

A sprinkling of value

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Hugh Johnson explains the benefits of installing sprinklers in schools

Both passive and active fire precautions contribute to securing the health, safety, welfare and convenience of building users and conserving fuel and power; they also indirectly prevent excessive use of water. So far as the use of sprinklers in schools is concerned, though, the argument has tended merely to be about whether they provide property protection or add value in terms of the health and safety of firefighters, pupils and staff.

Cost?benefit analysis

If you only wish to make such a pecuniary consideration, then a cost?benefit analysis will still prove that the installation of sprinklers is worthwhile from a rebuilding point of view, as well as allowing greater flexibility in terms of layout and space and the potential for future extensions, while reducing fire resistance periods, boundary conditions and the number of escape stairways.

From a Building Regulations perspective, the guidance in [Approved Document B](#) does not generally invoke the use of sprinklers, but [Building Bulletin 100](#) does at least recommend their use, and until recently all schools were almost invariably fitted with sprinklers. But *Building Bulletin 100* is, like Part B, guidance rather than regulation.

In the [adjournment debate of the House of Commons on 1 March 2007](#), Conservative MP Michael Howard sought and won a commitment that all new schools built, with the exception of a few low-risk ones, were expected to have sprinklers fitted, and this is stated in clause 1.6 of *Building Bulletin 100*.

Although this requirement still applies in Scotland and Wales, [the most recent guidance](#) as far as England is concerned is from the Department for Education in 2014, after consultation with the Education Funding Agency.

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This says that both Approved Document B and *Building Bulletin 100* demonstrate ways of complying with Part B, Fire Safety, and that for schools, [Part B of the Building Regulations](#) will typically be satisfied where the fire safety guidance in the bulletin is followed. While the bulletin has a lot to say about sprinklers, they are designed for property protection and not to meet fire safety standards. *Building Bulletin 100* goes on to state that the risks highlighted are about arson attacks.

You do not have to follow the guidance in the bulletin, but could use [BS9999](#) or take a fire safety engineering approach. If you do follow the bulletin, however, you do not have to use the risk assessment that goes with it, but can take any reasonable approach that will establish whether or not a school is vulnerable to arson attacks.

Revised bulletin

In July 2016, the Department for Education published a [consultation](#) on the revision of *Building Bulletin 100* that removed many of the above requirements.

It now states: 'The Building Regulations do not require the installation of fire sprinkler suppression systems in school buildings for life safety and therefore *BB 100* no longer includes an expectation that most new school buildings will be fitted with them.'

The Building Regulations never did require the installation of automatic fire sprinkler systems for life safety, though, so nothing has actually changed in Approved Document B. Why then, has this been altered in *Building Bulletin 100*, and who has instigated and authorised this change?

If you have ever had the unfortunate experience of witnessing a school being destroyed by fire – including the loss of coursework and exam work prepared by teachers and pupils, then waiting a year for the school to be rebuilt and in the meantime travelling to temporary facilities some distance away with all the problems this entails – and still believe that it does not affect the health, safety, welfare and convenience of pupils, parents and teachers alike, then you are burying your head in the sand for the sake of economy.

Sprinklers are 24/7 firefighters, and will be required more and more while the numbers of human firefighters are continually reduced and based further away as local fire stations are closed in favour of rationalisation and centralisation.

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Further information

- Related competencies include [Fire safety](#).
- This feature is taken from the RICS *Building control journal* (November/December 2016).