

BRE Global discusses installation of sprinkler systems in residential and domestic premises

In spite of the tremendous improvement in fire safety brought about by the improvements in technology and regulations, over 300 people still lose their lives every year in fires in the home and over 8500 people are injured.

The largest numbers of lives lost in fires in the UK are in residential premises. Increasing the fire protection in domestic and residential premises means a greater chance to save lives in these areas.

Commercial sprinklers have been used for the protection of property such as factories, warehouses and department stores for well over 130 years and they can be effective in improving levels of safety in other types of buildings such as social housing, care premises, houses in multiple occupation (HMO) and hostels. The installation of a sprinkler system in properties such as these should help prevent injury and deaths should a fire occur.

A properly designed, installed and maintained sprinkler system can operate during the early stages of a fire enabling not only control, but also potentially extinguishment of a fire. This is an important consideration when the occupants are very young, elderly or disabled, for whom rapid escape may be difficult or impossible.

After the Rosepark care home fire in 2004, new legislation was introduced in Scotland which required all new care and residential homes and in some areas, sheltered housing, to be fitted with sprinkler protection.

In England and Wales, Approved Document B (ADB) supporting the Building Regulations (produced in 2006) incorporates clear recognition of the value of sprinklers in improving levels of safety for occupants as well as in preventing the spread of fire.

ADB notes that a sprinkler system should be designed and installed in accordance with BS 9251 (*Sprinkler systems for residential and domestic occupancies – Code of practice*) and DD 252 (*Components for residential sprinkler systems – Specification and test methods for residential sprinklers*) for domestic and residential applications

which fall within the scope of the standards. Whilst ADB refers to the draft for development DD 252, it should be noted that this standard has now progressed to a full standard BS 9252 (*Components for residential sprinkler systems – Specification and test methods for residential sprinklers*).

A properly designed, installed and maintained sprinkler system is an extremely effective means of fire protection. In order to ensure the delivery of this protection, sprinkler systems, components and installers should be third-party approved.

In order to support the developing application of residential sprinkler systems BRE Global offers product approval to BS 9252. Approval by an independent third-party, such as LPCB (part of BRE Global), includes Factory Production (FPC) audits to ensure that a product, components or service meets, and continues to meet, the specifications set out in BS 9252.

To ensure the suitability and reliability of a sprinkler system it is also important that those entrusted with the process of design, installation and maintenance of a sprinkler system are suitably trained and approved.

Schemes such as LPS 1048 (*Requirements for the approval of Sprinkler System Contractors in the UK and Ireland*) and LPS 1301 (*Requirements for the approval of Sprinkler Installers in the UK and Ireland for Residential and Domestic Sprinkler Systems*) are widely acknowledged and accepted as primary installer schemes for the sprinkler market in the UK.

Another emerging option for protecting residential and domestic premises from fire has recently entered the marketplace in the form of watermist technology. As with sprinklers, these systems, components and installers should also be third-party approved in order to ensure that products have met – and will continue to meet – appropriate standards.

The newly published LPS 1283 (*Requirements and test methods for the certification of water mist systems for use in commercial low hazard occupancies*) is an approval scheme that involves an assessment of a watermist system's components and design manual, and systems performance against fire testing protocols in DD 8489-7 test protocols (*Fixed fire protection systems – Industrial and commercial watermist systems – Part 7: Tests and requirements for watermist systems for the protection of*

low hazard occupancies), together with additional fire tests to enable a wider range of end use applications. The scheme employs a methodology for defining the scope of each application and specifies appropriate limits of use.

In order to support the product scheme, a complementary installer scheme LPS 1284 will soon be launched.

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