INSTALLATION CRITERIA

FOR

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY

General:

All backflow prevention assemblies will be inspected to verify that the units meet the following requirements

and tested to verify that the installed units meet the performance requirements as set forth in the latest Edition of the "Manual for Cross Connection Control" published by the Foundation for Cross Connection Control and Hydraulic Research – University of Southern California

MINIMUM INSTALLATION REQUIREMENTS (RPBP):

A. The 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 plus the nominal size of the discharge opening of the assembly 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. Reduced Pressure 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 Foundation for Cross-Connection Control and Hydraulic Research. This list is available through Tennessee Department of Environment and Conservation, Division of Water Supply.

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

should be installed in accordance with manufacturer's installations.

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 stationary 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. Reduced Pressure 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.

F. 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.

G. The relief valve 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.

H. 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.

I. The assemblies should be placed in the upright position in a horizontal run of the pipe and special supports added if needed, unless the assemblies are approved for other orientations.

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

K. Prior to the installation of an assembly, ensure that the temperature-pressure relief valves on heating vessels are properly installed and are in good working condition. It is recommended that the

customer install thermal expansion tanks or other devices used to relieve pressure buildup instead of relying on the temperature-pressure valve on the heating vessel.

L. The assembly should be adequately supported to prevent the unit from sagging. Special supports are needed for units in the 4” to 10” size range