

Attachment 1

Marin Municipal Water District, CA

CHAPTER 11.14
CROSS-CONNECTIONS

Note: Prior ordinance history: Ord. 176.

§ 11.14.010. Purpose.

All water service connections are subject to the installation of backflow prevention assemblies in order to safeguard the public drinking water supply. The requirements of this chapter are in addition to any requirements of federal, state or local law.
(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.020. California Administrative Code provisions adopted.

California Administrative Code, Title 17, Sections 7583 et seq., are adopted and incorporated by reference herein, insofar as the same are applicable to the protection of the water supply of the district.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.030. Definitions.

Definitions used in this chapter, unless the context requires otherwise, are as follows:

"Air gap separation - approved" means a physical break between the supply pipe and a receiving vessel. The air gap shall be at least double the diameter of the supply pipe, measured vertically above the top rim of the receiving vessel, and in no case less than one inch.

"Auxiliary water supply" means any water supply on, or available to, premises other than the district's supply.

"Backflow" refers to the flow of water or other fluid or substance or combination or mixture thereof into the potable water supply distribution pipes from any source or sources other than the intended source of supply.

"Check valve - approved" means a check valve that is drip-tight in the normal direction of flow when the inlet pressure is at least one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g. clapper, poppet and other design) shall be internally weighted or otherwise internally loaded to promote rapid and positive closure. An approved check valve is only one component of an approved backflow prevention assembly, i.e., pressure vacuum breaker, double check valve assembly or reduced pressure principle assembly.

"Cross-connection" means any unprotected actual or potential connection or structural arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change over devices and other temporary or permanent devices through which or because of which backflow can or may occur are cross-connections.

"Double check valve assembly - approved" means an assembly composed of two single, independently acting, approved check valves, including tightly closing shut-off valves located at each end of the assembly and fitted with properly located test cocks.

"Reclaimed water" means wastewater which as a result of tertiary treatment is suitable

for uses other than potable use.

"Reduced pressure principle backflow prevent assembly - approved" means a device containing two independently acting approved check valves, together with a hydraulically operating, mechanically independent pressure relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located test cocks and tightly closing shutoff valves at each end of the assembly.

"Service connection" means the terminal end of a service connection from the public potable water system, i.e., where the water purveyor loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system. If a meter is installed at the end of the service connection, then the service connection shall mean the downstream end of the meter.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.040. Inspection.

The consumer's system shall be open for inspection at all reasonable times to authorized representatives of the district to determine whether cross-connections or sanitary hazards, including violations of this chapter exist.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.050. Backflow prevention.

Every water service connection to premises on which any of the following conditions exist or are planned shall be protected against backflow from the premises by suitable backflow prevention assemblies as specified in Section 11.14.060:

- (1) An auxiliary water supply which is not certified by the State Health Department as a domestic water supply; or
- (2) The handling of any substance under pressure in such a manner as to permit possible ultimate entry into the district's system; or
- (3) Internal cross-connections that are not permanently correctable; or
- (4) Intricate plumbing arrangements which make it impractical or impossible to ascertain whether or not cross-connections exist.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.060. Type of backflow prevention assemblies required.

The type of backflow prevention assemblies required shall be as follows, depending upon the degree of hazard which exists:

- (1) At the service connection to any premises where there is an auxiliary water supply handled in a separate piping system with no known cross-connections the district's system shall be protected by an approved double check valve assembly. If such service is subject to any back siphonage, the district's system shall be protected by an approved reduced pressure principle backflow prevention assembly.

- (2) At the service connection to any premises on which a substance that would be objectionable but not necessarily hazardous to health, if introduced into the district's system, is handled so as to constitute a cross connection, the district's system shall be protected by an approved reduced pressure principle backflow prevention assembly.
- (3) At the service connection to any premises on which an auxiliary water supply with cross-connections, the district's system shall be protected by an approved reduced pressure principle backflow prevention assembly.
- (4) At the service connection to any premises on which any material dangerous to health or toxic substances in toxic concentration is or may be handled under pressure, or in a situation subject to siphoning, the district's system shall be protected by an approved air gap separation. If the approved air gap separation requirement cannot reasonably be met, an approved reduced pressure principle backflow prevention assembly may be substituted if acceptable to both the district and the Marin County health department.
- (5) At the service connection to any sewage treatment plant or sewage pumping station, the district's system shall be protected by an approved air gap separation. If the approved air gap separation requirement cannot reasonably be met, an approved reduced pressure principle backflow prevention assembly may be substituted if acceptable to the district, the Marin County health department, and the State Department of Public Health.
- (6) At the service connection to any property where reclaimed water is provided, the district may also require that its potable system be protected by a backflow prevention assembly.
- (7) At the service connection to any premises to which an irrigation service is supplied, the district's system shall be protected by an approved double check valve assembly:
 - (a) If such service is subject to any back siphonage, or if fertilizers, herbicides, pesticides, or any other hazardous substance will be injected into the consumer's piping system, the district's system shall be protected by an approved reduced pressure principle backflow prevention assembly.
 - (b) The district may also require that its system be protected by a backflow prevention assembly appropriate to the degree of hazard to the public drinking water supply determined by the district to exist at any service connection not covered in subsection (a) of this section.
 - (c) Any protective assembly required in this section shall be a model approved by the district. In general, a double-check valve assembly or a reduced pressure principle backflow prevention assembly to be approved by the district shall be listed on the State Department of Public Health's list of approved backflow prevention assemblies.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.070. Installation of backflow prevention assemblies.

All backflow prevention assemblies shall be installed in a horizontal position a minimum of twelve inches above finished grade and in accordance with all district rules and regulations.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.080. Consumer responsibility.

It shall be the duty of the consumer, at any premises where backflow protection assemblies are required, to furnish, install, maintain and have tested by a certified tester, the assemblies at his own expense. A test shall be made as soon as is practical after installation and at least once a year thereafter; however, the district may require more frequent tests if extreme hazards exist or successive inspections disclose repeated failures in the operation of any assembly. The consumer shall notify the district when the assembly has been installed. Assemblies shall be repaired, overhauled, or replaced at the expense of the consumer whenever they are found to be unapproved or defective. Records of such tests, repairs and overhaul shall be kept by the consumer and shall be promptly forwarded to the district by the consumer.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)

§ 11.14.090. Discontinuance of service.

Water service to any premises may be discontinued by the district, pursuant to Chapter 11.28 if a backflow prevention assembly, required by this chapter is not installed, tested and/or maintained; or if any deficiency is found in the installation or operation of a backflow prevention assembly; or if it is found that a backflow prevention assembly has been removed, or bypassed. Service shall not be restored until such conditions or defects are corrected. Any cost to the district for the investigation and abatement of a deficiency shall be included in the charges due before service is restored.

(Ord. 236 §1, 1983; Ord. 314 §2, 1990)