

## Written evidence submitted by the London Fire Brigade

### 1. Introduction

- 1.1 London Fire Brigade (LFB) is London's fire and rescue service - one of the largest firefighting and rescue organisations in the world and we are here to make London a safer city. Decisions are made either by the London Fire Commissioner (the statutory fire and rescue authority for Greater London), the Mayor of London or the Deputy Mayor for Fire and Resilience. A Fire, Resilience and Emergency Planning Committee of the London Assembly holds the Commissioner, Mayor and Deputy Mayor to account.
- 1.2 LFB responds to incidents in schools where structural integrity of school buildings has failed as well as fires.

### 2. Fire safety guidance on RAAC

- 2.1 Reinforced Autoclaved Aerated Concrete (RAAC) is a lightweight form of concrete used primarily in roof construction in the UK from the mid-1950s to the mid-1980s, although more recent examples date back to the 1990s.
- 2.2 It is believed to have been used by some municipal architects, mainly in offices and schools.
- 2.3 RAAC is mainly found in roofs and occasionally in floors and walls. RAAC is less strong than traditional concrete and there have been problems as a result that could have significant consequences. The limited durability of RAAC roofs has long been recognised.
- 2.4 The recent experience of LFB (which includes two roof failures with little or no warning) suggests the problem may be more serious than previously appreciated and that those responsible for buildings including schools, are not aware that RAAC is present in their property.
- 2.5 LFB believes this is now an emerging risk in schools due to the lifespan of the RAAC product.
- 2.6 LFB believes that schools should be checked for RAAC and that this should be assessed as part of the risk when assessing which schools are in most need of refurbishment.

### 3. AFSS in school buildings

- 3.1 Building Bulletin 100 (BB100): Design for fire safety in schools, published in 2007, and reviewed in 2014, introduced the 'expectation' that all new schools would have Automatic Fire Suppression Systems (AFSS) installed. LFB's experience is that this expectation is not being followed in practice.
- 3.2 There was a consultation for updating BB100 guidance in August 2021 but the Department of Education (DfE), which ran the consultation, is yet to publish the results or produce any outcomes from that consultation.
- 3.3 LFB continues to be concerned that the fire statistics for England show that of the 5,120 fires in schools between 2010/11 and 2019/20, only 96 of these are recorded as having sprinklers installed

– which is less than two per cent. Many schools are continuing to be built, or undergoing major refurbishment, without AFSS being included and we are concerned that the ‘expectation’ set out in BB100 that sprinkler systems are included is being consistently ignored. For example, of the 101 school fires London’s firefighters attended in 2019, just two had AFSS recorded as being present. In 2020, despite being in national lockdown for much of the year, there were 57 school fires in London, with just two premises where AFSS were recorded.

- 3.4 Schools are not immune from the issues identified in the *Independent Review of Building Regulations and Fire Safety* and there have been significant failings identified in some cases – an example from Scotland is provided below.
- 3.5 An Independent review<sup>1</sup> commissioned by the City of Edinburgh highlighted that there were critical failures in the process of construction and checking/oversight of the build phase in a number of school construction cases investigated. The report stated that in the case of the Oxfangs Primary School wall collapse, the fact that there were no children injured or indeed killed was ‘a matter of timing and luck’. While the Oxfangs case related to the structural integrity of the building, the report goes on to highlight concerns regarding the level of recorded breaches in fire stopping identified within the course of their investigation.
- 3.6 LFB believes that if a school building does not have the appropriate fire safety measures then there is a risk to children, it therefore should be considered when assessing the condition of a school building.
- 3.7 LFB recommends that AFSS are made mandatory in all new school builds and as part of any major refurbishments made.

#### **4. Impact of AFSS on the condition of schools**

- 4.1 In the event of a fire, it is probable that AFSS would protect the condition of any school buildings affected and reduce the significant impact to children’s education and the wider community.
- 4.2 The disruption caused by fire impacts on both local communities and the individual pupils. A DfE<sup>2</sup> report from 2016 states that every day a child misses school is associated with a lower attainment outcome. In July 2021 a fire broke out at a school in Lancashire<sup>3</sup> which resulted in extensive damage to three classrooms in the building and the school has effectively closed to deal with the aftermath.
- 4.3 Information taken from the Home Office Incident Recording System (IRS) for England and Wales for the four-year period from 1 January 2016 to 31 December 2019 showed that sprinkler systems were 100 per cent reliable and 100 per cent effective in extinguishing or controlling the spread of fires in schools and colleges in England and Wales. Conversely, on average, every two weeks a school, college or university without sprinklers experienced a fire resulting in significant damage.
- 4.4 This shows that AFSS provide good value for money when considering the effect it has on the community as well as the physical effect it has on school buildings.

#### **5. Recommendations**

- 5.1 LFB recommends that schools should be checked for RAAC and that this should be assessed as part of the risk when assessing which schools are in most need of refurbishment.
- 5.2 LFB recommends that AFSS are made mandatory in all new school builds and as part of any scheme of major refurbishments.

---

<sup>1</sup> [http://www.edinburgh.gov.uk/news/article/2245/independent\\_report\\_into\\_school\\_closures\\_published](http://www.edinburgh.gov.uk/news/article/2245/independent_report_into_school_closures_published)

<sup>2</sup> [The link between absence and attainment at KS2 and KS4 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/544442/the-link-between-absence-and-attainment-at-ks2-and-ks4.pdf)

<sup>3</sup> <https://www.fsatters.com/Fire-disrupts-education-at-Ormskirk-school>

5.3 LFB recommends that fire safety is part of the consideration when assessing the condition of a school building.

**July 2023**