



# Backflow Bulletin #1

## FIRE PROTECTION SYSTEMS

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

- **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.

	None	DC	DCDA	RP	RPDA
				✓	✓
		✓	✓	✓	✓
				✓	✓
✓					
		✓	✓		
✓					
✓					
		✓			
				✓	
		✓	✓		
		✓			

### 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.