

SPRINKLER PROTECTION BASICS: VALVE REQUIREMENTS

GENERAL REQUIREMENTS FOR CONTROL VALVES IN SPRINKLER SYSTEMS:

- Valves controlling water supplies and valves in system supply piping are required to be listed (for sprinkler system service) indicating valves except as follows:
 - Non-indicating valves approved by the authority having jurisdiction. (Typically non-indicating gate valves at the connection to the municipal water distribution system are accepted when accessible by a roadway box.)
- Valves (including drain and test valves) are required to be designed for working pressures of 175 psi cold water (or 125 psi saturated steam).
- Where pressures exceed 175 psi, valves with the proper pressure rating are required to be used.
- Wafer type valves are required to be installed such that the wafer valve does not interfere with the operation of other valves.

Note: A “wafer type” valve is a valve which is not provided with a means to connect the valve to the piping system (e.g., flanges or grooves). The valve is installed in the system and held in place by friction (i.e., between flanges on the adjacent pipe lengths.)

Note: The provision above prohibits the use of a wafer type check valve immediately adjacent to a wafer type butterfly valve.

SPRINKLER PROTECTION BASICS: VALVE REQUIREMENTS

SYSTEM CONTROL VALVE LOCATIONS REQUIREMENTS:

- One indicating control valve is required to control all automatic sources of water supply.
- An indicating control valve is required to be provided for each water supply source (except the fire department connection).
- Where there are multiple water supply sources (or a single water supply source and a fire department connection), a check valve is required to be installed in each connection.
- Control valves required to be installed so that the valve position indicator is visible from the floor below.
- In systems with a single wet pipe riser, an alarm valve is permitted to be used as a required check valve.
- Indicating valves are required on each side of check valves when the municipal distribution system is used as a water supply source.
 - Exception indicates that an indicating valve is not required on the system side of a check valve where the municipal distribution system is the only water supply source.

SPRINKLER PROTECTION BASICS: VALVE REQUIREMENTS

REQUIREMENTS FOR PRESSURE REDUCING VALVE:

- Pressure reducing valves required when normal operating pressures will exceed the pressure rating of system components (typically 175 psi).
- Where ratings of system components is 175 psi and a pressure reducing valve is required, pressure reducing valve is required to limit the pressure to 165 psi at the maximum inlet pressure.
- Pressure gages are required to be provided on each side of a pressure reducing valve.
- A 1/2-inch relief valve set at 175 psi is required to be provided on the discharge side of the pressure reducing valve.
- An indicating control valve is required to be provided on the inlet side of a pressure reducing valve (except where the pressure reducing valve is also listed as an indicating control valve.)

* * * * *

Copyright © 2009 Richard C. Schulte
All Rights Reserved