

repair, or maintenance of, or interfering with, any approved backflow prevention assembly, required by this policy, by any water user or any other person.

- E. The water user shall bear all costs for the installation of pumps or renovation of existing water user piping, as a result of any decreases in line pressure attributed to the upgrading of existing backflow prevention assemblies or the installation of approved backflow prevention assemblies.
- F. The District shall not be held responsible for any losses or damages incurred by the water user as a result of upgrading existing backflow prevention assemblies or the installation of approved backflow prevention assemblies.

8.04 Protection Requirements

General Provisions - Unprotected cross connections with the public water supply are prohibited.

Whenever backflow protection has been found necessary, the District will require the water user to install an approved backflow prevention device by and at his expense for continued service, or before a new service will be granted.

Wherever backflow protection has been found necessary on a water supply line entering a water user's premises, then any and all water supply lines from the District's mains entering such premises, buildings, or structures shall be protected by an approved backflow prevention device. The type of device to be installed will be in accordance with the requirements of this program.

Where Protection is Required - Each service connection from the District's water system for supplying water to premises having an auxiliary water supply shall be protected against backflow of water from the premises into the public water system unless the auxiliary water supply is accepted as an additional approved water supply by the District having jurisdiction.

Each service connection from the District's water system for supplying water to any premises on which any substance is handled in such fashion as may allow its entry into the water system shall be protected against backflow of the water from the premises into the public system. This shall include the handling of process waters and waters originating from the District's water system which have been subjected to deterioration in sanitary quality.

Backflow prevention devices shall be installed on the service connection to any premises having (a) internal cross connections that cannot be permanently corrected and controlled to the satisfaction of the District or state and local health department, or (b) 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 cross connections exist.

Type of Protection Required - The type of protection that shall be provided to prevent backflow into the approved water supply shall be in accordance with Table 1. The type of

protective device that may be required, listed in an increasing level of protection, includes: Double Check Valve Assembly (DC), Reduced Pressure Principle Device (RP), and Air Gap (AG). The water user may choose a higher level of protection than required by the District. The minimum types of backflow protection required to protect that approved water supply, at the user's water connection to premises with varying degrees of hazard are given in Table 1.

Situations that are not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the District. The District reserves the right to install a more stringent device than listed if, in its sole judgment, the particular circumstances of that water user require a higher degree of backflow protection.

Requirements Abbreviations - Tables 1 uses the given abbreviations for these types of devices: Air Gap Separation = AG; Reduced Pressure Principle Device = RP; Double Check Valve Assembly = DC; Double Check Detector Assembly = DCDA; and Reduced Pressure Principle Detector Assembly = RPDA.

<u>Water Use</u>	<u>Device</u>
1. Beauty Salons	DC
2. Board and Care Facilities, Skilled Nursing Facilities	DC
3. Buildings – Commercial / Industrial Multi-story over 50' in elevation above street level to ground floor.	DC
4. Canneries, Packing Houses, and Reduction Plants	RP
5. Car Wash	RP
6. Chemical processing or Storage Facilities	RP
7. Chemically Contaminated Water Systems	RP
8. Dairies and Cold Storage Plants	DC
9. Dye Works	RP
10. Fire Systems – Class 1 and 2	DC
11. Film Processing Laboratories	RP
12. Fire Systems – Class 3, 4, 5, and 6, as defined in California Department of Health Services Manual of Cross Connection Control.	
A. Class 3 and 4	DCDA
B. Class 5 and 6	AG/RPDA
13. Food Processing Plants	DC

14. Hospitals, Sanatoriums	RP
15. Irrigation Services into which fertilizers, herbicides, or pesticides are, or can be, injected or subject to back pressure.	RP
16. Multi-tenant (2 or more) commercial properties	RP
17. Laboratories	RP
18. Laundries, Commercial	DC
19. Medical Buildings, Clinics, or Veterinary Clinics	RP
20. Metal Manufacturing, Cleaning, Processing and Fabricating Plants	RP
21. Mobile Home Parks	DC
22. Mortuaries, Morgues, or Autopsy Facilities	RP
23. Oil and Gas Production, Storage, or Transmission Properties	RP
24. Paper Products Manufacturing Plants	RP
25. Plating Operations	RP
26. Premises with Piped Auxiliary Water Supplies where the approved supply is not physically connected to the auxiliary supply, i.e., canal well, pond	DC
27. Premises with booster pumps on the treated water	DC
28. Premises with Piped Auxiliary Water Supplies where the approved supply is connected physically to the auxiliary supply.	RP
29. Premises with Pumped Sewage	RP
30. Radioactive Materials or Substances	RP
31. Restricted, Classified, or Closed Facilities	RP
32. Restaurants with Automatic Dishwashers or Steam Tables	DC
33. Sand, Gravel, Cement, and Ready Mix Plants	DC
34. Secondary Schools and Colleges (w/o laboratories)	DC
35. Civil Works Facilities	DC

8.05 Backflow Prevention Devices

Approved Devices - Only backflow prevention devices that have been approved by the District shall be acceptable for installation by a water user connected to the District's potable water system.

The District will provide, upon request, to any affected water user a list of approved backflow prevention devices. The list is available at NCS D's Fire Department.

Installation - Backflow prevention devices shall be installed in a manner prescribed in Section 7603, Title 17 of the California Administrative Code. Location of the devices should be no farther than 3 feet from the water user's meter or, at the property line. The District shall have the final authority in determining the required location of a backflow prevention device.

The following is a description of the installation of backflow devices:

Air-gap (AG) Separation - An AG must be located as close as practical to the water user's connection, and all piping between the user's connection and receiving tank must be entirely visible unless otherwise approved in writing by the District.

Reduced Pressure (RP) Principle Backflow Prevention Assembly - An RP must be located no farther than 3 feet from the water user's meter. This type of assembly must be installed at least twelve inches and not more than thirty-six inches above grade (measured from the lowest point of the assembly), and must have adequate side and top clearance to allow access for testing and maintenance. A minimum side and top clearance of twelve inches should be allowed.

Double Check Valve Assembly (DC) - The approved double check valve assembly shall be located no more than 3 feet from the water user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance. If a double check valve assembly is installed below grade, it must be installed in a vault such that there is a minimum of twelve inches (12") between the bottom of the vault and the bottom of the assembly, so that the top of the assembly is no more than a maximum of eight inches (8") below grade, so there is a minimum of twelve inches (12") of clearance between the side of the assembly with the test cocks and the side of the vault, and so there is a minimum of twelve inches (12") clearance between the other side of the assembly and the side of the vault. Special consideration must be given to double check valve assemblies of the "Y" type. These assemblies must be installed on their "side" with the test cocks in a vertical position so that either check valve may be removed for service without removing the assembly. Vaults which do not have an integrated bottom must be placed on a three inch (3") layer of gravel.

Testing and Maintenance - The owners of any premises on which, or an account of which, backflow prevention devices are installed, shall have the devices tested by a person who has demonstrated their competency in testing of these devices to the District. Backflow prevention devices must be tested at least annually and immediately after installation, relocation or repair. The District may require a more frequent testing schedule if it is

determined to be necessary. No device shall be placed back in service unless it is functioning as required. A report in a form acceptable to the District shall be filed with the District Fire Department each time a device is tested, relocated, or repaired. These devices shall be serviced, overhauled, or replaced whenever they are found to be defective and all costs of testing, repair, and maintenance shall be borne by the water user.

The District will supply affected water users with a list of persons acceptable to the District to test backflow prevention devices. The District will notify affected customers by mail when annual testing of a device is needed and also supply users with the necessary forms which must be filled out each time a device is tested or repaired.

Removal - Approval must be obtained from the District before a backflow prevention device is removed, relocated, or replaced.

- A. Removal: The use of a device may be discontinued and the device removed from service upon presentation of sufficient evidence to the District to verify that a hazard no longer exists or is not likely to be created in the future;
- B. Relocation: A device may be relocated following confirmation by the District that the relocation shall continue to provide the required protection and satisfy installation requirements. A retest shall be required following the relocation of the device;
- C. Repair: A device may be removed for repair, provided the water use is either discontinued until repair is completed and the device is returned to service, or the service connection is equipped with other backflow protection approved by the District. A retest shall be required following the repair of the device;
- D. Replacement: A device may be removed and replaced provided the water use is discontinued until the replacement device is installed. All replacement devices must be approved by the District and must be commensurate with the degree of hazard involved.

User Supervisor - At each premise where it is necessary, in the opinion of the District, a user supervisor shall be designated by and at the expense of the water user. This user supervisor shall be responsible for the monitoring of the backflow prevention devices and for avoidance of cross connections. In the event of contamination or pollution of the drinking water system due to a cross connection on the premises, the District shall be promptly notified by the user supervisor so that appropriate measures may be taken to overcome the contamination. The water user shall inform the District of the user supervisor's identity on, as a minimum, an annual basis and whenever a change occurs.

8.06 Administration Procedures

Water System Survey - The District shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the District upon request for review of possible cross connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention device is necessary to protect the public water system, the required device must be installed.

The District may require an on-premise inspection to evaluate cross connection hazards. The District shall transmit a written notice requesting an inspection appointment to each affected water user. Any water user who cannot or will not allow an on-premise inspection of his piping system shall be required to install the backflow prevention device the District considers necessary.

The District, at its discretion, may require a re-inspection for cross connection hazards of any premise to which it serves water. The District shall transmit a written notice requesting an inspection appointment to each affected water user. Any water user who cannot or will not allow an on-premise inspection of his piping system shall be required to install the backflow prevention device the District considers necessary.

Customer Notification - Device Installation - The District will notify the water user of the survey findings, listing the corrective actions to be taken if any are required. A period of 60 days shall be given to complete all corrective actions required, including installation of backflow prevention devices.

A second notice shall be sent to each water user who does not take the required corrective actions prescribed in the first notice within the 60 day period allowed. The second notice shall give the water user a 2-week period to take the required corrective action. If no action is taken within the 2- week period the District may terminate water service to the affected water user until the required corrective actions are taken.

Customer Notification - Testing and Maintenance - The District shall notify each affected water user when it is time for the backflow prevention device installed on their service connection to be tested. This written notice shall give the water user 30 days to have the device tested and supply the water user with the necessary form to be completed and resubmitted to the District.

A second notice shall be sent to each water user that does not have their backflow prevention device tested as prescribed in the first notice within the 30-day period allowed. The second notice shall give the water user a 2-week period to have their backflow prevention device tested. If no action is taken with the 2-week period, the District may terminate water service to the affected water user until the subject device is tested.

Following the third notice, the District shall have the option (in place of disconnection) of performing the annual test and making minor repairs to the backflow device. The District shall notify the water user of the needed repair and provide a list of qualified backflow specialists who can repair the device. The device must be repaired within 30 days. The water user shall be billed for this service at the current charge out rate.

8.07 Water Service Discontinuance

General - When the District encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately stopped, the District shall institute the procedure for discontinuing the water service.

Basis for Discontinuance - Conditions or water uses that create a basis for water service termination shall include, but are not limited to, the following items:

- A. Refusal to install a required backflow prevention device;
- B. Refusal to test a backflow prevention device;
- C. Refusal to repair a faulty backflow prevention device
- D. Refusal to replace a faulty backflow prevention device
- E. Direct or indirect connection between the public water system and a sewer line;
- F. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants;
- G. Unprotected direct or indirect connection between the public water system and an auxiliary water system; or
- H. A situation that presents an immediate health hazard to the public water system.

8.08 List of Approved Backflow Prevention Device Testers

Persons who desire to have their names, company, and phone numbers placed upon the District's list of Approved Backflow Prevention Device Testers shall demonstrate competency in all phases of backflow prevention device testing and repair by submitting certification of the following minimum requirements:

- A. Applicants shall have had at least two (2) years experience in plumbing or pipefitting or equivalent qualifications.
- B. Applicants shall hold a valid Backflow Prevention Device Testers certification from the American Water Works Association (AWWA) California-Nevada Section.
- C. A tester of backflow prevention devices shall furnish evidence, showing availability of necessary tools and equipment to properly test such devices and shall be responsible for the competency and accuracy of all tests and reports prepared.

All fieldwork shall be completed and/or immediately supervised by the individual listed by the District. The District may remove the tester from the approved list at any time for improper testing, repairs and/or reporting.