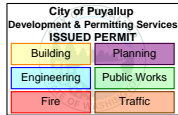


PRCTI20230139



In Premises, Fixture, Equipment & Point-of-Use Protection

The information in Table 5-4 may differ from backflow prevention requirements for individual plumbing fixtures found in plumbing codes. For public health protection within a customer's premises, the plumbing code having jurisdiction should be followed including permit, inspection and approval requirements.

Table 5-4 is provided to illustrate only *some* of the health hazards found in plumbing systems. This table is intended to assist water purveyors in assessing the degree of hazard a customer's plumbing system places upon the purveyor's water distribution system. Deficiencies in backflow prevention within the customer's premises should be compensated for through the selection of an appropriate assembly for premises isolation. The purveyor should notify the customer periodically of thermal expansion concerns and of the fact that they may not be protected internally from cross connection hazards when premises isolation is installed. Table 5-4 can also be found in its entirety as Appendix L of this manual.

DESCRIPTION OF FIXTURE OR EQUIPMENT, OR USE OF WATER	ASSESSED HEALTH HAZARD	MINIMUM PROTECTION AT FIXTURE*
Air compressor	low	DCVA
Air conditioning systems	high	RPBA
Air washers (remove particulates to control air pollution)	high	RPBA
Aquarium make-up water	high	AG,RPBA
Aspirators, medical/lab	high	RPBA
Aspirator, weedicide, herbicide, pesticide	high	RPBA
Aspirator, vault drain	high	RPBA
Autoclave	high	RPBA
Autopsy tables, embalming equipment	high	RPBA

Continued...

DESCRIPTION OF FIXTURE OR EQUIPMENT, OR USE OF WATER	ASSESSED HEALTH HAZARD	MINIMUM PROTECTION AT FIXTURE
Baptismal fountain	high	RPBA,AG,AVB
Bathtub, below rim filler	high	RPBA
Bedpan washer	high	RPBA
Beverage dispenser, post-mix using CO ₂	high	RPBA**
Bidets	low/high	AVB
Boiler feed lines	high	RPBA
Booster pumps	low/high	DCVA, RPBA
Bottle washing equipment	high	RPBA,PVB,SVB
Box hydrant (hose connection installed flush with the ground)	low/high	PVB,SVB,DCVA
Brine tank	low	AG,DCVA
Can washing equipment	high	RPBA, PVB, SVB
Chemical feed tank for industrial process	high	AG, RPBA
Chemical feeder for commercial cleaners	high	AG, RPBA
Chlorinators	high	RPBA
Commercial coffee urns	low	AG, AVB
Computer cooling lines	high	RPBA
Condensate tanks	high	RPBA
Commercial cooking kettles	low	AG, AVB
Cooling towers	high	AG, RPBA
Decorative ponds	high	AG, RPBA
Degreasing equipment	high	RPBA
Dental equipment, cuspidors	high	RPBA
Dialysis equipment	high	RPBA
Dishwashers	low	AVB
Dishwashers, commercial	high	AVB, RPBA, AG
Dishwashers, high-temp	high	AG, AVB
Drinking fountains	low	AG
Dye vats and tanks	high	AG, RPBA
Espresso machines	high	AG, RPBA
Etching tanks	high	AG, RPBA

Continued...

TABLE 5-4 (continued) RECOMMENDED PROTECTION AT FIXTURES & EQUIPMENT		
DESCRIPTION OF FIXTURE OR EQUIPMENT, OR USE OF WATER	ASSESSED HEALTH HAZARD	MINIMUM PROTECTION AT FIXTURE
Fermenting tanks	high	AG, RPBA
Fertilizer injection	high	RPBA
Film processing equipment	high	RPBA
Fire department connection	low/high	DCVA, RPBA
Fire sprinkler system without chemical addition	low	DCVA, DCDA
Fire sprinkler system with chemical addition	high	RPBA, RPDA
Floor drains	high	AG
Fluoride tanks (water treatment plants)	high	RPBA
Flushing floor drains	high	AVB
Frost-free yard hydrant (stop-and-drain valve)	low/high	DCVA, RPBA
Fume hoods (lab)	high	AVB
Garbage can washers	high	RPBA
Heat exchangers other than listed double wall types with leak path	high	RPBA
Heat pumps	high	RPBA
Hot water heating boilers, commercial	high	RPBA
Hydrotherapy baths	high	RPBA
Ice makers	high	AG, RPBA
Industrial fluid or piping systems	high	RPBA
Inter-connected (looped) services	low	DCVA
Irrigation system with chemical addition	high	RPBA
Irrigation system without chemical addition	low	PVB, SVB, DCVA
Janitor sinks	low	AVB, HBVB
Kitchen equipment	low	AVB
Laboratory equipment	high	AVB, LFVB
Laundry machines, commercial	high	RPBA
Livestock drinking tanks	high	AG, AVB
Make-up tanks	high	AG, RPBA
Mobile carpet cleaners (if connected to water supply)	high	RPBA
Mobile home park	low/high	DCVA, RPBA

Continued...

TABLE 5-4 (continued) RECOMMENDED PROTECTION AT FIXTURES & EQUIPMENT		
DESCRIPTION OF FIXTURE OR EQUIPMENT, OR USE OF WATER	ASSESSED HEALTH HAZARD	MINIMUM PROTECTION AT FIXTURE
Pesticide applicator trucks	high	AG, RPBA
Photo developing sinks, tanks	high	RPBA
Pressure washers without chemical injection	low	DCVA
Private fire hydrants	low	DCVA
Pump prime lines	high	RPBA
Radiant floor heating, hydronic heaters	high	AG, RPBA
Radiator flushing equipment	high	AG, RPBA
Recreational vehicle dump station	high	AG
Sewer connected equipment	high	AG
Sewer flushing	high	AG, RPBA
Spas	high	AG, RPBA
Steam generating equipment	high	RPBA
Sterilizers	high	RPBA
Stills	high	RPBA
Sumps	high	AG
Swimming pools	high	AG, RPBA
Trap primers	high	AG
Used, reclaimed or gray water systems	high	RPBA
Water softener/water treatment	high	RPBA
X-ray equipment	high	RPBA

*Some fixtures or equipment may indicate the need for recommended mandatory premises isolation as shown in Tables 5-1 and 5-3. In jurisdictions that recommend mandatory premises isolation, the minimum fixture protection may also be required to meet plumbing code and to provide protection to the water users within the premises. The minimum fixture protection for an assessed high health hazard under plumbing code may allow an AG, RPBA, PVB, SVB or AVB, depending on the hydraulic conditions and installation requirements.

**Some jurisdictions allow a vented dual check device within the beverage dispenser or installed in-line on the water connection with non-metallic potable piping between the device and dispenser.



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