INSTALLATION CRITERIA
FOR
REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLIES

MINIMUM INSTALLATION REQUIREMENTS are underlined, all others are suggestions or items to consider:

A. The RP assemblies should never be subject to flooding; therefore should:

1. Never be located in a pit or other area subject to flooding

2. Avoid piped drains for enclosures housing the units. Provision should be made for discharging water (maximum design discharge) directly through the wall of the enclosure housing the unit at a slightly higher elevation than surrounding ground level or maximum flood level.

3. The lowest part of the relief valve discharge port should be a minimum of 12 inches above either:

1. The ground

2. Top of the opening(s) in enclosure wall

3. Maximum flood level

Whichever is highest, in order to prevent any part of the assembly from becoming submerged.

B. All new backflow prevention assemblies being installed in Tennessee for the protection of a public water system should be included on the latest listing of "Approved Backflow Prevention Assemblies" maintained by the Division of Water Supply.

C. The assemblies should be installed where the units can be easily tested and repaired.

1. Installation of assemblies 2" and less there must be a minimum of six inch clearance from all walls. Assemblies over 2" must be a minimum of twelve inches from all walls.

2. Assemblies installed in stationery enclosures should have at least a 2 ft. clearance on each side of the assembly to facilitate testing and servicing. Adequate drainage must be provided.

3. Assemblies should not be installed higher than 5 ft. from the floor/ground to the center line of the assembly unless safe permanent access is provided for testing and servicing

D. The pipelines should be thoroughly flushed to remove foreign material and debris. A strainer should be added on the inlet side of the assembly before installation except for fire protection service lines.

E. Installation of backflow prevention assemblies will not allow any unprotected or uninspected connections in front of the backflow prevention assembly.

F. Backflow preventers should be installed with unions and isolation valves on both ends of the assembly to allow removal of the assembly for repair or replacement.

G. Provisions should be made to protect the assemblies from freezing. Insulating materials should not restrict the relief valve discharge or accessibility to test cocks or name plate of the unit. All enclosures should be designed to provide for adequate draining for the relief valve.

H. The relief valve of an RP should never be plugged, restricted, or solidly piped to a drain, ditch or pump. Rigidly secured air-gap funnels may be used to direct discharges away from the unit provided an approved air-gap separation is provided at the relief valve discharge and again at the discharge end of the drainpipe. An adequate area drain is recommended to handle the maximum relief valve flow to prevent flooding.

I. The test cocks, valve stems, or name plates should not be painted and their accessibility, operation of legibility should not be hampered nor the relief valve discharge passage be restricted by insulation or other coverings.

J. The assemblies should be installed in an approved position as listed in the Latest Approved List and special supports added if needed.

K. For applications where water temperatures exceed 110°F (43°C) only approved hot water devices are to be used.

L. Prior to completing the installation, temperature pressure relief valves on heating vessels should be properly installed and in good working condition. If needed, thermal expansion tanks should be installed.

M. No unprotected bypasses or connections are made between the assembly and meter.

Existing assemblies not meeting the minimum requirements above, with the exception of being installed in an area that may allow flooding of the assembly, may be allowed variances by the water system. However, no variance may be allowed that will compromise the protection of the assembly or that will allow contaminants in the distribution system. All variances should be documented and kept on file for the life of the assembly. Please review the document entitled: Approved Backflow Prevention Assemblies