

Education risk review report

Business Sector Risk Review Reports are created for each and every occupancy category held within the FPA/ RISCAuthority Large Loss Fire database where sufficient records exist for meaningful analysis and are updated annually. They are designed to highlight the loss history in each business sector to help inform insurance and risk control choices, and provide brief bespoke best-practice guidance.

This data is best appreciated in association with local information on F&RS response, AFA policy, and firefighting water availability data which is available to RISCAuthority members via the website (www.RISCAuthority.co.uk). The data presented here spans the two years January 2012 to December 2013; the complete database and analytical tools may be accessed by members via the RISCAuthority website.

Other

Sub category



Education fires account for **3.6%** of all large loss fires.

Fires involving **Other** account for **0.5%** of all large loss fires and **13.9%** of all **Education** fires.

Causation	Accidental	Deliberate	Unknown
Education	45%	32%	22%
Other	50%	21%	29%

Time of fire	Midnight - 6am	6am - midday	Midday - 6pm	6pm - midnight
Education	25%	18%	29%	28%
Other	29%	29%	21%	21%

Impedances	Access	Acetylene	Inadequate water supply	Resources
Education	64%		27%	9%
Other			100%	

11 Education fires of **101** had impedances, **0** of these had more than one impedance.

1 Other fires of **14** had impedances, **0** of these had more than one impedance.

Cost of fire

Education fires account for **6%** of all large loss financial loss, with a mean average cost of **£1,255,998** per fire.

Other fires account for **8%** of all **Education** loss, with a mean average cost of **£722,464** per fire.

Insurance component	Material damage	Business interruption	Contents	Resources	Machine and plant	Stock	Other
Education	70%	13%	12%	0%	0%	0%	6%
Other	68%	22%	7%	0%	1%	0%	1%

These statistics are based upon information supplied by loss adjusters to the FPA on a voluntary basis and not all insurers conducting business in the UK contribute to this dataset. They represent only sums paid out where the total loss is in excess of £100K and are deficient of losses under £100K, deductibles, under-insurance, uninsured, self-insured and captively insured components, which may be significant. In a year, total losses captured typically account for 50% of the ABI declared annual fire loss figure - which is similarly deficient of the same components (except the £100K threshold).

FPA BUSINESS SECTOR RISK REVIEW REPORT FOR EDUCATION – OTHER SCHOOLS

Fire safety legislation

In common with many businesses, a fire risk assessment should be undertaken for all areas of schools in compliance with the Regulatory Reform (Fire Safety) Regulations 2005 (or equivalent legislation in Scotland and Northern Ireland). In some special schools the Equality Act 2010 may also apply. It is unlikely that an assessment in compliance with the Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) will be necessary. Furniture and furnishings should comply with the Furniture and Furnishings (Fire) (Safety) Regulations 1988.

Fire hazards

In most special needs and other specialist schools there are large quantities of paper and craft materials that present a high fire load. This results in many fires developing rapidly, causing costly and time consuming refurbishment or rebuilding operations. Other hazards include:

- The presence of sensory rooms and similar facilities which may incorporate large volumes of combustible materials.
- Large quantities of paper, card, plastics and similar materials hanging on walls and notice boards, compromising the surface spread of flame properties of escape routes.
- Decorations on walls and hanging from ceilings at Christmas and times of other festivals.
- Plastic and wooden sports and recreational equipment outside the premises often stored insecurely in wooden sheds or beneath the eaves for protection from the weather.
- The vulnerability of the building to intruders who light fires in an attempt to destroy evidence of theft.
- Easy access and opportunities to deliberately ignite combustible waste and other materials.
- Hot work and the use of hand tools by maintenance staff and contractors.
- Electrical hazards from poorly maintained installations or electrical equipment.
- The use of portable heaters to supplement the central heating in cold weather.
- Cooking activities in school kitchens.
- Parents' cars obstructing access for fire and rescue service vehicles during arrival and pick-up times.

Risk control recommendations

The following risk mitigation measures should be considered to eliminate or reduce the risk of fire in specialist schools:

- Minimise supplies of combustible materials that are held in the school. Keep stocks that are not required immediately in protected stationery stores or cupboards.
- When designing sensory rooms and similar facilities ensure that non-combustible materials are utilised wherever possible.
- Ensure that an arson risk assessment is carried out as part of the fire risk assessment undertaken in compliance with fire safety legislation. Like the fire risk

assessment, the arson risk assessment should be reviewed periodically.

- Review security arrangements periodically, particularly if fires (even small fires) are deliberately started in the neighbourhood.
- Train staff in the selection and use of the firefighting equipment that is provided.
- Eliminate hot work (including burning off of paint when redecorating) being carried out by maintenance staff and contractors wherever possible. When such work is necessary, it should be undertaken outside of school hours and a hot work permit system should be in place.
- Engage a competent electrician to inspect the installed electrical wiring in accordance with the requirements of BS 7671 at periods as determined by a fire risk assessment, with the results being recorded.
- Carry out in-service inspection and testing of portable electrical equipment ('PAT testing') at periods in accordance with HS(G)107 and the IET *Code of practice for in-service inspection and testing of electrical equipment*, or more frequently as determined by a fire risk assessment.
- Provide training to kitchen staff in the emergency shutting down of cooking facilities, the operation of fixed fire suppression systems (where installed) and other emergency actions to take in the event of a fire.
- Ensure that appropriate passive fire protection measures are in place to minimise the risk of fire spreading between compartments within the building, from the building to adjacent premises, or vice versa. School kitchens and any other area assessed as being of 'high' fire risk in the fire risk assessment for the premises should be located in separate fire compartments.
- Protect the premises by installing an automatic fire detection and alarm system, designed to an appropriate category as defined in BS 5839-1, which is monitored by an alarm receiving centre when the premises is unoccupied.
- Give serious consideration to installing an automatic sprinkler system designed in accordance with BS EN 12845 in all areas to control a fire until the arrival of the fire and rescue service.
- Liaise with the local fire and rescue service where appropriate to ensure that water supplies in the area are adequate for the sprinkler installation and for firefighting purposes.
- Engage parents and carers with regard to parking in the vicinity of the school to ensure that access by the fire and rescue service is not impeded should a fire occur at the beginning or end of the school day. Liaise with police and the local authority if necessary and emphasise the need for road markings and school patrols where appropriate.
- Implement an effective emergency plan to ensure the resilience of the school activities. One way of approaching this is to complete the ROBUST business continuity and incident management planning software available free from <https://robust.riscauthority.co.uk/>

Further information

1. Regulatory Reform (Fire Safety) Order 2005, SI 2005 No 1541, TSO.
2. The Fire (Scotland) Act 2005, asp 5, TSO.
3. Fire Safety (Scotland) Regulations 2006, Scottish SI 2006 No 456, TSO.
4. Fire and Rescue Services (Northern Ireland) Order 2006, SI 2006 No 1254 (NI9), TSO.
5. Fire Safety Regulations (Northern Ireland) 2010, SI 2010 No 325 (NI), TSO
6. Dangerous Substances and Explosive Atmospheres Regulations (DSEAR), 2002, SI 2002 No 2776, TSO.
7. *RC7 Recommendations for hot work*, 2012, FPA.
8. *Business resilience: A guide to protecting your business and its people*, 2005, FPA.
9. The ROBUST software (Resilient Business Software Toolkit) may be found at <https://robust.riscauthority.co.uk>
10. BS 5839-1: 2013: *Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises*, British Standards Institution.
11. *LPC Rules for automatic sprinkler installations incorporating BS EN 12845: (Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance, British Standards Institution)*, 2009, FPA.
12. HS(G) 107: *Maintaining portable and transportable electrical equipment*, 2004, Health and Safety Executive.
13. *Code of practice for in-service inspection and testing of electrical equipment (fourth edition)*, 2012, Institution of Engineering and Technology.
14. BB100: *Design for fire safety in schools*, 2007 RIBA Enterprises.
15. *Fire safety risk assessment: Educational premises*, 2006, Department for Communities and Local Government.

Case histories

1. An outdoor classroom and part of a sensory garden at a school for children with special educational needs have been destroyed by fire. The incident happened on Saturday evening. Police said a joint investigation with the fire and rescue service was ongoing. Staff at the school have been breaking the news to pupils, who have been planting, and learning other gardening skills, in the classroom which was set up in 2007. The classroom was completely destroyed and an eco-greenhouse, made using plastic bottles, melted. The total damage is believed to run to thousands of pounds. The garden is now covered in ash and broken glass, the equipment in the classroom has been reduced to twisted metal and everything has to be taken away to make the garden safe for the pupils to use.
2. The principal of a school which has been extensively damaged in a suspected arson attack has said 75% of the building has been destroyed. Firefighters were called to the blaze shortly after midnight when an alarm sounded and they had to use a number of specialist appliances, including two aerial pumps, to tackle the flames. Despite their efforts, the school was largely destroyed by the fire. The resources that were prepared for the children starting the new school term the following Monday were destroyed. Some of the school's 103 pupils arrived at the gates with their families on Saturday morning, and many were visibly upset by the damage to the building. There are fears for the safety of the remaining structure; police have confirmed they are treating the fire as suspicious and a specialist forensic team is examining the scene.