



# QUICK RESPONSE

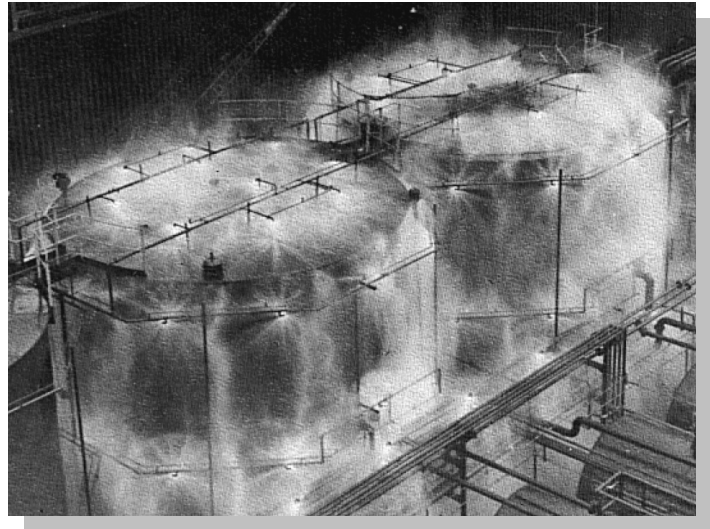
*Saving life and property through effective licensing, plan review, and inspection of fire protection systems.*

January 2008

## DELUGE SPRINKLER SYSTEM

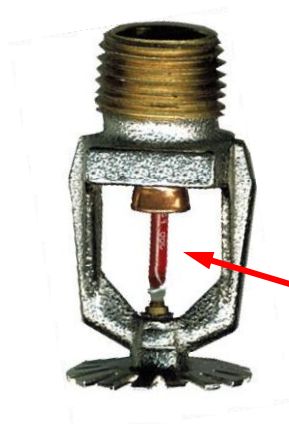
A **deluge system** is similar to a pre-action system (refer to December 2007, *Quick Response* newsletter) except the sprinkler heads are open and the pipe is not pressurized with air.

Deluge systems are connected to a water supply through a deluge valve that is opened by the operation of a detection system. The detection system is installed in the same area as the sprinklers. When the detection system triggers (opens) the deluge valve, water is introduced into the system's piping and is discharged from all the sprinkler heads simultaneously.



The purpose of a deluge system is to wet down all at once an entire area in which a fire may originate, by admitting water to "open" sprinklers, rather than by using "closed" automatic sprinklers that would open independently as the fire spreads.

"Open" sprinklers are identical to typical "closed" automatic sprinklers with the exception of the heat sensitive operating element has been removed.



**"Closed" Sprinkler**  
with operating element

**Operating element**



**"Open" Sprinkler**  
without operating element