HOUSES OF PARLIAMENT
RESTORATION AND RENEWAL

Protection from Fire | Factsheet

The Palace of Westminster is one of the most iconic and significant buildings in the world. It is home to one of the busiest parliaments, with more than a million people, including 100,000 schoolchildren, passing through its doors each year.

In 1834, fire destroyed most of the old medieval Palace, when wood being burned in a solid fuel boiler caused fire to spread, to devastating effect.

Given the fate of the old palace, its replacement was designed by architect Charles Barry with fire-proofing in mind. The main structural materials were stone and cast-iron to counter the risk from numerous smoke flues. However, a great deal of combustible material was used for the interior decoration and the building's complex network of ventilation shafts and floor voids unintentionally created conditions for fire and smoke to spread through the building.

The condition of fire safety systems in the Palace was reviewed by independent consultants during 2007-09, who confirmed that the coverage of automatic fire detection and voice alarm systems was incomplete and that the infrastructure was in need of upgrade, without which the already high level of alarm system failures could be expected to increase. Consequently, a fire safety improvement programme has been established to implement the necessary upgrades, albeit over many years, around sittings of Parliament.

Another major cause of concern is the lack of effective compartmentation between sections of the Palace, as found in modern buildings. Compartmentation slows the spread of fire through a building, providing time for occupants, including disabled occupants, to be safely evacuated and for the London Fire Brigade to get fire fighters and specialist equipment on site.

Compartmentation needs to progress beyond the current 65% implementation. It is, however, extremely invasive work – in many cases requiring the removal and reinstatement of interior walls and wood panelling that contribute towards the Palace's Grade I-listed and World Heritage Site status.

Much has been done to improve fire safety standards by providing effective fire alarms, means of escape and monitoring procedures as well as efficient fire and smoke prevention.

The Palace is safe for users and visitors because fire protection and prevention teams remain vigilant and the improvement programme and appropriate measures are in place to reduce the risk of fire as far as possible. However, much more needs to be done to ensure the building's fabric and its historic interiors are better safeguarded against another major fire.

Key Facts

- 6,969 fire detection devices including 2,584 smoke detectors
- 810 manual call points
- 1,500 fire extinguishers – 900 AFFF (foam) extinguishers and 600 CO^2 extinguishers
- Last open coal fire disappeared in 1956

Main image: Fire 1834 view from Lambeth shore of Palace of Westminster by David Hall McKewan WOA 273 © UK Parliament

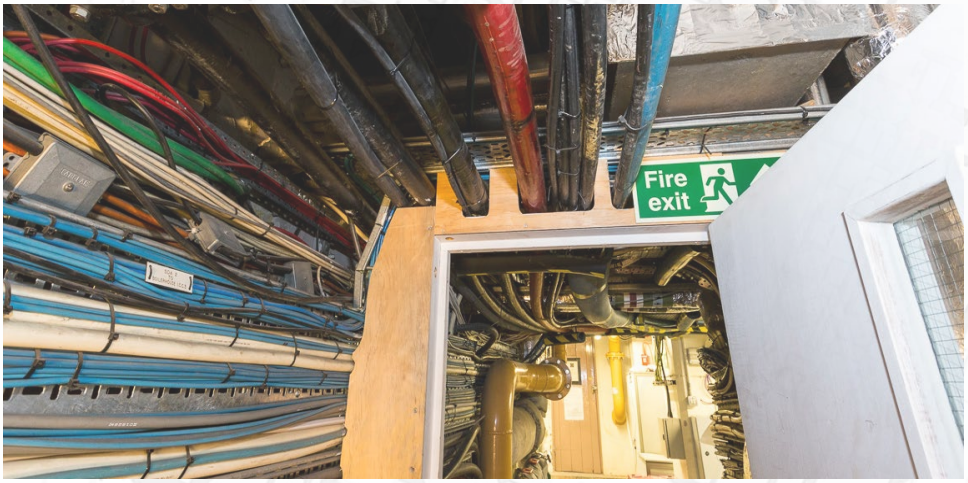

Image above: A fire exit in the basement of the Palace of Westminster © House of Lords 2016 / Roger Harris