Delete all of Current Chapter 14.55

Chapter 14.55
CROSS-CONNECTION CONTROL[1]

Sections:

14.55.010 Purpose.

The purpose of this chapter is to protect the public water supply system from contamination due to potential and actual cross-connections. This shall be accomplished by the establishment of a cross-connection control program as required by state regulations. The ordinance codified in this chapter is adopted pursuant to Title 17, Sections 7583 through 7605, inclusive, of the California Code of Regulations, entitled "Regulations Relating to Cross-Connections." (Ord. 303 (part), 1989)

14.55.020 Responsibility.

The city administrator shall be responsible for implementing and enforcing the cross-connection control program. An appropriate backflow prevention assembly shall be installed by and at the expense of the property owner at each user connection where required to prevent backflow from the water user's premises to the domestic water system. It shall be the property owner's responsibility to comply with the city of Angels requirements. (Ord. 303 (part), 1989)

14.55.030 Cross-connection protection requirements.

The type of protection that shall be provided to prevent backflow into the public water supply system shall be commensurate with the degree of hazard, actual or potential, that exists on the water user's premises. Unprotected cross-connections with the public water supply are prohibited. The type of backflow prevention assembly that may be required, listed in decreasing level of protection, includes: air-gap separation (AG), reduced pressure principle backflow prevention assembly (RP), and a double check valve assembly (DC). The water user may choose a higher level of protection than required by the water supplier. The minimum types of backflow protection required to

protect the approved water supply at the user's water connection to premises with varying degrees of hazard are listed in Table 1 of Section 7604, Title 17 CCR. Situations which are not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protections shall be determined by the water supplier or health agency. (Ord. 303 (part), 1989)

14.55.040 Backflow prevention assemblies.

A. Only backflow prevention assemblies which have been approved by the city of Angels shall be acceptable for installation by a water user. A list of approved backflow prevention assemblies will be provided upon request to any affected customer. Backflow preventions assemblies shall be installed in a manner prescribed in Section 7603, Title 17, CCR. Location of the assemblies shall be as close as practical to the user's connection. The city of Angels shall have the final authority in determining the required location of a backflow prevention assembly.

B. Testing of backflow prevention assemblies shall be tested only by persons who have demonstrated their competency in testing of these devices to the city of Angels as provided in Title 17 of the state Department of Public Health, and conducted by the city of Angels or subject to the approval of the city of Angels. Backflow prevention assemblies must be tested at least annually and immediately after installation, relocation or repair. More frequent testing may be required if deemed necessary by the city of Angels. No assembly shall be placed back in service unless it is functioning as required. These assemblies shall be serviced, overhauled, or replaced whenever they are found to be defective and all costs of testing, repair, maintenance and replacement shall be borne by the property owner. Approval must be obtained from the city of Angels prior to removing, relocating or replacing a backflow prevention assembly. (Ord. 303 (part), 1989)

14.55.050 Administration.

The cross-connection control program shall be administered by the city administrator. The city of Angels will establish and maintain a list of approved backflow prevention assemblies. The city of Angels shall conduct necessary surveys of water user premises to evaluate the degree of potential health hazards. The city of Angels shall notify users when an assembly will be tested. (Ord. 303 (part), 1989)

14.55.060 Water service termination.

A. When the city of Angels encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the procedure for terminating water service shall be instituted. Conditions of water uses that create a basis for water service termination shall include, but not are not limited to, the following:

1. Refusal to install or to pay cost of testing of a backflow prevention assembly, or to pay cost of repair or replacement of a faulty backflow prevention assembly;

2. Direct or indirect connection between the public water system and a sewer line;

3. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants;

4. Unprotected direct or indirect connection between the public water system and an auxiliary water system.

B. For condition A(1) of this section, the city will terminate service to a water user's premises after proper notification has been sent. If no action is taken within the allowed time period water service shall be terminated.

C. For conditions A(2), A(3), or A(4), the city of Angels shall take the following steps:

1. Make reasonable effort to advise the water user of intent to terminate water service;

2. Terminate water service and lock service valve. The water service shall remain inactive until correction of violations has been approved by the city of Angels. (Ord. 303 (part), 1989)

1

Prior ordinance history: Ord. 273.

Add New

Chapter 14.55
CONTROL OF BACKFLOW AND CROSS-CONNECTIONS

Sections:

14.55.010 GENERAL POLICY

A. **Purpose.** The purpose of this Ordinance is:

1. To protect the public potable water supply of City of Angels (COA) from the possibility of contamination or pollution by isolating within the customer's internal distribution system(s) or the consumer's private water system(s) such contaminants or pollutants which could backflow into the public water systems; and,

2. To promote the elimination or control of existing cross- connections, actual or potential, between the consumer's in-plant potable water system(s) and non-potable water system(s), plumbing fixtures and industrial piping systems; and,

3. To provide for the maintenance of a continuing Program of Cross-Connection Control which will systematically and effectively prevent the contamination or pollution of all potable water systems.

B. **Responsibility.** COA is responsible for the protection of the public potable water distribution/system from contamination or pollution due to the backflow of contaminants or pollutants through the water service connection. Backflow prevention assemblies are required when there is a potential for backflow contamination of the public water supply. This includes irrigation systems, wells, multi-family housing and all commercial and industrial properties. If an approved backflow prevention assembly is required at the customer's water service connection; or, within the customer's private water system for the safety of the water system, COA shall give notice in writing to said customer to install such an approved backflow prevention assembly(s) at specific location(s) on customer's premises. The consumer shall immediately install such an approved assembly(s) at the consumer's own expense; and failure, refusal or inability on the part of the customer to install, have tested and maintained said assembly(s) shall constitute a ground for discontinuing water service to the premises until such requirements have been satisfactorily met.

14.55.020 DEFINITIONS

A. **City of Angels (COA).** A public utility formed under the Public Utility District Act of the State of California originally enacted May 31, 1921.

B. "**Air-gap separation**" or "**AG**" means a physical vertical separation of at least two (2) times the effective pipe diameter between the free-flowing discharge end of a potable water supply pipeline and the flood level of an open or non-pressurized receiving vessel, and in no case less than one (1) inch.

C. "**Approved water supply**" means a water source that has been approved by the State Water Board for domestic use in a public water system and designated as such in a domestic water supply permit issued pursuant to section 116525 of the CHSC.

D. "**Auxiliary water supply**" means a source of water, other than an approved water supply, that is either used or equipped, or can be equipped, to be used as a water supply and is located on the premises of, or available to, a water user.

E. "**Backflow**" means an undesired or unintended reversal of flow of water and/or other liquids, gases, or other substances into a public water system's distribution system or approved water supply.

F. "**Backflow prevention assembly**" or "BPA" means a mechanical assembly designed and constructed to prevent backflow, such that while in-line it can be maintained and its ability to prevent backflow, as designed, can be field tested, inspected and evaluated.

G. "**Backflow prevention assembly tester**" means a person who is certified as a backflow prevention assembly tester.

H. *"***Community water system"** means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

I. *"***Contact hour"** means not less than 50 minutes of a continuing education course.

J. *"***Continuing education course"** means a presentation or training that transmits information related to cross-connection control programs and backflow prevention and protection.

K. "**Cross-connection**" means any actual or potential connection or structural arrangement between a public water system, including a piping system connected to the public water system and located on the premises of a water user or available

to the water user, and any source or distribution system containing liquid, gas, or other substances not from an approved water supply.

L. "**Cross-connection control specialist**" means a person who is certified as a cross- connection control specialist.

M. "**Distribution system**" has the same meaning as defined in section 63750.50 of CCR, Title 22, Division 4, Chapter 2.

N. "**Double check detector backflow prevention assembly**" or "**DCDA**" means a double check valve backflow prevention assembly that includes a bypass with a water meter and double check backflow prevention assembly, with the bypass's water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections.

O. "**Double check detector backflow prevention assembly – type II**" or "**DCDA-II**" means a double check valve backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections.

P. "**Double check valve backflow prevention assembly**" or "**DC**" means an assembly consisting of two independently-acting internally-loaded check valves, with tightly closing shut-off valves located at each end of the assembly (upstream and downstream of the two check valves) and fitted with test cocks that enable accurate field testing of the assembly. This type of assembly may only be used to isolate low hazard cross- connections.

Q. "**Existing public water system**" or "**existing PWS**" means a public water system initially permitted on or before July 1, 2024 as a public water system by the State Water Board.

R. **"Hazard Assessment"** means an evaluation of a user premises designed to evaluate the types and degrees of hazard at a user's premises.

S. "**High hazard cross-connection**" means a cross-connection that poses a threat to the potability or safety of the public water supply. Materials entering the public water supply through a high hazard cross-connection are contaminants or health hazards.

T. "**Low hazard cross-connection**" means a cross-connection that has been found to not pose a threat to the potability or safety of the public water supply but may adversely affect the aesthetic quality of the potable water supply. Materials

entering the public water supply through a low hazard cross-connection are pollutants or non-health hazards.

U. “**New public water system**” or “**new PWS**” means a public water system permitted after July 1, 2024 as a public water system by the State Water Board. A new public water system includes a public water system receiving a new permit because of a change in ownership.

V. “**Noncommunity water system”** means a public water system that is not a community water system.

W. “**Nontransient noncommunity water system”** means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

X. “**Premises containment**” means protection of a public water system’s distribution system from backflow from a user’s premises through the installation of one or more air gaps or BPAs, installed as close as practical to the user’s service connection, in a manner that isolates the water user’s water supply from the public water system’s distribution system.

Y. “**Pressure vacuum breaker backsiphonage prevention assembly**” or “**PVB**” means an assembly with an independently-acting internally-loaded check valve and an independently-acting loaded air inlet valve located on the discharge side of the check valve; with test cocks and tightly closing shutoff valves located at each end of the assembly that enable accurate field testing of the assembly. This type of assembly may only be used for protection from backsiphonage and is not to be used to protect from backpressure.

Z. “**Public water system**” or “**PWS**” has the same meaning as defined in section 116275(h) of the CHSC.

AA. “**Recycled Water"** is a wastewater which as a result of treatment is suitable for uses other than potable use.

BB. “**Reduced pressure principle backflow prevention assembly**” or “**RP**” means an assembly with two independently acting internally-loaded check valves, with a hydraulically operating mechanically independent differential-pressure relief valve located between the check valves and below the upstream check valve. The assembly shall have shut-off valves located upstream and downstream of the two check-valves, and test cocks to enable accurate field testing of the assembly.

CC. “**Reduced pressure principle detector backflow prevention assembly**” or “**RPDA**” means a reduced pressure principle backflow prevention assembly that includes a bypass with a water meter and reduced pressure principle backflow prevention assembly, with the bypass’s water meter accurately registering flow

rates up to two gallons per minute and visually showing a registration for all rates of flow.

DD. "**Reduced pressure principle detector backflow prevention assembly – type II**" or "**RPDA-II**" means a reduced pressure principle backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow.

EE. "**Spill-resistant pressure vacuum breaker backsiphonage prevention assembly**" or "**SVB**" means an assembly with an independently-acting internally-loaded check valve and an independently-acting loaded air inlet valve located on the discharge side of the check valve; with shutoff valves at each end and a test cock and bleed/vent port, to enable accurate field testing of the assembly. This type of assembly may only be used for protection from backsiphonage and is not to be used to protect from backpressure.

FF. "**State Water Board**", unless otherwise specified, means the State Water Resources Control Board or the local primacy agency having been delegated the authority to enforce the requirements of the CCCPH by the State Water Resources Control Board.

GG. "**Swivel-Ell**" means a reduced pressure principle backflow prevention assembly combined with a changeover piping configuration (swivel-ell connection) designed and constructed pursuant to this Chapter.

HH. "**Transient noncommunity water system"** means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

II. "**User premises**" means the property under the ownership or control of a water user and is served, or is readily capable of being served, with water via a service connection with a public water system.

JJ. "**User's service connection**" means either the point where a water user's piping is connected to a water system or the point in a water system where the approved water supply can be protected from backflow using an air gap or backflow prevention assembly.

KK. "**User Supervisor"** means a person designated by a water user to oversee a water use site and responsible for the avoidance of cross-connections.

LL. "**Water supplier**" means a person who owns or operates a public water system.

MM. "**Water user**" means a person or entity who is authorized by the PWS to receive water.

14.55.030 REQUIREMENTS

A. Water System

1. The water system shall be considered as made up of two parts: The Utility System and the Customer System.

2. Utility System shall consist of the source facilities and the distribution system and shall include all those facilities of the water system under the complete control of the utility, up to the point where the Customer's System begins.

3. The source shall include all components of the facilities utilized in the production, treatment, storage and delivery of water to the distribution system.

4. The distribution system shall include the network of conduits used for the delivery of water from the source to the Customer's System.

5. The Customer's System shall include those parts of the facilities beyond the termination of the utility distribution system which are utilized in conveying utility-delivered domestic water to points of use.

B. Policy

1. No water service connection to any premises shall be installed or maintained by COA unless the water supply is protected as required by State laws and regulations and this Ordinance. Service of water to any premises shall be discontinued by COA if a backflow prevention assembly required by this Ordinance is not installed, tested and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

2. The Customer's System shall be open for inspection at all reasonable times to authorized representatives of COA to determine whether cross-connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, COA shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with the State and County statutes relating to plumbing and water supplies and the regulations adopted pursuant thereto.

3. An approved backflow prevention assembly shall also be installed on each service line to a customer's water system at or near the property line or

immediately inside the building being served; but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:

a. In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by COA, the public water system shall be protected against backflow from the premises by installing an approved backflow assembly in the service line appropriate to the degree of hazard.
b. In the case of premises on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the public water system, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line appropriate to the degree of hazard. This shall include the handling of process waters and waters originating from the Utility System which have been subject to deterioration in quality.
c. In the case of premises having (1) internal cross- connection that cannot be permanently corrected or controlled, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, the public water system shall be protected against backflow from the premises by installing an approved backflow prevention assembly in the service line.

4. It is at the sole discretion of COA to assess the proper protection required and the type of protective assembly necessary under Subsections 14.55.030, B3, a, b, and c, shall depend upon the degree of hazard which exists as follows:

a. In the case of any premises where there is an auxiliary water supply as stated in Subsection 14.55.030, B, 3, and it is not subject to any of the following rules, the public water system shall be protected by an approved air- gap separation or an approved reduced pressure principle backflow prevention assembly.
b. In the case of any premises where there is water or substance that would be objectionable but not hazardous to health, if introduced into the public water system, the public water system shall be protected by an approved double check valve assembly.
c. In the case of any premises where there is any material dangerous to health which is handled in such a fashion as to create an actual or potential hazard to the public water system, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention assembly. Examples of premises where these conditions will exist include sewage pumping stations, chemical manufacturing plants, hospitals, mortuaries and

plating plants. Further examples can be found in APPENDIX D; HIGH HAZARD CROSS-CONNECTION CONTROL PREMISES in the adopted CCCPH

d. In the case of any premises where there is sewage treatment plant an approved air-gap separation will be mandatory, in accordance with the adopted CCCPH; APPENDIX D, HIGH HAZARD CROSS-CONNECTION CONTROL PREMISES.
e. In the case of any premises where there are "uncontrolled" cross-connections, either actual or potential, the public water system shall be protected by an approved air-gap separation or an approved reduced pressure principle backflow prevention assembly at the service connection.
f. In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross- connection survey, the public water system shall be protected against backflow from the premises by either an approved air-gap separation or an approved reduced pressure principle backflow prevention assembly on each service to the premises.

5. Any backflow prevention assembly required herein shall be a model and size approved by COA. The term "Approved Backflow Prevention Assembly" shall mean an assembly that has been manufactured in full conformance with the standards established by the American Water Works Association (AWWA) entitled:

    - AWWA C506-84 Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices;

    and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (FCCC&HR) established by:

    - Specifications of Backflow Prevention Assemblies – Proper section of the most current issue of the MANUAL OF CROSS-CONNECTION CONTROL.

    Said AWWA and FCCC&HR standards and specifications have been adopted by COA. Final approval shall be evidenced by a "Certificate of Approval" issued by an approved testing laboratory certifying full compliance with the said AWWA standards and FCCC&HR specifications.

    The FCCC&HR testing laboratory has been qualified by COA to test and certify backflow preventers. Testing laboratories other than the FCCC&HR will be added to an approved list as they are qualified by COA.

Backflow preventers which may be subjected to backpressure or back siponage that have been fully tested and have been granted a Certificate of Approval by said qualified laboratory and are listed on the laboratory's current list of "Approved Back flow Prevention Assemblies" may be used without further test or qualification.

6. It shall be the duty of the customer-user at any premises where backflow prevention assemblies are installed to have certified inspections and operational tests made at least once every 12- month period of time. In those instances where COA deems the hazard to be great enough, certified inspections may be required at more frequent intervals. Those inspections and tests shall be at the expense of the water user and shall be performed by COA personnel or by a certified tester approved by COA. Inspections and tests performed by COA personnel will be billed to the customer at rates established by COA. It shall be the duty of COA to see that these tests are made in a timely manner. The customer-user shall notify COA in advance when the tests are to be undertaken so that an official representative may witness the tests if so desired. These assemblies shall be repaired, overhauled or replaced at the expense of the customer-user whenever said assemblies are found to be defective. Records of such tests, repairs and overhaul shall be kept and made available to COA.

7. All presently installed backflow prevention assemblies which do not meet the requirements of this section but were approved devices for the purposes described herein at the time of installation and which have been properly maintained, shall be accepted until such time that it can no longer be maintained and tested in accordance with the COA requirements. Whenever an existing device is moved from the present location, can no longer be tested, or requires more than minimum maintenance or when COA finds that the maintenance constitutes a hazard to health, the unit shall be replaced by an approved backflow preventer assembly meeting the requirements of this section.