Backflow Bulletin #1

FIRE PROTECTION SYSTEMS

- **Chemicals in the System**
  Anti-Freeze, Foam, Corrosion Inhibitors, etc.

- **Chemicals in the System – Glycerin**
  Glycerin or similar food-grade non-toxic additive

- **Siamese Fitting or Similar External Water Connection**
  Allows for potential non-potable water entering the system

- **Looped System (Domestic Water)**
  No longer than a 3’ dead end or branch to any sprinkler head

- **Basic Wet Fire Protection System**
  Clean water only with no exterior connections

- **Single Head off of Domestic Water**
  No longer than a 3’ run from the domestic water line to the head

- **Multiple Heads off of Domestic Water – Remote Location**
  Water piping must be looped. Maximum run to a head is 3’

- **Multiple Heads off of Domestic Water – Remote Location**
  Piping not looped...has dead-ends. No chemical additives.

- **Multiple Heads off of Domestic Water – Remote Location**
  Piping not looped...has dead-ends. With chemical additives.

- **Dry Fire System**
  No Chemicals, Foam, External Connections (Siamese fittings), etc

- **Residential Fire System**
  Same as above. Generally a DC at the domestic water connection.

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**Miscellaneous:**
- ALWAYS check with your local Water Purveyor, Building Department, and/or Fire Department
- MANY communities require “Detector Assemblies,” not simply a DC or RP
- MANY communities allow a DC or DCDA even though Plumbing Code requires an RP. This is done mostly on retrofit projects where pressure head loss, lack of an adequate floor drain, etc are issues.
- ALL backflow preventers must be tested annually.
- RP installations must be high enough above the floor or ground to allow for an air gap below the relief valve.
- Backflow preventers shall be installed no higher than 5’ and shall have full access for testing and repairs.

This Bulletin has been provided as a service to all Illinois plumbers & testers, municipal employees, & water professionals. This is our interpretation of existing Illinois plumbing codes and IEPA regulations. Accuracy is critical. If you are a professional with questions or concerns over our interpretations, please contact us immediately.

YOUR ILLINOIS SECTION AWWA BACKFLOW COMMITTEE PROFESSIONALS

DC = Double Check Valve
DCDA = Double Check Detector Assembly
RP (aka RPZ) = Reduced Pressure Zone
RPDA = Reduced Pressure Detector Assembly