plumbing code, at the location where the irrigation system connects to the customer’s potable water system. In this case, the CWS is strongly encouraged, but not required, to ensure that the internal backflow preventer is tested and repaired, or is overhauled or replaced, the same as backflow preventers at service connections.

(B) Ensure that an air gap or reduced-pressure principle assembly is installed at the potable water service connection to the premises.

d. Residential Water Services. A backflow preventer generally is not required at service connections to residential premises where there is no auxiliary or reclaimed water system, no fire protection system, no irrigation system, and no solar domestic hot-water system.

e. Solar Domestic Hot-Water Systems. At service connections to residential premises where there is a solar hot-water system and where a double check valve assembly (DC) is recommended by AWWA Manual M14 as incorporated into Rule 62-555.330, F.A.C., CWSs may allow a dual check device to be substituted for the DC.

3. Written cross-connection control programs shall include a policy regarding ownership, installation, testing, and maintenance of backflow preventers at service connections. The policy shall specify whether the CWS or the customer shall be responsible for ownership, installation, testing, and maintenance of backflow preventers at service connections; shall specify design/performance standards, and installation criteria, for new backflow preventers at

1 service connections; shall specify the frequency at which backflow preventers at service connections shall be
2 inspected, in-line field tested, or overhauled or replaced; shall specify minimum qualifications for persons
3 conducting in-line field testing of backflow preventers at service connections; shall specify procedures to be used for
4 conducting in-line field testing of backflow preventers at service connections; and shall specify design/performance
5 standards for equipment used to conduct in-line field testing of backflow preventers at service connections. CWSs
6 may own, install, test, and maintain backflow preventers at service connections by including them as part of the
7 CWS's meter installation or in the CWS's piping, or CWSs may make customers responsible for owning, installing,
8 testing, and maintaining backflow preventers at service connections by requiring customers to have them installed in
9 the customer's potable water system downstream of any CWS meter installation. If CWSs require customers to own
10 and install backflow preventers at service connections, CWSs shall require that such backflow preventers be
11 installed at a location as close as practical to the CWS's meter installation or the CWS's piping but, in all cases,
12 before the first branch or water distribution pipe off the customer's water service pipe. Installation criteria for new
13 backflow preventers at service connections shall be developed using, and shall be at least as stringent as, the
14 installation criteria in Chapter 4 of AWWA Manual M14 as incorporated into Rule 62-555.330, F.A.C. All backflow
15 preventers that are located at service connections and that are necessary to comply with the recommendations on
16 page 13, and pages 63 through 80, of AWWA Manual M14 as incorporated into Rule 62-555.330, F.A.C., and
17 modified and clarified under subparagraph 62-555.360(5)(a)2., F.A.C., shall be inspected and repaired, in-line field
18 tested and repaired, or overhauled or replaced as follows: air gaps shall be inspected immediately after installation or
19 repair and at least annually thereafter, and they shall be repaired if found deficient; in-line field testable backflow
20 preventers (i.e., reduced-pressure principle assemblies, reduced-pressure principle detector assemblies, pressure
21 vacuum breaker assemblies, double check valve assemblies, and double check detector assemblies) shall be in-line
22 field tested immediately after installation or repair and at least annually thereafter if they are located at service
23 connections, including "dedicated fire or irrigation service connections," to commercial or industrial premises or if
24 they are located at temporary service connections from fire hydrants or at least once every five years thereafter if
25 they are located at service connections, including "dedicated fire or irrigation service connections," to residential
26 premises, and they shall be repaired if they fail a test; and backflow preventers that are not in-line field testable (i.e.,
27 dual check devices) shall be overhauled (i.e., equipped with new springs and valve seats) or replaced at least once
28 every five years. The aforementioned frequency for testing in-line field testable backflow preventers located at

1 service connections to residential premises and the aforementioned frequency for overhauling or replacing backflow
2 preventers that are not in-line field testable may be reduced from once every five years to once every ten years at
3 service connections where the CWS uses automatic meter reading as discussed in Table 2 under sub-sub-
4 subparagraph 62-555.360(5)(a)2.a.(I), F.A.C. Furthermore, CWSs are advised of the following:

5 (I) Chapter 633, F.S., and Chapter 69A-46, F.A.C., contain installation requirements, design/performance
6 standards, and testing and maintenance requirements applicable to backflow preventers installed in piping used
7 exclusively for a fire protection system, excluding a standpipe system unless it is connected to a sprinkler system.

8 (II) Chapter 489, F.S., Chapter 61G4-12, F.A.C., and the *Florida Building Code*, which is adopted under
9 Chapter 9B-3, F.A.C., contain installation requirements, design/performance standards, and testing and maintenance
10 requirements applicable to customer-owned backflow preventers installed in the customer’s potable water system.

11 4. Written cross-connection control programs shall include procedures for assessing new or existing service
12 connections to determine the need for backflow preventers at service connections. Effective January 1, 2015, CWSs
13 shall assess all new service connections before providing water service to the service connections. CWSs shall
14 assess all existing service connections, including “dedicated fire or irrigation service connections,” to commercial or
15 industrial premises at least once by no later than December 31, 2015, unless an air gap or reduced-pressure principle
16 assembly already is installed at the service connection; and CWSs shall reassess existing service connections,
17 including “dedicated fire or irrigation service connections,” to commercial or industrial premises at least once every
18 ten years thereafter, and whenever there is a change in the customer of record, unless an air gap or reduced-pressure
19 principle assembly already is installed at the service connection. CWSs shall assess all existing service connections,
20 including “dedicated fire or irrigation service connections,” to residential premises at least once by no later than
21 December 31, 2024, unless an air gap or reduced-pressure principle assembly already is installed at the service
22 connection; and CWSs shall reassess existing service connections, including “dedicated fire or irrigation service
23 connections,” to residential premises at least once every ten years thereafter unless an AG or RP already is installed
24 at the service connection. Assessments made before the effective date of this subparagraph may be used to satisfy
25 the requirements of this subparagraph. Assessments may be made via questionnaire or inspection as appropriate.

26 5. Written cross-connection control programs shall include procedures for keeping cross-connection control
27 program records. CWSs shall keep records of service connection assessments; a record of the latest assessment
28 questionnaire or inspection report for each service connection shall be kept until the next assessment for the service

1 connection is conducted; actual questionnaires or reports, or electronic copies of questionnaires or reports, may be
2 kept. CWSs shall keep an up-to-date inventory of backflow preventers at service connections; for each such
3 backflow preventer, the inventory shall include information on the location of the backflow preventer; a description
4 of the hazard being contained by the backflow preventer; the type and size of backflow preventer; and installation
5 and overhaul history if the backflow preventer is not in-line field testable (i.e., if the backflow preventer is a dual
6 check device). CWSs shall keep records of backflow preventer tests for at least five years; the record of each test
7 shall include identification of the backflow preventer, the name of the tester, and the test results; actual test reports,
8 or electronic copies, may be kept, or information may be transferred to paper or electronic tabular summaries. Also,
9 recordkeeping requirements for annual cross-connection control program activities reports and backflow incident
10 reports are discussed in paragraph 62-555.360(5)(d), F.A.C., and subsection 62-555.360(8), F.A.C., respectively.

11 6. Written cross-connection control programs shall include procedures for educating customers about cross-
12 connection control and backflow prevention. CWSs shall conduct at least one customer education activity each year.
13 Customer education activities include the following: placing a brief description of the CWS's cross-connection
14 control program in the CWS's consumer confidence report required under Rule 62-550.824, F.A.C.; distributing an
15 educational brochure about cross-connection control and backflow prevention to all customers; maintaining a
16 display about cross-connection control and backflow prevention at a local mall, fair, or show for at least one week;
17 having a public service announcement about cross-connection control and backflow prevention aired on a local radio
18 or television station; and having an article about cross-connection control and backflow prevention published in a
19 local newspaper of general circulation.

20 7. Written cross-connection control programs shall include procedures for investigating, and responding to,
21 backflow incidents. Also, reporting requirements for backflow incidents are discussed in subsection 62-555.360(8),
22 F.A.C.

23 (b) CWSs may establish and implement written cross-connection control programs with more elements, or
24 more stringent requirements, than those described in paragraph 62-555.360(5)(a), F.A.C. Paragraph 62-
25 555.360(5)(a), F.A.C., establishes minimum requirements for written cross-connection control programs and does
26 not prohibit CWSs from establishing and implementing programs with more elements or more stringent
27 requirements.

28 (c) CWSs shall establish, and begin implementing, a written cross-connection control program that fully

1 conforms to paragraphs 62-555.360(5)(a) and (b), F.A.C., by no later than January 1, 2015.

2 (d) CWSs shall prepare annual cross-connection control program activities reports using Form 62-555.900(13),
3 Annual Cross-Connection Control Program Activities Report for Community Water Systems, hereby adopted and
4 incorporated by reference effective _____, and shall submit them to the appropriate Department of
5 Environmental Protection District Office or Approved County Health Department. CWSs shall prepare these reports
6 for the calendar year 2010 and for each subsequent calendar year and shall submit each report within three months
7 after the end of the calendar year covered by the report. CWSs shall keep copies of these reports for at least five
8 years in accordance with subsection 62-550.720(7), F.A.C.

9 (6) Community water systems shall ensure that, when their customers first connect to a reclaimed water
10 distribution system, an appropriate type of backflow preventer as described under subparagraph 62-
11 555.360(5)(a)2.a., F.A.C., is installed at the potable water service connection to the customer premises.

12 (7) ~~(3)~~ Upon discovery of a prohibited cross-connection, public water systems ~~shall~~ either shall ensure that the
13 cross-connection is eliminated; shall ensure that an appropriate type of backflow preventer is installed to prevent
14 backflow through the cross-connection and into the public water system; ~~eliminate the cross-connection by~~
15 installation of an appropriate backflow prevention device acceptable to the Department or shall discontinue water
16 service until the cross-connection ~~contaminant source~~ is eliminated or an appropriate type of backflow preventer is
17 installed. Appropriate types of backflow preventers for various applications are described in AWWA Manual M14
18 as incorporated into Rule 62-555.330, F.A.C., and modified and clarified under subparagraph 62-555.360(5)(a)2.,
19 F.A.C.

20 (8) Public water systems (PWSs) shall telephone, and speak directly to a person at, the appropriate Department
21 of Environmental Protection (DEP) District Office or Approved County Health Department (ACHD) as soon as
22 possible, but never later than noon of the next business day, after discovery of a backflow incident. Also, within one
23 month after discovery of a backflow incident, PWSs shall prepare a written backflow incident report and shall
24 submit it to the appropriate DEP District Office or ACHD. PWSs shall keep copies of written backflow incident
25 reports for at least five years in accordance with subsection 62-550.720(7), F.A.C. Each written backflow incident
26 report shall include the following information:

27 (a) The date and approximate time of discovery of the backflow incident.

28 (b) The source and cause, or suspected source and cause, of the backflow incident.

1 (c) The type and concentration of contaminants or foreign substances found within the public water
2 distribution system or the customer's potable water system as a result of the backflow incident and the portion, or
3 estimated portion, of the public water distribution system affected by the backflow incident.

4 (d) The precautionary or corrective actions taken in response to the backflow incident and the date and
5 approximate time of completion of each action.

6 (e) To the extent known by the public water system, the number and type of illnesses or physical health
7 problems reportedly resulting from the backflow incident.

8 ~~(4) Only the following are considered to be backflow prevention devices. They shall be installed in agreement~~
9 ~~with and under the supervision of the supplier of water or his designated representative (plumbing inspector, etc.) at~~
10 ~~the consumer's meter, at the property line of the consumer when a meter is not used, or at a location designated by~~
11 ~~the supplier of water or the Department. The devices are:~~

12 ~~(a) Air gap separation—A physical separation between the free flowing discharge end of a potable water~~
13 ~~supply pipeline and an open or non pressure receiving vessel. An "approved airgap separation" shall be at least~~
14 ~~double the diameter of the supply pipe measured vertically above the top of the rim of the vessel. In no case shall it~~
15 ~~be less than 1 inch.~~

16 ~~(b) Reduced pressure backflow preventer—A device containing within its structure a minimum of two~~
17 ~~independently acting approved check valves, together with an automatically operating pressure differential relief~~
18 ~~valve located between the two check valves. The first check valve reduces the supply pressure a predetermined~~
19 ~~amount so that during normal flow and at cessation of normal flow the pressure between the checks shall be less~~
20 ~~than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the~~
21 ~~atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall~~
22 ~~include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly~~
23 ~~located test cocks.~~

24 ~~(c) Atmospheric vacuum breaker—A backflow prevention device which is operated by atmospheric pressure~~
25 ~~in combination with the force of gravity. The unit is designed to work on a vertical plane only. The one moving part~~
26 ~~consists of a poppet valve which must be carefully sized to slide in a guided chamber and effectively shut off the~~
27 ~~reverse flow of water when a negative pressure exists.~~

28 ~~(d) Pressure vacuum breaker—A pressure vacuum breaker is similar to an atmospheric vacuum breaker except~~

1 that the checking unit poppet valve is activated by a spring. This type of vacuum breaker does not require a negative
2 pressure to react and can be used on the pressure side of a valve.

3 ~~(e) Double check valve assembly—An assembly composed of two single, independently acting, check valves,~~
4 ~~including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the~~
5 ~~water tightness of each check valve. A check valve is a valve that is drip tight in the normal direction of flow when~~
6 ~~the inlet pressure is one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction~~
7 ~~reverse to the normal flow. The closure element (e.g., clapper) shall be internally weighted or otherwise internally~~
8 ~~loaded to promote rapid and positive closure.~~

9 ~~(f) Residential Dual Check—A compact unit manufactured with two independent spring actuated check~~
10 ~~valves. The residential dual check is acceptable only as added back flow prevention in areas served by reuse systems~~
11 ~~defined in Chapter 62-610, Part III, F.A.C., when the cross-connection control program identifies activities specific~~
12 ~~to (5)(a) and (5)(b) of this section.~~

13 ~~(5) Cross-connection control programs specific to reuse systems defined in Chapter 62-610, Part III, F.A.C.,~~
14 ~~shall consider the following:~~

15 ~~(a) Enhanced public education efforts towards prevention of cross connections.~~

16 ~~(b) Enhanced inspection programs for portions of the distribution system in areas of reuse for detection and~~
17 ~~elimination of cross connections.~~

18 ~~(c) Dual check valves shall be considered acceptable for reducing risks from back flow only at residential~~
19 ~~properties served by reclaimed water unless:~~

20 ~~1. Local codes, ordinances, or regulations require greater levels of back flow prevention.~~

21 ~~2. Other hazards exist on the property that require a greater level of back flow prevention.~~

22 Rulemaking Specific Authority 403.086(8), 403.853(3), 403.861(9) FS. Law Implemented 403.086(8), 403.852(12), 403.853(1),
23 403.855(3) FS. History—New 11-19-87, Formerly 17-22.660, Amended 1-18-89, 1-3-91, 1-1-93, Formerly 17-555.360,
24 Amended 8-28-03, _____.

25 62-555.900 Forms and Instructions.

26 The forms used by the Department in the Public Water System Supervision Program are listed below by form
27 number and name. Each form has been incorporated into the rule that references it. Copies of these forms may be
28 obtained by writing to the Department of Environmental Protection, Drinking Water Section, M.S. 3520, 2600 Blair

1 Stone Road, Tallahassee, Florida 32399-2400. In addition, these forms are available at the Department of
2 Environmental Protection's District offices, at the Approved County Health Departments, and on the Department of
3 Environmental Protection's web site at www.dep.state.fl.us. Persons and public water systems shall report to the
4 Department using the forms listed below or using computer-generated versions of the forms listed below provided
5 such versions are identical to the forms listed below in every respect other than font type and style, font size, and
6 character spacing.

7 (1) through (12) No change.

8 (13) Annual Cross-Connection Control Program Activities Report for Community Water Systems. effective
9 _____. Deleted.

10 (14) through (22) No change.

11 Rulemaking Specific Authority 403.861, 403.861(9) FS. Law Implemented 367.031, 403.0877, 403.861, 403.8615 FS. History—
12 New 1-18-89, Amended 1-3-91, Formerly 17-555.900, Amended 12-10-96, 9-22-99, 4-3-03, 4-10-03, 8-28-03, 10-14-04, 1-17-
13 05,_____.



ANNUAL CROSS-CONNECTION CONTROL PROGRAM ACTIVITIES REPORT FOR COMMUNITY WATER SYSTEMS

INSTRUCTIONS: For the Year 2010 and for each subsequent year, this form shall be completed and submitted by each community water system (CWS). **WITHIN THREE MONTHS AFTER THE END OF EACH REPORTING YEAR**, complete this form and submit it to the appropriate Department of Environmental Protection District Office or Approved County Health Department. All information provided in this report shall be typed or printed in ink. Where used in this report, AG = air gap, RP = reduced-pressure principle assembly, RPDA = reduced-pressure principle detector assembly, PVB = pressure vacuum breaker assembly, DC = double check valve assembly, DCDA = double check detector assembly, and DuC = dual check device.

| | | |
|--|------------------------------|-----------|
| I. General CWS Information for the Year: | | |
| Public Water System (PWS) Identification Number: | | |
| CWS Name: | | |
| CWS Owner: | | |
| Contact Person: | Contact Person's Title: | |
| Contact Person's Mailing Address: | | |
| City: | State: | Zip Code: |
| Contact Person's Telephone Number: | Contact Person's Fax Number: | |
| Contact Person's E-Mail Address: | | |

| |
|---|
| II. Summary of CWS Cross-Connection Control Program Activities for the Year: |
|---|

A. Written Cross-Connection Control Program

1. Has the CWS established, and is the CWS implementing, a written cross-connection control program that fully conforms to paragraphs 62-555.360(5)(a) and (b), F.A.C.? Yes. No. If no, attach a description of revisions and actions necessary to bring the CWS's written cross-connection control program into conformance with paragraphs 62-555.360(5)(a) and (b), F.A.C., and a tentative schedule for completing such revisions and actions.

Note: Per paragraphs 62-555.360(5)(a) and (c), F.A.C., CWSs are required to establish, and begin implementing, a written cross-connection control program that fully conforms to paragraphs 62-555.360(5)(a) and (b), F.A.C., by no later than January 1, 2015.

2. Does the CWS use, or allow the use of, DCs or DuCs at service connections to residential premises where there is (a) an auxiliary water system that is used for irrigation; (b) an auxiliary water system that is used for purposes other than irrigation and that constitutes a high hazard; or (c) a reclaimed water system? Yes. No. If yes, which one or more of the following additional backflow protection measures is the CWS using, or allowing the use of, at these premises? Premises Inspections. Automatic Meter Reading. Customer Agreement. Managed Premises.
3. At commercial, industrial, or residential premises where there is a fire protection or irrigation system connected internally to the customer's potable water system, which one of the following is the CWS doing?
 - The CWS is relying on any internal backflow preventer required by the *Florida Building Code*, or the predecessor State or local plumbing code, at the location where the fire protection or irrigation system connects to the customer's potable water system.
 - The CWS is ensuring that an appropriate type of backflow preventer as specified in sub-sub-sub-subparagraph 62-555.360(5)(a)2.b.(II)(B) or 62-555.360(5)(a)2.c.(II)(B), F.A.C., is installed at the potable water service connection to the premises.
4. If the CWS is relying on internal backflow preventers at premises where there is a fire protection or irrigation system connected internally to the customer's potable water system, is the CWS ensuring that such internal backflow preventers are being tested, or overhauled or replaced, the same as backflow preventers at service connections? Yes. No. NA, the CWS is not relying on such internal backflow preventers.

Note: If the CWS is relying on internal backflow preventers at premises where there is a fire protection or irrigation system connected internally to the customer's potable water system, the CWS is strongly encouraged, but not required, to ensure that such internal backflow preventers are tested, or overhauled or replaced, the same as backflow preventers at service connections.

ANNUAL CROSS-CONNECTION CONTROL PROGRAM ACTIVITIES REPORT FOR CWSs

PWS Identification Number: _____

B. Inventory of Service Connections and Backflow Preventers at Service Connections at End of Reporting Year

| Category of Service Connections | Number of Service Connections at End of Reporting Year | | | | | | |
|---|--|-----------------------|---------------------------------|------------------------|---------------------------------|------------------------|--|
| | Being Served Water | With AG at Connection | With RP, or RPDA, at Connection | With PVB at Connection | With DC, or DCDA, at Connection | With DuC at Connection | Where Alarm Check Is Accepted ¹ |
| 1. Connections To <u>Residential</u> Premises, Excluding “Dedicated Fire or Irrigation Service Connections” to Residential Premises | | | | | | | |
| 2. Connections To <u>Commercial Or Industrial</u> Premises, Excluding “Dedicated Fire or Irrigation Service Connections” to Commercial or Industrial Premises | | | | | | | |
| 3. “Dedicated Fire Service Connections” ² to... | | | | | | | |
| • Commercial or Industrial Premises | | | | | | | |
| • Residential Premises | | | | | | | |
| 4. “Dedicated Irrigation Service Connections” ³ to... | | | | | | | |
| • Commercial or Industrial Premises | | | | | | | |
| • Residential Premises | | | | | | | |
| 5. Temporary Connections from Fire Hydrants | | | | | | | |
| 6. Total Connections (1+2+3+4+5) | | | | | | | |

¹ Count each “dedicated fire service connection” where, in accordance with sub-sub-subparagraph 62-555.360(5)(a)2.b.(I), F.A.C., the CWS has accepted an alarm check valve (provided as part of the fire protection system) in lieu of a backflow preventer at the service connection.

² A “dedicated fire service connection” is a connection whereby a fire protection system is connected directly to the CWS distribution system.

³ A “dedicated irrigation service connection” is a connection whereby an irrigation system is connected directly to the CWS distribution system.

C. Inspection, Testing, and Overhaul/Replacement of Backflow Preventers at Service Connections During Reporting Year

| Type/Location of Backflow Preventers | Number of Backflow Preventers | | |
|---|---------------------------------|------------------------------------|---|
| | Inspected During Reporting Year | Field Tested During Reporting Year | Overhauled or Replaced During Reporting Year ¹ |
| 1. AGs at Service Connections to Commercial, Industrial, or Residential Premises or at Temporary Service Connections from Fire Hydrants | | | |
| 2. In-Line Field Testable Backflow Preventers (i.e., RPs, RPDA, PVBs, DCs, and DCDA) at... | | | |
| • Service Connections, Including “Dedicated Fire or Irrigation Service Connections,” to <u>Commercial or Industrial</u> Premises | | | |
| • Temporary Service Connections from Fire Hydrants | | | |
| • Service Connections, Including “Dedicated Fire or Irrigation Service Connections,” to <u>Residential</u> Premises | | | |
| 3. DuCs at Service Connections to Residential Premises | | | |

¹ Include only those DuCs that were either (a) overhauled or (b) replaced with a DuC; do not include DuCs that were replaced with another type of backflow preventer.

D. Assessments of Service Connections During Reporting Year

| Type/Location of Service Connections | Number of Service Connections Assessed, or Reassessed, During Reporting Year to Determine Need for Backflow Preventer at Connections |
|---|--|
| 1. New Service Connections, Including “Dedicated Fire or Irrigation Service Connections,” to Commercial, Industrial, or Residential Premises and New Temporary Service Connections from Fire Hydrants | |
| 2. Existing Service Connections, Including “Dedicated Fire or Irrigation Service Connections,” to <u>Commercial or Industrial</u> Premises | |
| 3. Existing Service Connections, Including “Dedicated Fire or Irrigation Service Connections,” to <u>Residential</u> Premises | |

