

1st March 2019

Call for Evidence: Technical Review of Approved Document B (Fire Safety)
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Letter ref: BPA-ADB-20190301
Emailed to: ADBconsultation@communities.gov.uk

Response to Technical review of Approved Document B of the building regulations: a call for evidence

We welcome your Call for Evidence seeking views on the future technical guidance contained within Approved Document B (Fire Safety).

About the British Parking Association

We are a not for profit organisation, representing, promoting and influencing the parking and traffic management profession throughout the UK and Europe. Our membership of more than 750 organisations and individuals includes local authorities, car park operators, retail parks, healthcare facilities, universities, railway stations, technology providers, trainers and consultants.

We work with our partners to support growth for our communities, improve compliance by those managing and using parking facilities, and encourage fairness to achieve our vision of excellence in parking for all. Any surplus income arising from our work is reinvested back into activities to support our members or put into a reserve fund to ensure we can continue to raise standards and encourage professionalism.

BPA Working Group and Liverpool Echo Arena car park fire

At a meeting of our Association's Parking Structures Interest Group in December 2017, concerns were raised around a general lack of understanding on the topic of fire risk in car parks and subsequently, a dedicated Working Group was formed to further explore the issue.

On New Year's Eve 2018 a significant fire broke out at the Liverpool Echo Arena multi-storey car park. The power and behaviour of the fire took many by surprise; for example, how the fire spread internally (particularly vertically) through the car park and also how difficult it was to bring the fire under control.

The Working Group met for the first time in March 2018, deciding that insufficient research and testing had been conducted to form an up to date and relevant view on the risks associated with fire in a multi-storey or underground car park. It concluded that further research was necessary to establish the current position regarding the regulations and guidance to which car park buildings are being designed (including Approved Document B).

The BPA, through our Parking Structures Group, led by its Chair Russell Simmons, commissioned OFR Consultants to provide a review of various UK and international codes in relation to the fire safety design of car parks, and to identify research that has been used to underpin the codes, as well as other relevant research that is directly applicable to car parks. A copy of the report is included with this submission.

As a result of our research and following further discussion between industry experts regarding its content, we would like to make the following conclusions:

1. The suitability and appropriateness of a 15 minute fire-rated structural frame is in doubt given the fact that car parks can be complex buildings and built in a variety of situations (including adjacent to or as part of other buildings), and that the effectiveness of the level of ventilation required to enable 15 minutes to be deemed as appropriate (ADB) is unknown. **Please refer to our response in Annex A: ADB area/Scope of fire safety**
2. The required level of ventilation and the associated fire rating appear to have adjusted over the years and at the current time, the figures do not seem to be based on relevant and up to date information. It is particularly noteworthy that the UK appears to be fairly unique in supporting construction of open-sided car parks from unprotected steel with most jurisdictions adopting 30 or 60 minutes. The risk and likelihood of fire spread in car parks requires reviewing, as it appears that current recommendations (ADB) are based on the load being low and the chance of vertical spread in particular also being low. However, this was clearly not the case at the Liverpool Echo Arena fire as referenced in the report by the Standing Committee on Structural Safety (SCOSS), despite the fact that the building had a fire rating in excess of 15 minutes, i.e. greater than the minimum actually required. **Please refer to our response in Annex A: ADB area /Scope of fire safety and; Access and facilities for the fire rescue service**
3. Current standards and codes do not appear to take into account the changes in fire loading as a result of changes in vehicle design or methods of fuel or power such as diesel and electrical). Behavioural changes by the general public must also be considered, such as the risk that people choose to record the event on their mobile phones before reporting a fire thus causing delays. **Please refer to our response in Annex A/Requirement B3: Internal fire spread (structure)/Other issues**
4. The effectiveness of fire suppression systems (such as sprinklers) is not yet sufficiently analysed in terms of a cost vs risk benefit. **Please refer to our response in Annex A/Requirement B3: Internal fire spread (structure)/Sprinklers and other Fire Suppression systems**

Recommendations

Our main recommendation is made on the basis that further research is needed. The findings of our initial research and the shared opinion of many experts working in the field is that there is insufficient data in an appropriate context to set an informed standard. This research must provide sufficient evidence to determine whether adjustments to ADB (in the context of car park structures) are required.

We are pleased that the Secretary of State's is committed to conducting a full-scale review of the guidelines commencing in the autumn and look forward to a further statement in due course. In the meantime we remain at your disposal to assist in any way we can.

Further information about the work of our Association can be found at britishparking.co.uk.

Yours faithfully



Kelvin Reynolds
Director of Corporate and Public Affairs