



## Cross Connection Control Requirements for Protection of the Potable Water Supply

### Backflow Preventer Standards

#### **Potable Water Locations Where Backflow Assemblies Could Be Installed:**

Commercial, fire sprinkler systems (commercial & residential), reclaimed residential irrigation, or based on degree of hazard on-site.

Commercial Accounts – Reduced Pressure Principle Backflow Assembly (RPBA)

All backflow prevention devices or assemblies shall be installed at meter connection or property line, or side of home for residential irrigation and shall meet standards of: American Water Works Association, Foundation for Cross Connection Control & Hydraulic Research of Southern California, or American Society of Sanitary Engineers (ASSE).

ASSE-1013 Reduced Pressure Backflow Assembly (RPBA)

ASSE-1020 Pressure-Type Vacuum Breaker (PVB)

ASSE-1015 Double Check Valve Assembly (DCVA)

ASSE-1024 Dual Check Device (DuC)

ASSE-1047 Reduced Pressure Detector Check Assembly (RPDCA)

ASSE-1048 Double Check Detector Check Assembly (DCDCA)

#### **Potable Commercial Accounts:**

*All commercial connections, minimum Reduced Pressure Backflow Assembly (ASSE-1013)*

Commercial, toxic chemical used on-site RPBA (ASSE-1013)

Commercial, non-toxic chemicals used on-site RPBA (ASSE-1013)

Commercial irrigation RPBA (ASSE-1013)

Master meter connections DCVA (ASSE-1015)

#### **Dedicated Fire Lines:**

The following are typical as per the **Cross Connection Control Program Manual (CCCPM)**

*Minimum Type of Protection*

**Class 1\*** DCDCA (ASSE-1048) Double Check Detector Check Assembly. A closed automatic fire protection system with no potable piping without a pump connection, having 20 heads or less;

**Class 2\*** DCDCA (ASSE-1048) Double Check Detector Check Assembly. A closed automatic fire protection system with pump connection;

**Class 3** DCDCA (ASSE-1048) A closed automatic fire protection system with pump connection and an auxiliary water supply on or available to the premises; or an auxiliary water supply which may be located within 1,700 feet of the pump connection;

**Class 4** RPDCA (ASSE-1047) A closed automatic fire protection system with a closed pressure tank or DCDCA (ASSE-1048) supply (this class may have a jockey pump interconnected with the domestic water supply and/or an air compressor connection);

**Class 5** RPDCA (ASSE-1047) A closed automatic sprinkler system interconnected with an auxiliary water supply;

**Class 6** Fire protection system used for the combined purposes of supplying the automatic sprinklers, hose lines, fire hydrants and standpipes and being used for industrial purposes. RPDCA (ASSE-1047) (a) Self-draining fire hydrants on premises presenting a health or system hazard (i.e., chemical plants, petroleum storage plants, bulk storage yards, stockyards, sewer plants or similar facilities) where ground seepage of toxic materials may occur. DCDCA (ASSE-1048) (b) Self-draining fire hydrants on premises presenting a non-health hazard (i.e., parks, play fields or similar facilities) where ground seepage of non-health-hazard materials may occur.

A backflow prevention assembly shall be required in all premises not described in the previous sections.

\*All existing fire suppression systems being modified or upgraded shall have provision for any additional head loss caused by the required backflow preventer in the modification design. New fire suppression systems shall comply with the CCCPM manual.

**Residential or Commercial**

Irrigation, chemicals added	RPBA (ASSE-1013 or PVB ASSE-1020)
Reclaimed (residential)	DuC (ASSE-1024)
Properties maintaining auxiliary water supply (wells, ponds, lakes, etc.)	RPBA (ASSE-1013)