

DIVISION 100 - PLANNING

SECTION 107 - BACKFLOW PREVENTION ASSEMBLY

107.01 GENERAL.

The authority for enforcing the Department's cross-connection control and backflow prevention program is derived under the Department's "Rules and Regulations." This program shall be further guided and enforced by any or all applicable Federal laws, State statutes or regulations and local County Ordinances or Codes. All backflow prevention assemblies shall be approved in accordance with the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research.

For Oahu only: All backflow prevention assemblies that vent to atmosphere, which are located within a Flood Hazard District, as delineated on the Flood Boundary and Floodway Maps, and Flood Insurance Rate Maps, shall be at least one foot above the regulatory flood elevation. If these backflow prevention assemblies cannot be located at least one foot above the regulatory flood elevation, the Manager must approve any alternatives installations.

107.02 REQUIREMENTS FOR NON-SPECIFIED FACILITIES.

The facilities and the backflow prevention requirements specified under Section 107.03 - REQUIREMENTS FOR BACKFLOW PROTECTION have been listed for the consumer's convenience. For facilities that are not listed, the same requirements for a similar specified facility shall be followed. Should a similar specified facility not be listed, the Department shall determine the required backflow prevention assembly.

107.03 REQUIREMENTS FOR BACKFLOW PREVENTION.

The specific requirements for cross connection and backflow prevention installation as specified in Division 300, Section 305 - BACKFLOW PREVENTION ASSEMBLIES are as follows:

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Table 100-17 - BACKFLOW PREVENTION REQUIREMENTS			
Facility	Backflow Prevention Assembly		
	Pressure Vacuum Breaker (Includes Spill-Resistant Pressure Vacuum Breaker)	Double Check Valve Assembly	Air Gap or Reduced Pressure Principle Backflow Preventer
Aircraft, Airport Facilities and Missile Plants			X
Agricultural Activities			X
Automotive Plants			X
Auxiliary Water Systems (Private Wells, Sewage Effluent, Used Waters, Reclaimed Waters (Regardless of Classification), Industrial Fluid Systems)			X
Beverage Bottling Plants			X
Buildings - (Hotels, Apartments, Commercial, Industrial, Public and Private Buildings) and Warehouses			X
Canneries, Packing Houses and Reduction Plants			X
Car Wash Facilities			X
Chemical Plants - Manufacturing, Processing, Compounding or Treatment			X
Chemically Contaminated Water System - Premises where chemicals used as additives with water in processes.			X
Civil Works - Federal, State, City, County and District Yards; Docks and Facilities; Military Camps, Posts, Stations, Public Buildings, and Facilities			X
Construction Activities			X
Dairies and Cold Storage Plants			X
Dual/Nonpotable Water Systems			X

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Table 100-17 - BACKFLOW PREVENTION REQUIREMENTS (cont.)			
Facility	Backflow Prevention Assembly		
	Pressure Vacuum Breaker (Includes Spill-Resistant Pressure Vacuum Breaker)	Double Check Valve Assembly	Air Gap or Reduced Pressure Principle Backflow Preventer
Fire Systems			
CASE I. No chemical added to system or no auxiliary source involved.		X ¹	<i>X (For Kauai Only)</i>
CASE II. A system containing antifreeze, rust or corrosion inhibitors fire retardants, or other chemicals utilizing auxiliary source			X
CASE III. A system with a fire department connection to the system riser.		<i>X (For Hawaii Only)</i>	
1 - Minimum requirement is a single check valve if fire protection system is not connected to a DC meter. <i>(For Maui only: Minimum requirement is a double check Detector Assembly.)</i>			
Golf Courses			X
Medical Buildings, Hospitals, Animal Hospitals, Animal Clinics, Sanitariums, Dental Clinics, Morgues, Mortuaries, Autopsy Facilities, Nursing and Convalescent Homes			X

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Table 100-17 - BACKFLOW PREVENTION REQUIREMENTS (cont.)			
Facility	Backflow Prevention Assembly		
	Pressure Vacuum Breaker (Includes Spill-Resistant Pressure Vacuum Breaker)	Double Check Valve Assembly	Air Gap or Reduced Pressure Principle Backflow Preventer
<p>Irrigation Systems - Premises having separate systems (i.e., Parks, Playgrounds, Cemeteries, Golf Courses, Schools, Estates, Ranches, etc.)</p> <p>CASE I. No fertilizer or chemical added to system</p> <p><i>For Kauai Only: RPs only</i></p> <p>CASE II. Irrigation system equipped with pumps, injectors, pressurized tanks or vessels used for adding pesticides or other chemicals into the system; irrigation systems subject to contamination from submerged inlets, auxiliary water supplies, ponds, and other sources of contaminated waters.</p> <p>2 - <i>For Kauai Only: RPs only; For Maui Only: Air gaps only</i></p>	<p><i>X (Excluding Hawaii)</i></p>	<p>X</p>	<p><i>X (For Maui Only)</i></p> <p>X²</p>
Laundries and Dye Works			X
Metal Manufacturing, Cleaning, Processing, Fabricating, and Plating Plants			X
Motion Picture Studios and Film Laboratories			X
<p>Multi-family Master Metered Developments (PDH's, Clusters)</p> <p>3 - Property must not be in an area that uses nonpotable or reclaimed water as an auxiliary source.</p>		<p>X³ <i>(For Oahu Only)</i></p>	X

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Table 100-17 - BACKFLOW PREVENTION REQUIREMENTS (cont.)			
Facility	Backflow Prevention Assembly		
	Pressure Vacuum Breaker (Includes Spill-Resistant Pressure Vacuum Breaker)	Double Check Valve Assembly	Air Gap or Reduced Pressure Principle Backflow Preventer
Multiple Services - Interconnected			X
Oil and Gas Production, Storage or Transmission Properties			X
Paper and Paper Products Plants			X
Power Plants			X
Radioactive Materials or Substances - Plants or Handling Facilities			X
Restricted, Classified or Other Closed Facilities			X
Rubber Plants - Natural and Synthetic			X
Sand and Gravel Plants and Quarries			X
Schools and Colleges			X
Separate Pressure Water Systems Utilizing Booster Pumps or Separate Storage Facilities			X
Shopping Centers and Other Multi-Tenant Buildings			X
Swimming Pools			X
Wastewater Facilities			X
Water Front Facilities and Industries			X