



## Frequently Asked Questions about Backflow Prevention

### *What is a cross-connection?*

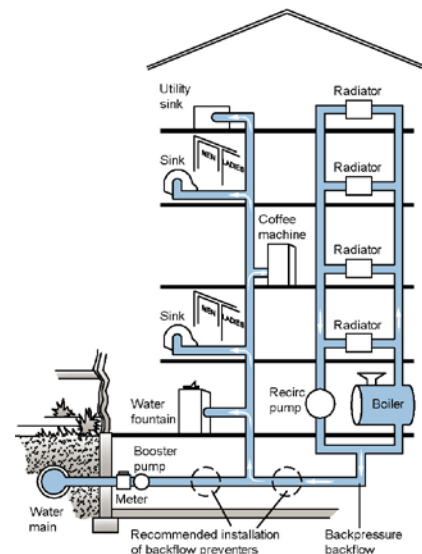
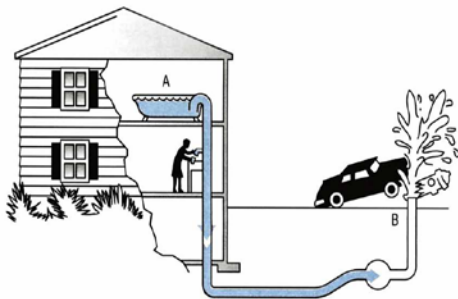
A cross-connection is an actual or potential connection between a public or consumer's drinking water system and a non-potable (non-drinkable) source of water or other fluid. Examples of cross-connections are the connections between the drinking water distribution system and irrigation or lawn sprinkler systems, hose bibs, fire sprinkler systems, carbonation units, boilers, and chemical feed equipment. Cross-connections are generally categorized as either low hazard (affecting taste and odor but not causing a health hazard) or high hazard (posing a risk to public health).

### *What is backflow?*

Under normal conditions, water from the distribution system flows into a consumer's premises. When backflow occurs, water flows from the consumer's premises back into the distribution system (or from an isolated system, such as a boiler, into the consumer's distribution system). If that water is contaminated, it can carry pollutants into the distribution system, which can cause illness or even death.

### *How does backflow occur?*

Backflow into the public water distribution system can occur when the water pressure in a consumer's premises is higher than the pressure in the water distribution system. This condition can be caused by a drop in water pressure in the distribution system (for example, because of firefighting or a break in a water main) or by the presence of systems within a consumer's premises that operate at higher pressures than that of the distribution system (for example, commercial boilers or steam heating systems).



*Examples of Cross-Connections*

### *What is a backflow prevention assembly?*

A backflow prevention assembly is a mechanical device that prevents water from flowing backwards. There are several types of backflow prevention assembly: reduced pressure principle (RP), double-check valve (DC), double-check detector (DCDA), reduced pressure principle

detector (RPDA), and pressure vacuum breaker. In addition, air gaps and atmospheric vacuum breakers are non-testable devices that also prevent backflow. The degree of hazard determines which type of assembly or device must be installed at a given location. To be approved for use in San Francisco, a backflow prevention assembly must be on the “Approved Backflow Prevention Assemblies” list developed by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.



*Example of a backflow prevention assembly*

***How often must a backflow prevention assembly be tested?***

Assemblies must be tested once a year. Water Quality Division will send you a notice at the beginning of the month in which your test is due.

***Who is responsible for arranging for testing of a backflow prevention assembly?***

The customer of record (that is, the entity to whom the water bill is addressed) is responsible for arranging for testing.

***Where can I find an approved tester?***

A list of companies employing Authorized Backflow Prevention Assembly Testers is available at [www.sfdph.org/backflow](http://www.sfdph.org/backflow).

***How do I change the contact information for a backflow prevention assembly on my property?***

To change the contact name or telephone number related to a backflow prevention assembly, the customer may contact the Cross-Connection Control Program at (650) 652-3199. To open or close a water service account or change the name or address on the account, contact Customer Services at (415) 551-3000.

***What does SPID mean on my 30-day notice?***

SPID stands for “service point identification.” The SPID number is the identifier used to track water meters in the databases of the Customer Services Bureau and Water Quality Division. The SPID number replaced the previously used tap number in mid-2009.

***What does PIC mean on my 30-day notice?***

PIC stands for “personal identification code.” The PIC is unique to each water meter each year. You must provide the PIC to your tester so that he or she can access information about your assemblies in the Cross-Connection Control Program’s database.

***Who is responsible for submitting test results to the Cross-Connection Control Program?***

The tester is responsible for entering test results into the Cross-Connection Control Program’s database. Test results must be entered within five calendar days of the test date. Testers should provide their customers with proof that the results have been entered as required.

***What if my backflow prevention assembly fails the test?***

If an assembly fails, the tester must contact the owner and get approval to try to repair the assembly and then retest it. If the assembly cannot be repaired, it must be replaced. Replacement of an assembly requires a permit from the Department of Building Inspection.

***What happens if I don't have my assembly tested?***

Annual testing and repair, if required, are necessary to ensure that backflow prevention assemblies are working properly. If you do not maintain your backflow prevention assembly, you put the public water system and occupants of your property at risk. If assembly test results are not received by the end of the month in which testing is required, Water Quality Division will send you a second notice requiring testing within 15 days, and the San Francisco Department of Public Health will send you a Final Notice to Provide Proof of Testing (Final Notice). In addition to requiring testing, the Final Notice will inform you of the fines that you may be liable for, as authorized under the San Francisco Health Code. For information about penalties for noncompliance with testing requirements, see *Penalties for Owner Noncompliance with Testing Requirements*, available at [sfwater.org/backflow](http://sfwater.org/backflow).

***How do I get a backflow prevention assembly removed?***

Removal, replacement, or relocation of a backflow prevention assembly requires a plumbing permit from the Department of Building Inspection, Plumbing Inspection Division. Permits can be obtained from San Francisco's Central Permit Bureau, located at 1660 Mission Street, telephone number (415) 558-6070, or on line at <http://www.sfdbi.org/index.aspx?page=228>. After an assembly has been removed, you or your representative must call the Cross-Connection Control Program at (650) 652-3199 and provide the service address, serial number, and permit number within 30 days of the removal.

***I have several backflow prevention assemblies with different test dates: How can I get them tested at the same time?***

If you would like to synchronize the test due dates for several assemblies on different water meters, contact the Cross-Connection Control Program at (650) 652-3199. Please be aware that, in the first year, synchronization could result in some tests being due less than 12 months after the previous test.

***I have a backflow prevention assembly next to a boiler: How can I arrange to have the assembly tested at the same time that the boiler is inspected?***

If you would like to synchronize the test due date for a backflow prevention assembly so that it coincides with the annual boiler inspection, contact the Cross-Connection Control Program at (650) 652-3199. Please be aware that, in the first year, synchronization could result in some tests being due less than 12 months after the previous test.

***What regulations authorize San Francisco's cross-connection control program?***

Cross-connection control is required by federal, state and local regulations, as summarized below:

- Federal: Safe Drinking Water Act (1974, amended 1986 and 1996) and Safe Drinking Water Act Amendments of 1986.
- State: California Health and Safety Code, Chapter 5 and Titles 17 and 22 of the California Code of Regulations (CCR).
- Local: San Francisco Health Code, Article 12A; San Francisco Public Utilities Commission Rules and Regulations Governing Water Service to Customers, Section G; San Francisco Plumbing Code, Chapter 6; and San Francisco Fire District General Order, File Code 02A.

***Where can I get additional information?***

Additional information is available at [www.sfwater.org/backflow](http://www.sfwater.org/backflow), or you can call the Cross-Connection Control Program at (650) 652-3199 between 8 am and 5 pm.