

## QUICK RESPONSE

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

**March 2012** 

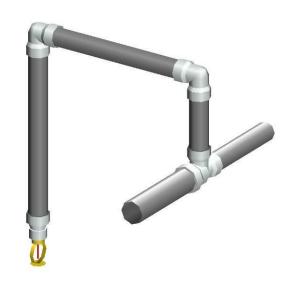
## **Return Bend**

The purpose of a **return bend**, also known as gooseneck, is to prevent the accumulation of sediment, mineral deposits, and pipe scale in the pipe drop to a fire sprinkler. If these materials collect, the drop pipe or sprinkler orifice could be obstructed and impaired.

**Return bends** shall be utilized where pendent sprinklers are supplied from a raw water source, a mill pond, or open-top reservoir. These water sources have the potential of containing excessive sediment.

Pendent and sidewall sprinklers utilized in dry or preaction systems are permitted to be installed on **return bends** provided the sprinklers, **return bend**, and branch line piping are in an area maintained at or above 40°F.

**Return bends** are not required for deluge systems or where dry-pendent sprinklers are utilized. **Return bends** are also not necessary on wet systems that use a potable water supply.



**Return Bend Arrangement** 

Since the objective of a **return bend** to avoid accumulation of sediment in the drop nipples, the **return bend** is required to be connected to the top of branch lines.

Another common use of a **return bend** is where exact positioning of a sprinkler head is desired, such as positioning of a sprinkler head in the center of a ceiling tile.