

SAN JUAN WATER DISTRICT - RESIDENTIAL FIRE SYSTEM REQUIREMENTS

San Juan Water District standards require that all new residential fire sprinkler systems within its service area are to be based on a Modified Passive Purge (MPP) design. An MPP system involves designing the fire system piping to the following minimum standards:

- All toilets shall be supplied from the fire sprinkler system piping.
- There shall not be any dead-end loops or zones in the fire system piping layout. Water must adequately circulate throughout the fire system piping.
- There shall not be any dead-end arm-overs or horizontal or vertical pipes longer than 36.0-inches.
- Water system pressures shall be provided to the designer by SJWD's Engineering Department. No third party provided pressures will be allowed.
- All residential fire sprinkler systems shall be approved by SJWD and the Jurisdictional Fire Entity/Agency.
- Copies of the Jurisdictional Fire Agency's approved inspection and testing reports shall be submitted to SJWD prior to a water service activation.

Without a fire sprinkler system being designed, constructed, inspected and approved as a MPP then SJWD may opt to require a retrofit of the system to meet the MPP requirements. If a residential fire sprinkler system cannot qualify as an MPP then SJWD shall require a backflow prevention device to be installed on the water service just downstream of the water meter before a service will be activated or re-activated. Any service that does not meet these requirements is subject to a shut-down lockout until such time as these requirements are met.

DESIGN PROCEDURES

There are two methods of designing residential fire sprinkler systems in SJWD's service area.

Method A – Design Based on a Standardized Pressure

Typically this methodology is used when the fire system can be based on a standard pressure of either 35-psi or 45-psi (based on the site specific location within SJWD's service area). The process involves contacting SJWD's Engineering Department and requesting a "Standard Pressure" for a given parcel or location. There is no fee associated with this methodology for obtaining a standard pressure value from SJWD. A copy of the design procedure for this methodology can be obtained from SJWD's Engineering Department.

Method B – Design Based on a Flow and Pressure Analysis

Typically this methodology is used when a site specific pressure is needed to complete a fire sprinkler system design, such as for a larger custom home or where there are unusual site conditions or other constraints. This design method begins with contacting SJWD and requesting a site specific Flow and Pressure analysis. An application for a flow and pressure analysis is submitted to SJWD along with a fee payment for this service. The current fee for this service can be found on SJWD's current fee schedule. A copy of the design procedure for this methodology can be obtained from SJWD's Engineering Department.

APPLICATION - A copy of the "Application for Flow and/or Pressure Analysis" form can be obtained from SJWD's Engineering Department.

QUESTIONS – Should you have any questions or need further information please do not hesitate to contact SJWD's Engineering Department.