

This report is the third in a series that will provide a detailed analysis of compound data¹ on fire incidents in Great Britain where sprinklers systems were reported for the period of 2018/19 to 2020/21.

The aim of the analysis is to focus on identifying trends, discussion points and insights relating to the use of sprinklers within Great Britain. The outcome of which will evidence that can be used to influence change making the installation of sprinklers the norm not the exception.

INCIDENT DATA
REPORT ...
FOCUS ON
SPRINKLERS

British Automatic Fire Sprinkler Association

bafsa

In the previous report it was identified that.

- Refuse store as the fire start location recorded the highest number of incidents where sprinklers are recorded as being present, in purpose-built blocks of flats.
- What cannot be defined by the data is whether the installation of sprinklers within buildings is limited to these refuse stores alone or extended to the occupied flat areas.
- Inside the flats, the kitchen as a fire start location accounted for the highest number of incidents where sprinklers were recorded as having been involved and activated.

This report will focus on sprinkler impact where sprinklers have activated inside/outside the flats in the following building types: -

- Purpose built flats low rise, 1-3 storeys
- Purpose built medium high rise, 4-9 storeys
- Purpose built flats high rise 10 or more storeys

FIRE START	FIRE START LOCATION	EXTINGUISHED	CONTAINED/ CONTROLLED	DID NOT CONTAIN/ CONTROLLED	NOT KNOWN	ACTIVATIONS
Inside the flats	Kitchen	31	7	1	1	40
	Living Room	6	2	0	1	9
	Bedroom/Bedsitting Room	3	3	0	1	7
	Grand total	40	12	1	3	56
Outside the flats	Refuse Store	53	63	7	0	123
	Corridor/ Hall/ Open Plan Area/ Reception Area	2	0	0	0	2
	External fittings and structures	1	2	2	0	5
	Under stairs (enclosed, storage area)	1	0	0	0	1
	Other	6	4	0	0	10
	Grand total	63	69	9	0	141

Table 1. Breakdown, impact of sprinklers following activation

1. Source: FOI Requests for Incident Recording System Data relating to primary fires attended by FRSs in which sprinklers were present for England, Scotland, and Wales for the financial years 2018/19 to 2020/21

2.0 COMMENTS/OBSERVATIONS

- The incident recording system includes fields which are important to identify the impact following the activation of sprinklers in the analysis of sprinkler fires.

Did the sprinklers; -

- i. Extinguish the fire
- ii. Contain/control the fire
- iii. Did not contain/control the fire
- iv. Not known

- From the 56 sprinkler activations within the flats, kitchen fires accounted for the highest number of incidents with 40. In kitchen fires sprinklers extinguished 31(77%) incidents with sprinklers containing or controlling the fire in a further 7 incidents (18%).

- The fact that incidents inside flats is led by fires starting in the kitchen is not surprising but the numbers perhaps demonstrate a low use of sprinklers in such buildings to date. During the same time period 57% of incidents recorded in England for all fires in purpose built flats had a reported start location of the kitchen area.

- From the 141 sprinkler activations outside the flats, refuse fires accounted for the highest number of incidents with 123. In refuse store fires sprinklers extinguished 53(43%) incidents with a further 63(51%) incidents being contained or controlled.

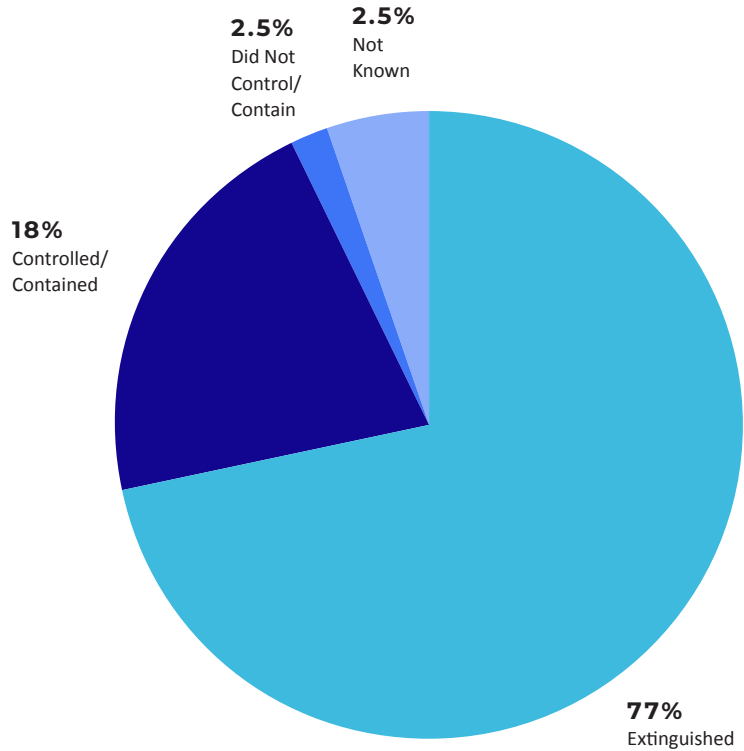
- Although it is interesting to note that 4% of fire incidents in England were recorded for all fires in purpose built flats, during the same time period, have a reported start location of the refuse store area. This may be indicative of sprinklers being placed in these areas only.

- Only 3 sprinkler activations were reported outside the flats within the corridor/hall/open plan reception or under stairs areas. All three incidents were noted to be extinguished by the sprinklers.

- During the same time period 8% of fire incidents in purpose built flats in England, had a reported start location outside of the flats in these areas. The direction in English guidance is that sprinklers are only needed within the individual flats and not in the common areas such as corridors or landings when these are fire sterile.

- The number of fire sprinkler heads activated follows this fire incident data report.

Kitchen Activations Inside the flat



Refuse fires Outside the flat

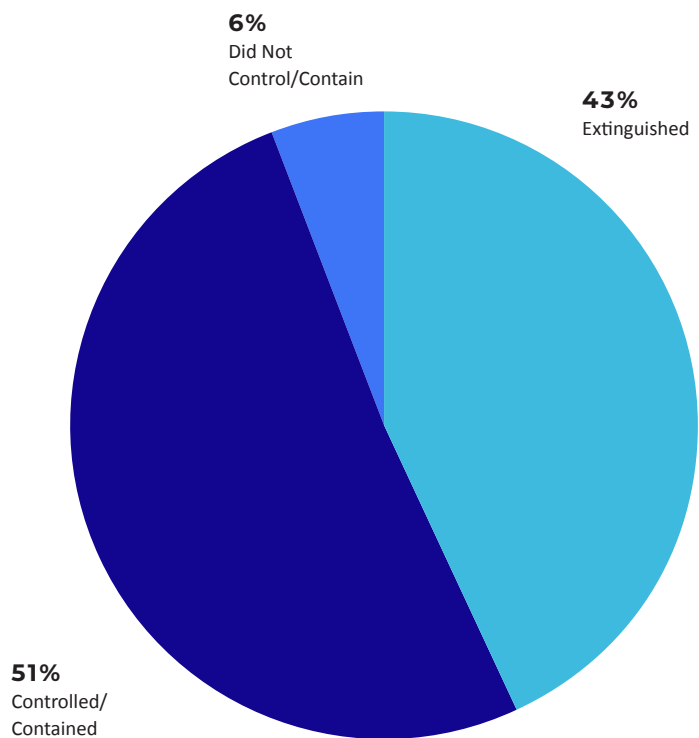


Table 2. Overview, impact of sprinklers following activation