

# **Fire Sprinkler Systems Policy**

## **Types of System**

## Direct Mains Fed System

This type of system uses the water mains to directly feed the fire sprinkler system. It can be used where the mains pressure and flow delivery is adequate to feed the fire sprinkler operating requirements directly.

# **Mains Fed Booster Systems**

This type of system uses an in line booster pump and could be used where there may be inadequate pressure to meet the fire sprinkler system requirements. Permission is required from South West Water (SWW) to install a booster pump.

# Storage System

This type of system uses a stored volume of water incorporating an air gap AA or AB (a cistern). To meet the demands of a fire sprinkler system SWW recommends that this type of system is used to ensure that a supply of water is permanently available. Any pumping plant should be located so that it is unlikely to be affected by fire. It shall also be accessible for maintenance purposes. All such storage systems must have appropriate backflow prevention arrangements at the inlet.

#### Water Pressure

SWW will meet the requirements of the Water Industry Act 1991 and the Guaranteed Standards Scheme in relation to pressure. This means providing minimum pressure of 7 metres static head. SWW cannot guarantee pressures above the minimum guaranteed standard. This should always be taken into consideration by the designer/installer before proceeding with any installation.

Customers and designers should be aware that network water pressures may vary depending on the season and time of day. The water supply may also be interrupted at any time for a variety of reasons including planned and unplanned/emergency maintenance or third party damage events. SWW may also alter the water pressure in the network from time to time to meet the differing demands of the network but will continue to meet the guaranteed standard Should a customer decide to install a sprinkler system directly from the mains water supply and SWW modify the water distribution as described above, SWW will not be held liable for any failure of the fire sprinkler installation or for the consequences of not installing a storage based system.

#### Water Charges

SWW do not charge for water used solely used for fire fighting fires and testing fire fighting equipment. SWW reserve the right to install a water meter on fire fighting supplies to ensure compliance.



# Water Sprinkler Designers'/ Installers' Responsibility

The designer/installer shall install a sprinkler system in accordance with the appropriate British / European standard and comply with the Water Supply (Water Fittings) Regulations 1999. There shall not be any connections from the dedicated fire fighting supply for domestic purposes. The designer/installer shall take into account that SWW will not guarantee flows and pressure above the GSS standards set out above and as already explained the supply may be interrupted due to planned activities on the network or due to a burst on the supply network.

Having two water connections for a single household property allows only the servive pipe for the domestic use to be metered and the dedicated fire sprinkler supply is not metered at the time of connection.

A single water connection can be taken from the water main to the boundary of the street in which the main is laid. Within the property boundary the service pipe will then be divided externally into two supplies, one for domestic use and one for the water sprinkler system. The domestic supply will be metered, the fire sprinkler supply may also be metered and no charge will be made for water used for fire fighting or testing purposes.

A single metered water connection can be taken from the water main to the property. If the supply is split internally, one for domestic use and one for the fire sprinkler system, then please note SWW will install a standard meter on the external communication pipe. This should be taken into consideration as part of the design and installation.

The maximum communication pipe size for a single household property is 32mm diameter, including for single connection, combined domestic and fire sprinkler connection configuration.

#### **Building Owners' Responsibilities**

They shall consult with the respective water sprinkler designer/installer before requesting any new water connection. It is the building owners' responsibility to specify the required internal diameter of service pipe connection when making a request for a new water connection.

Owners shall discharge all claims made by any person in respect of any liability which arises from or is in any way connected with the operation or failure of the system. They shall indemnify SWW in full on demand for all losses and expenses incurred by it arising from or in any way connected with such liability.

It is the owner occupiers' responsibility to maintain the associated check / isolation valves and ensure that the fire system is serviced as per the manufacturers' recommendations.

Building owners shall ensure that the pipe work used for fire fighting fittings purposes is solely used for this purpose and does not have any connections to other fittings. The building owner shall indemnify SWW against any loss of revenue associated with water usage not in connection with fire fighting or testing or fire fighting fittings.

If a water meter is not installed on a fire fighting dedicated supply and it is identified that the owner has used water from that supply for non fire fighting activities, the owner shall at their



expense install a water meter for that supply and pay charges for non fire fighting usage. It is an offence to use water in this manner and legal proceedings will be instigated.

## Water Regulations

Sprinkler system installations must be notified to SWW under the Water Supply (Water Fittings) Regulations 1999. SWW will maintain a register of customers who have advised them that they have installed a fire sprinkler system on a domestic property. A Regulation 5 notification must include drawings showing pipe runs and a schedule of fittings. SWW will consider an application for any in line booster pump, this type of pump can however, only be installed with the consent of SWW.

Any non-compliant fittings must be rectified within an agreed timescale with SWW.