



QUICK RESPONSE

*Saving life and property through effective licensing, plan review,
and inspection of fire protection systems.*

October 2012

Relief Valve

Unless an auxiliary air reservoir (**Exhibit 1**) is installed, all wet pipe systems shall be provided with a listed **relief valve** (**Exhibit 2**). In addition to being listed, the **relief valve** shall be a minimum of ½-inch in size. The **relief valve** shall be set to operate at 175 psi or 10 psi in excess of the maximum system pressure, whichever is greater.

The **relief valve** is installed to prevent excessive pressure buildup within wet systems. For example, increased temperatures due to weather conditions can warm up system components causing the water within the pipe to expand. If most of the air was evacuated from the sprinkler system, there would be no pockets of trapped air into which water could expand. Since wet systems are closed systems, these increased pressures act on system components and can cause system failure if pressures exceed pressure ratings of the components.

The **relief valve** is permitted to be located anywhere on the system. There is no requirement to pipe the relief valve to a suitable drain.



Exhibit 1 – Air Reservoir



Exhibit 2 – Relief Valve

Quick Response is presented monthly by the
Minnesota State Fire Marshal – Fire Protection Section

www.fire.state.mn.us