State Guidance for Approved Backflow Prevention Assemblies

All assemblies, used to protect the public water supply, must be approved by the Division of Water Supply. New installation and replacement assemblies required by a public water system must be included on the latest listing of the Approved List maintained by the Division of Water Supply. A backflow prevention device will qualify as an assembly, if it is consistent with the following definitions:

**DOUBLE CHECK-DETECTOR CHECK VALVE ASSEMBLY (DCDA)**

A Specially designed unit composed of a line size approved double check valve assembly with a specific bypass line equipped with a small water meter and a ¾ inch approved double check valve assembly. The meter shall register accurately for only very low rates of flow and shall show a registration for all rates of flow. The meter will detect small leakage or theft of water for unmetered fire lines. This assembly is designed for fire service lines and is recommended for unmetered fire lines. This assembly is designed to protect against a low hazard or pollutant.

**DOUBLE CHECK VALVE ASSEMBLY (DCVA)**

An assembly composed of two independently acting, approved check valves, including tightly closing shutoff valves located at each end of the assembly and fitted with properly located test cocks. This assembly is designed to protect against a low hazard or pollutant.

**REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY (RPBP)**

An assembly containing two independently acting approved check valves together with a hydraulically operating, mechanically independent pressure differential 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. This assembly is designed to protect against a health hazard (i.e. contaminant).

**REDUCED PRESSURE PRINCIPLE-DETECTOR BACKFLOW PREVENTION ASSEMBLY (RDPA)**

A specifically designed assembly composed of a line-size approved pressure principle backflow prevention assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for only very low rates of flow up to 3gpm and shall show a registration for all rates of flow. This assembly shall be used to protect against a non-health hazard or a health hazard. The RPDA is primarily used on fire sprinkler systems. This assembly is designed to protect against a health hazard (i.e. contaminant).

The following assemblies will meet recommendations and requirements for protection of the water system:

1. Reduced Pressure Principle Assembly
2. Reduced Pressure Principle Detector Assembly
3. Double Check Valve Assembly \*
4. Double Check Valve Detector Assembly\*

\*Double Check Valve Assemblies and Double Check Valve Detector Assemblies are permissible on non-chemical fire lines Class 1-3 only. Use of these assemblies is at discretion of the water purveyor.

Atmospheric Vacuum Breakers, Pressure Vacuum Breakers, and Spill-Resistant Pressure

Vacuum Breakers are not approved by the Division of Water Supply for premise isolation.

**Existing Assemblies not on Approved List**

Assemblies not listed on the Approved List may be accepted by the Division of Water Supply as an approved assembly under very strict guidelines. The water purveyor may elect, at their discretion, to accept only assemblies listed on the Approved List in order to establish the utmost confidence in backflow protection and prevention.

The Division of Water Supply highly recommends the use of assemblies listed only on the Approved List. Approval of assemblies not listed on the Approved List will be considered on a case-by-case basis by KWD with fulfillment of these requirements:

1. Approved Policy of water purveyor at the time of installation did not address or require assemblies from Approved List. Policy must be amended and approved, if needed, to allow unapproved existing assemblies that meet the following requirements.
2. Assembly must meet all installation criteria required by KWD
3. Must meet the definition of assembly and is annually tested. The assembly must be deemed Passed to remain as an acceptable and approved backflow prevention assembly for the protection of the water system.
4. Installation, operation, and maintenance of the assembly will provide adequate protection against backflow.
5. Assembly must be repaired using manufacturer-specified parts in accordance to procedures outlined by manufacturer.
6. A written plan must be reported by KWD concerning the assembly not shown on the latest Approved List. The plan will specify all conditions and information concerning the assembly including manufacturer, model, serial number, installation, repair information (if available), time line of replacement (depending on type of hazard and risk of contamination) if assembly cannot be repaired in accordance with manufacturer procedures. All plans and worksheets must be completed and kept on file by KWD.
7. If assembly cannot be repaired according to the manufacturer-specified procedures, it must be replaced with an assembly listed on the latest Approved List. The replacement assembly will be installed, operated, and maintained in accordance to the approved policy of the water purveyor.