



LONDON FIRE BRIGADE

# Reducing the Risk of Fire Through Telecare Commissioning Standards

London Fire Brigade

# Sheltered Accommodation

Irene - Surrey Coroner's Court 9<sup>th</sup> May 2014  
– HM Coroner Richard Travers highlighted the delay in the monitoring centre passing information to the Fire & Rescue Service. In addition there was a delay in the monitoring centre being alerted to the fire due to the fire detection coverage within the flat being limited.

# Independent living – hospital release

James: Age 71, COPD (lung disorder) and a Heart condition, heavy smoker. Living alone and had been released from hospital 2 days prior to fire, Care package. Smoke alarms – no monitoring.

# Supported Independent Living

James: Age 90, Alzheimer's, arthritis of the spine and prostate cancer, bedridden and lives in one room of the house, hospital care bed with an air support mattress, care package, four visits a day, Smoke detection, Telecare delay.

# Supported Independent Living

Corinna - Age 81, smoker – our own review expressed concerns at the fire detection coverage delaying the call to the monitoring centre and that the guidance given to Corinna by the call centre staff. In addition the monitoring centre failed to pass critical information on the fire and the location of Corinna to the Fire & Rescue Service and gave inappropriate fire survival advice.

# 'Extra care' Sheltered Accommodation

Michael: Age 57, wheelchair, MS, smoker, scorch marks to clothing, floor and furniture, moved into extra care following family concerns over his ability to look after himself at home, four care visits a day from on site staff, door left unlocked for staff to respond to him, history of LAS attendance for falls.

# Recommendation from SFSO

LFB FSR should find that the premises fire risk assessment was not suitable and sufficient as it did not consider the fire hazard associated with the resident's smoking habit in combination with behaviours which led to a high likelihood that a fire would start and the consequences of the fire would be death or serious injury to the resident or other relevant person in the premises. Appropriate control measures for the risk were not put in place either as an individual plan or as part of the premises fire risk assessment. Additional smoke detection, automatic suppression systems or management of fire retardant materials were not considered.

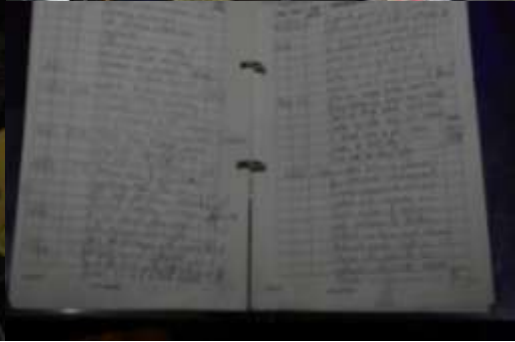
# Supported Independent Living

Mr Smith: Age 63, hospital bed with air flow mattress, wheelchair, MS, smoker, care notes cigarette burn to shoulder, previous fire (candle), four care visits a day, medication.











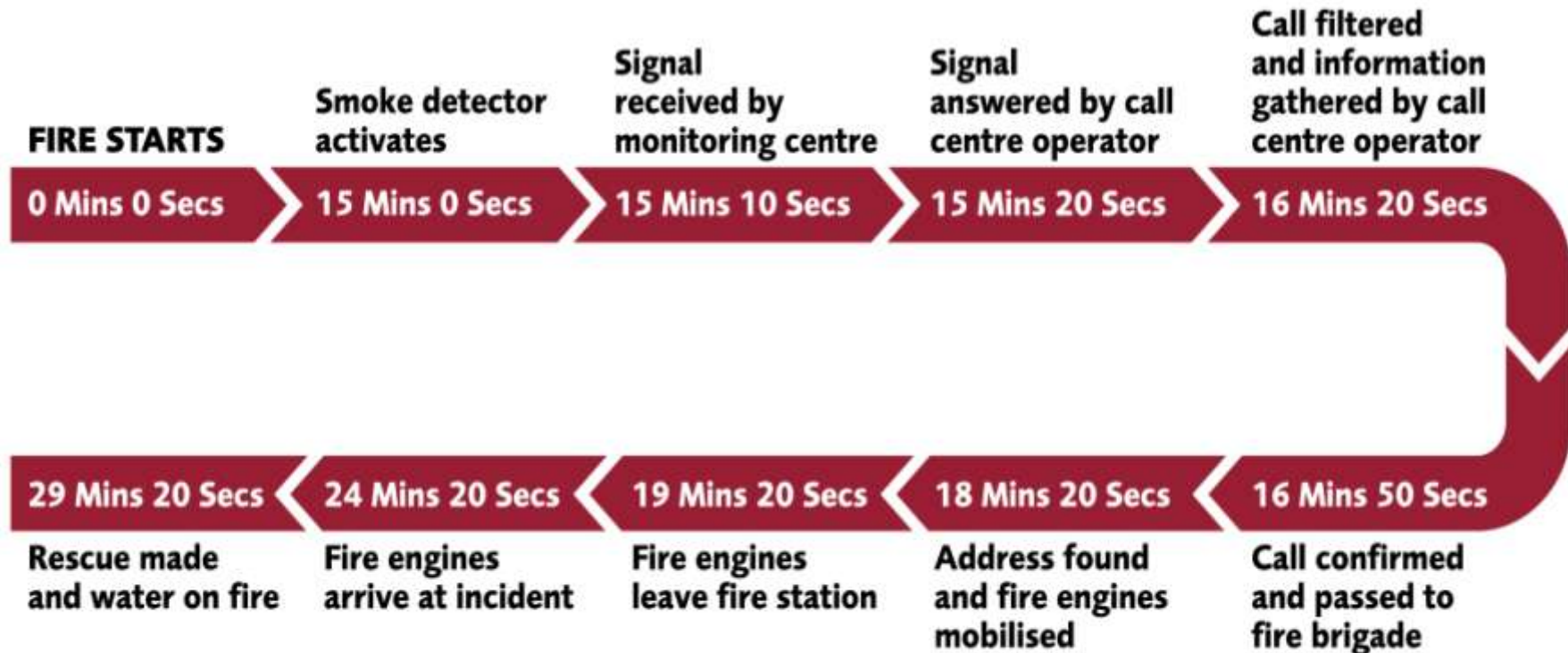


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## Aims :

- To improve Prevention and Protection from fire for the vulnerable person.
- To ensure early detection of fire in the room of origin.
- To ensure reliable communication between the fire alarm system and the monitoring centre.
- To improve the interface between the Remote Monitoring Centre and LFB.
- To ensure that a person trapped by fire receives Fire Survival Guidance

# Time Line:



# Front Room Fire



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# What has changed in BS5839 Part 6 ?

## Scope

This part of BS 5839 gives recommendations for the planning, design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises that are:

..... **c) sheltered housing, including both the dwelling units and the common areas.**

The recommendations apply to both **new and existing** domestic premises. The recommendations of this part of BS 5839 may also be applied to the **fire detection components of combined domestic fire alarm systems or fire and social alarm systems.**





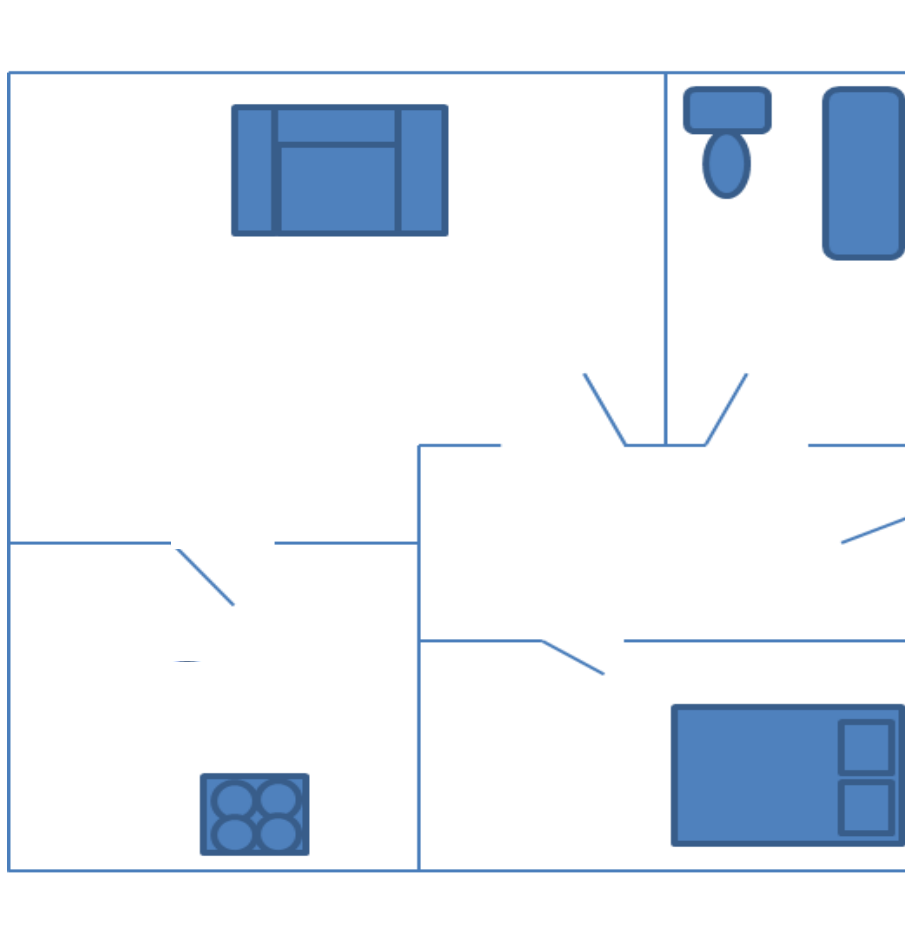
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## What has changed in BS5839 Part 6 ?

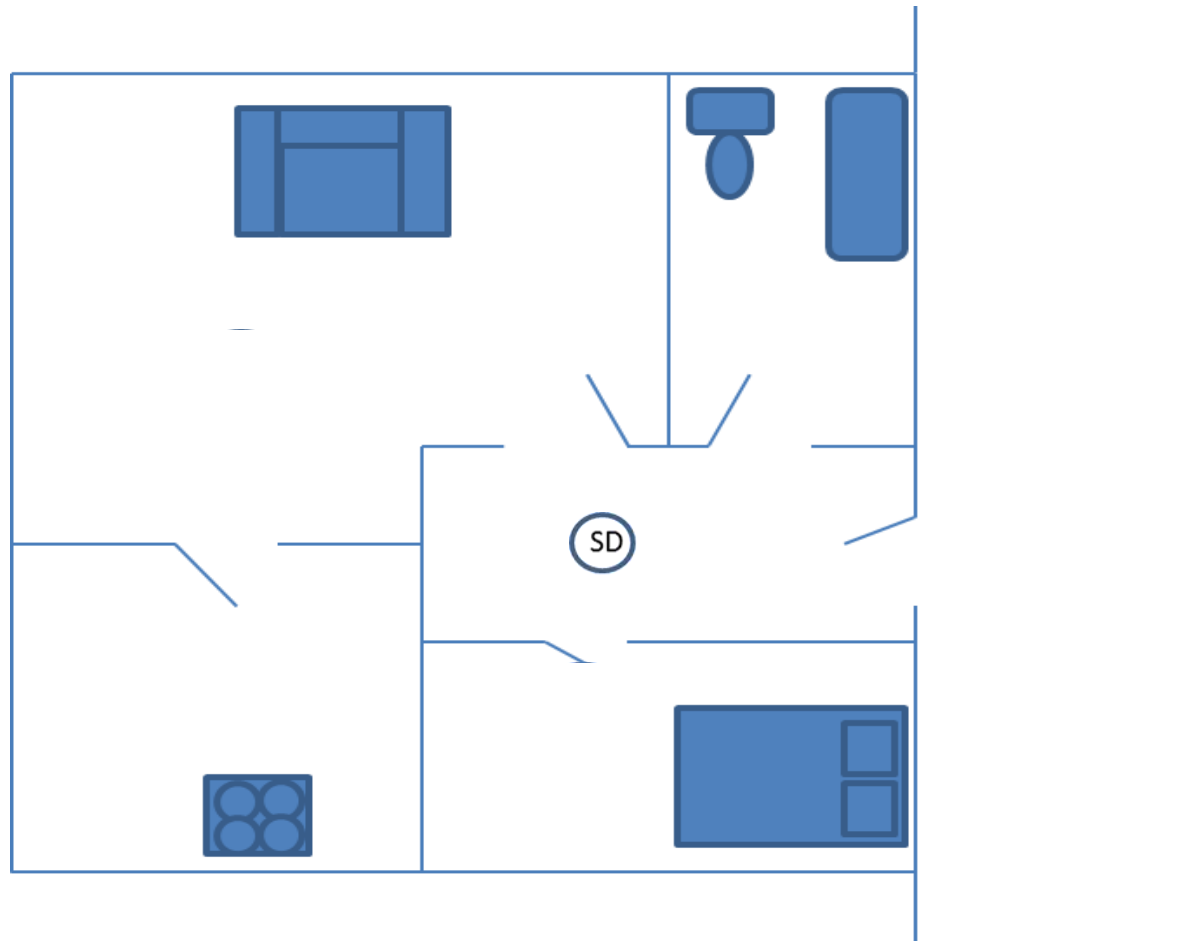
- If a Grade F system is installed by a professional installer (e.g. an electrical contractor), **a certificate confirming compliance of the system with this standard, or identifying any variations from these recommendations should be issued to the user.**
- The level of protection afforded to occupants needs to be related to the fire risk:  
Category LD2: a system incorporating detectors in all circulation spaces that form part of the **escape routes from the premises, and in all specified rooms or areas that present a high fire risk to occupants.**

# Independent Living or Single Private Accommodation

- 35 Yrs Old
- Non- Smoker
- Able bodied

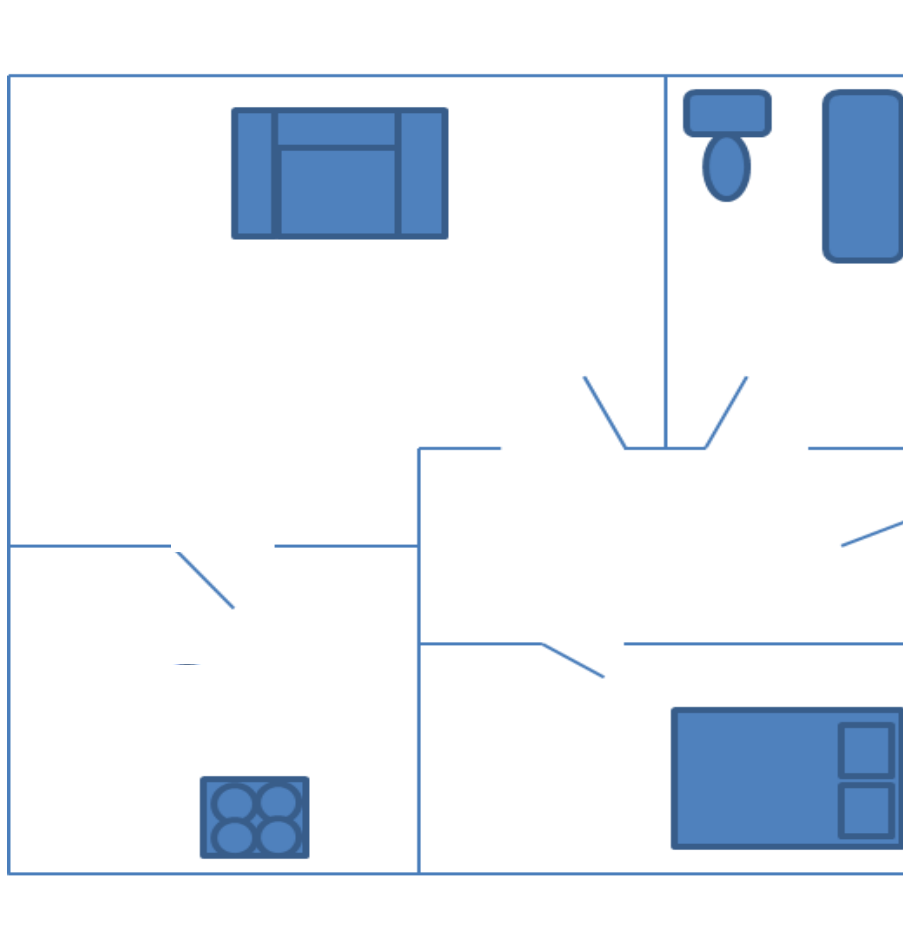


# Independent Living or Single Private Accommodation (BS5839 Part 6 Grade ? LD3)

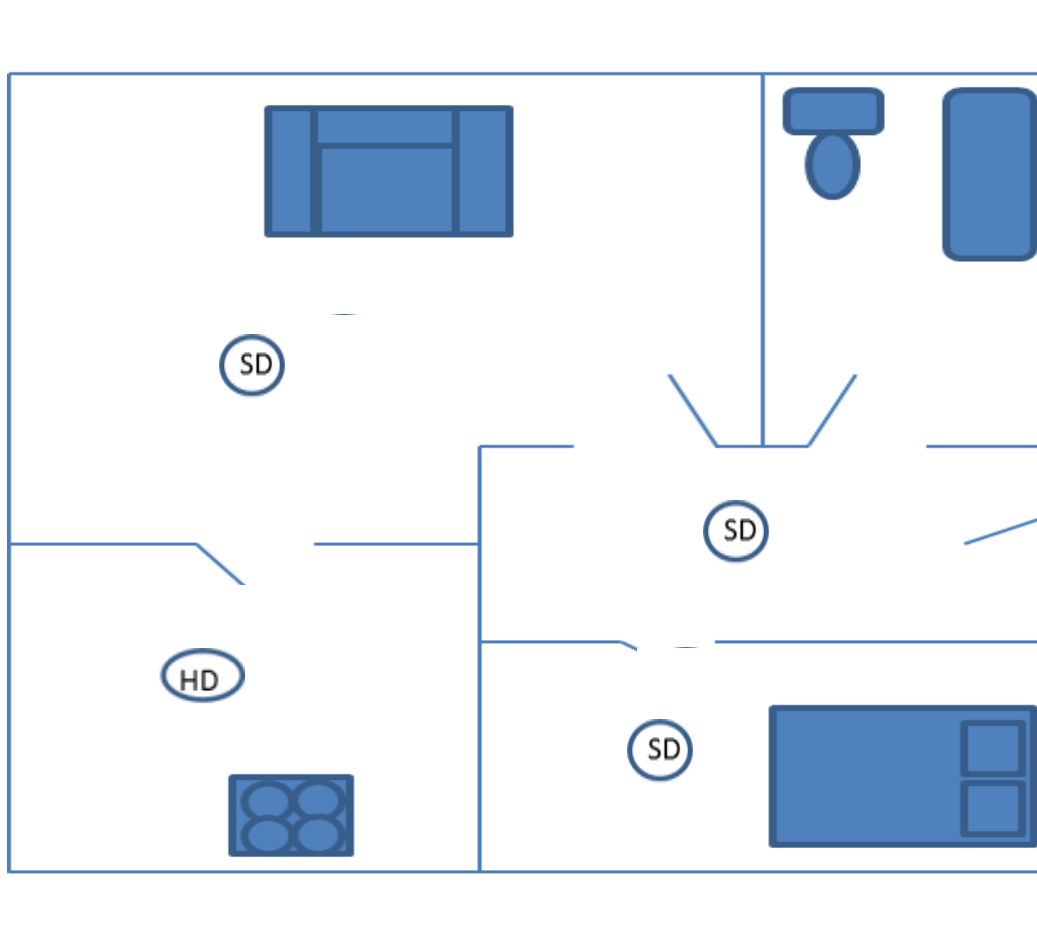


# Supported Independent Living or Sheltered Accommodation

- 76 Yrs Old
- Smoker
- Hearing Impaired



# Supported Independent Living or Sheltered Accommodation BS5839 Grade ? LD2 / 1





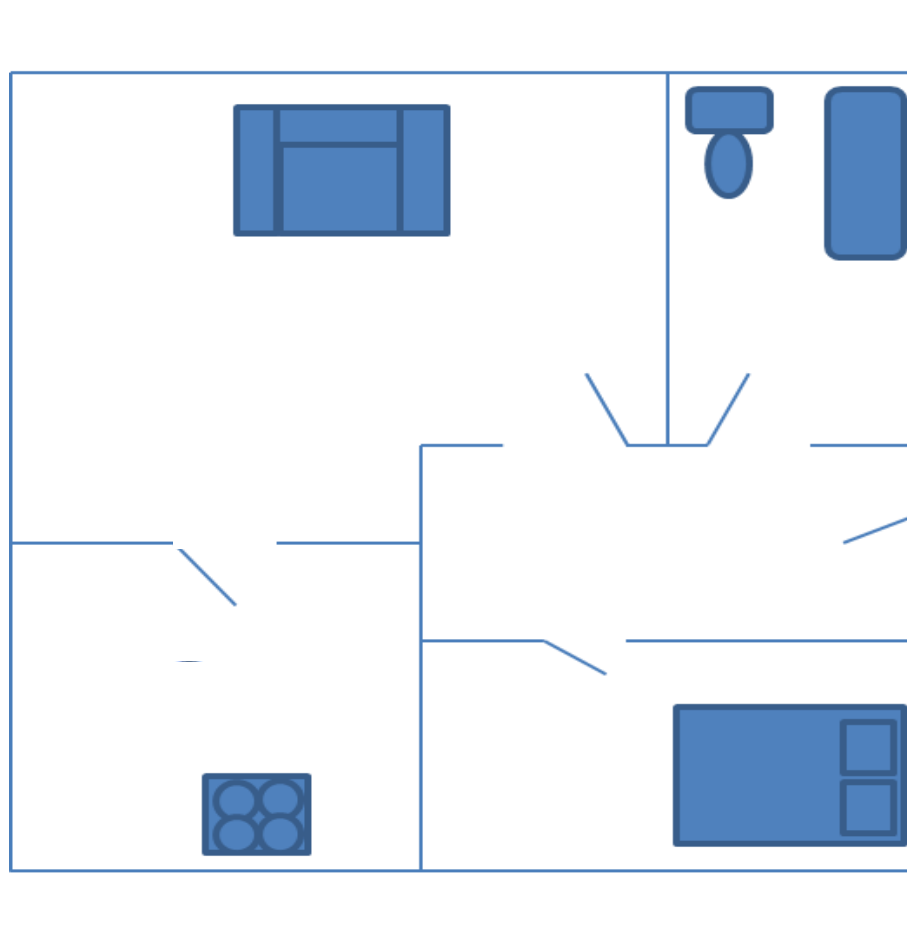
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## What has changed in BS5839 Part 6 ?

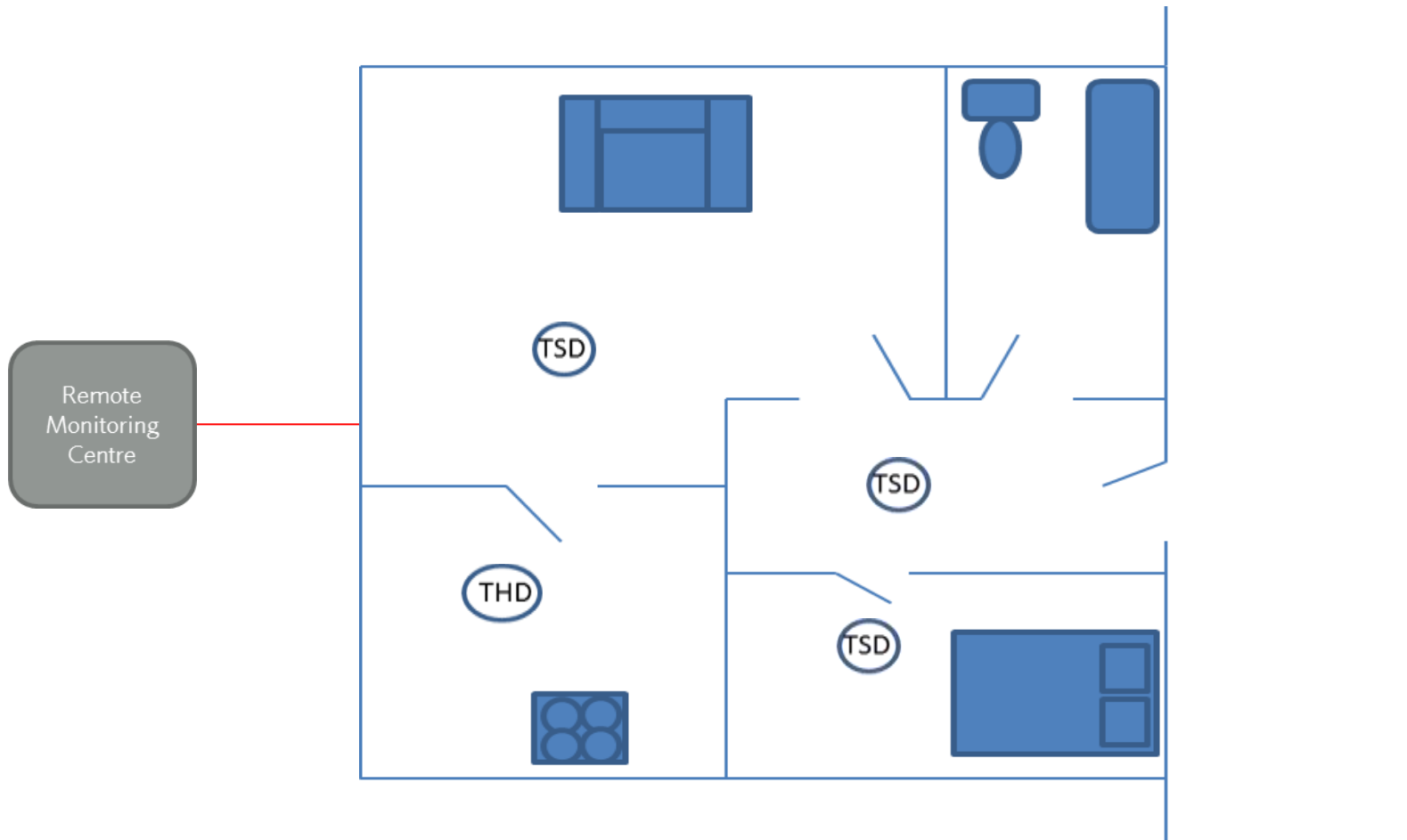
- .....all smoke alarms and heat alarms (if provided) in Grades D, E and F systems **should be interlinked**, such that, when fire is detected by any smoke alarm or heat alarm, an audible fire alarm warning is given by all smoke alarms and heat alarms (if provided) in the premises.

# Supported Independent Living or Sheltered Accommodation

- 76 Yrs Old
- Smoker
- Hearing Impaired
- Mobility Impaired
- Dementia



# Supported Independent Living Sheltered Accommodation (BS5839 Part 6 Grade ? LD2)







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## What has changed in BS5839 Part 6 ?

- If the risk to occupants from fire in any part of the premises is deemed to be high, a Category LD2 or Category LD1 system is always appropriate. For example, a Category LD2 or Category LD1 system needs to be considered if the occupants suffer from **any disability (mental or physical) that could delay their escape from fire**. If it is intended to protect reliably any occupant in the room where a fire originates, a suitable Category LD2, or a Category LD1, system needs to be provided.



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## What has changed in BS5839 Part 6 ?

- **Addressable fire detection and fire alarm systems are recommended for sheltered housing** in which detectors within dwellings are connected to the fire alarm system in the common parts.
- In Category LD systems, provision of **facilities for automatic transmission of fire alarm signals to the fire and rescue service** should be considered under the following circumstances:
  - i) if the occupants are **mobility impaired** to a degree that would be likely to result in high risk in the event of fire; or
  - ii) if the occupants suffer from a **disability (e.g. speech impairment)** that would preclude communication by telephone with the fire and rescue service.

# Prevention Through Risk Assessment:

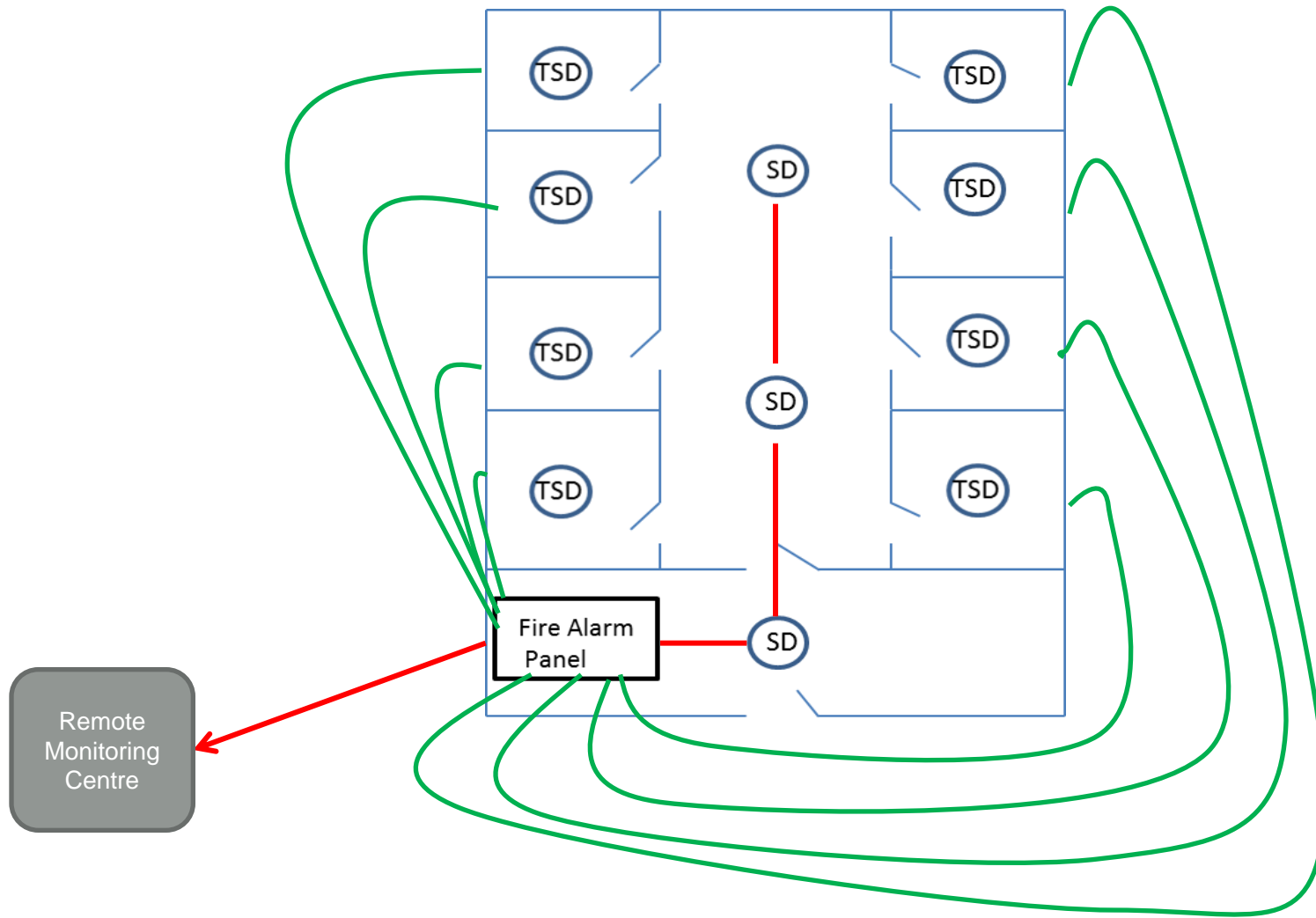
## Home Fire Safety Risk Referral Matrix



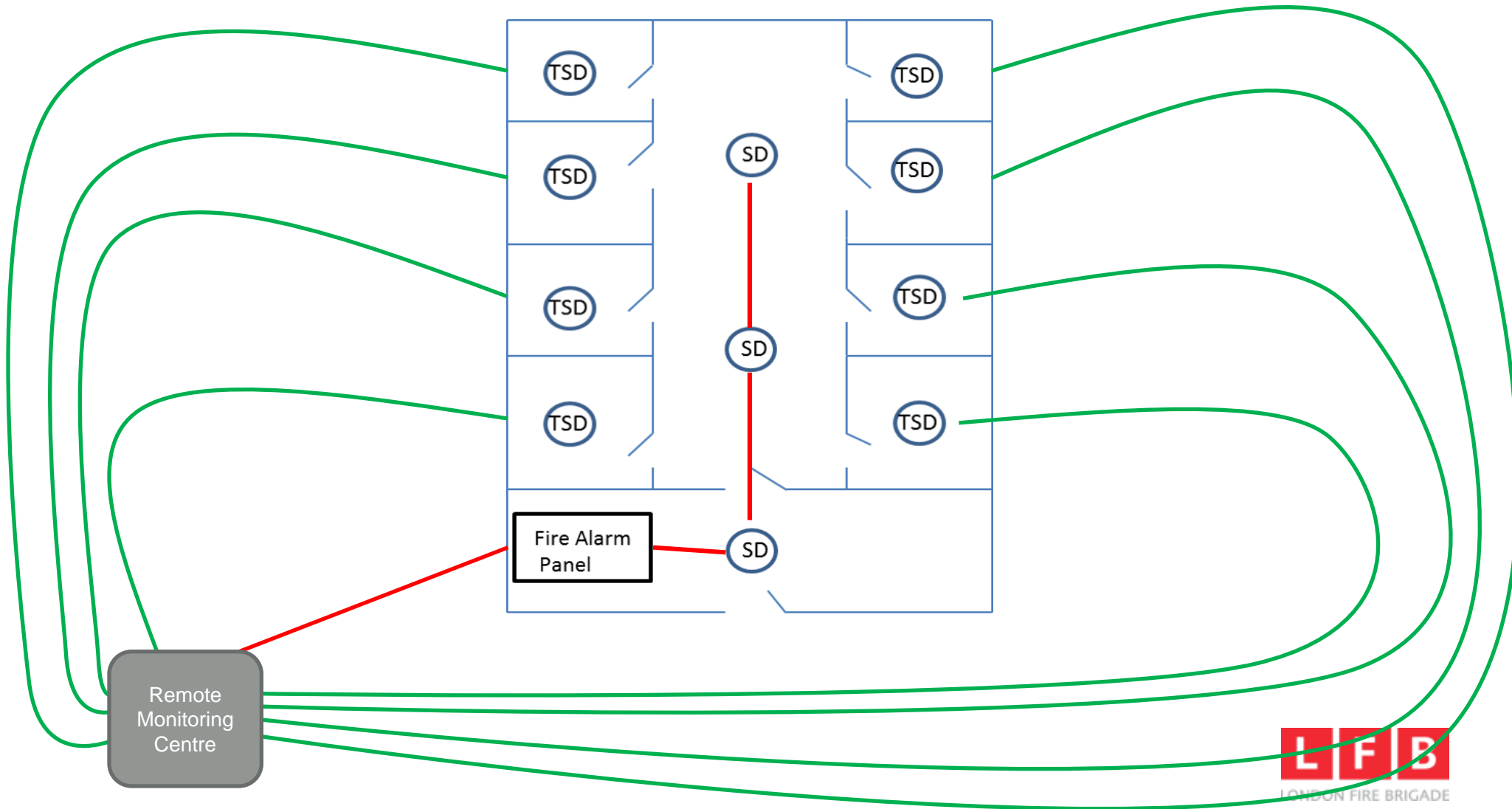
| Risk                 | Fire risk factors   | Control measures to be taken by LFB crews to mitigate immediate risk  | Actions for consideration by Care Providers to mitigate medium and long term risk   |
|----------------------|---|---|---|
| <b>High Risk A</b>   | <p>As in High Risk B.</p> <ul style="list-style-type: none"> <li>• Adult social care review outcome is to move resident to care home or warden assisted sheltered accommodation due to severity of fire risk.</li> <li>• Resident refuses to be re-housed.</li> </ul>   | <ul style="list-style-type: none"> <li>• Full HFSV.</li> <li>• Fit single point smoke detection in escape route (hall) and areas of risk.</li> <li>• Refer to LA via Serious Outstanding Risk (SOR) process for case management and provision of specialist fire alarms/equipment.</li> <li>• Consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul> | <ul style="list-style-type: none"> <li>• Consider fitting domestic Automatic Fire Suppression System (AFSS) e.g. sprinklers.</li> <li>• Minimum of BS5839 part 6 Grade F LD2 fire detection and alarm system, interlinked.</li> <li>• Fire alarm to be monitored by a Telecare (social alarm) monitoring centre.</li> <li>• Consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul>                                 |
| <b>High Risk B</b>   | <ul style="list-style-type: none"> <li>• Inability of resident to react to fire or smoke alarm actuating due to mobility difficulties or decision making difficulties, Dementia, hoarding (level 5 or above).</li> <li>• Signs of high fire risk such as careless disposal of cigarettes, signs of cooking being left on or other high risk of fire.</li> </ul> | <ul style="list-style-type: none"> <li>• Full HFSV.</li> <li>• Fit single point smoke detection in escape route (hall) and areas of risk.</li> <li>• Refer to LA via Serious Outstanding Risk process (SOR) for case management and provision of specialist fire alarms/equipment.</li> <li>• Consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul> | <ul style="list-style-type: none"> <li>• Consider fitting domestic Automatic Fire Suppression System (AFSS) e.g. sprinklers.</li> <li>• Care/housing review.</li> <li>• Minimum of BS5839 part 6 Grade F LD2 fire detection and alarm system, interlinked.</li> <li>• Fire alarm to be monitored by a Telecare (social alarm) monitoring centre.</li> <li>• Consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul> |
| <b>Medium Risk A</b> | <ul style="list-style-type: none"> <li>• Medium to high fire risk and evidence of fire risk behaviours such as careless disposal of cigarettes, signs of cooking being left on or other high risk of fire but resident is able to respond to fire alarm and leave the premises.</li> </ul>  | <ul style="list-style-type: none"> <li>• Full HFSV.</li> <li>• Fit single point smoke detection in escape route (hall) and areas of risk.</li> <li>• Refer to LA via Serious Outstanding Risk process (SOR) for case management and provision of specialist fire alarms/equipment and consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul>         | <ul style="list-style-type: none"> <li>• Minimum BS5839 part 6 Grade F LD2 fire detection and alarm system including smoke and heat detection, interlinked.</li> <li>• Consider other control measures such as fire retardant bedding and safer ashtrays.</li> </ul>  |

Above this black line – refer as Serious Outstanding Risk.

# Sheltered Accommodation



# Sheltered Accommodation





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## What has changed in BS5839 Part 6 ?

- If the fire detection and fire alarm system is integrated with the social alarm system (or any other alarm system, such as an intruder alarm system), and both systems share a single communications link to an alarm receiving centre, it is important to ensure that **fire alarm signals can be distinguished from other alarm signals** at the ARC.
- If automatic transmission of fire signals to the fire and rescue service is essential, the reliability of the transmission system needs to be subject to consideration.



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## What has changed in BS5839 Part 6 ?

- In sheltered housing, fire alarm signals transmitted to an alarm receiving centre via a social alarm system **cannot be delayed by other alarm signals originating from the premises of fire origin or elsewhere.**
- In the case of sheltered housing, fire alarm signals from dwelling units should, at any site monitoring facility provided for use by a warden or any ARC, **be clearly distinguishable from other alarm signals** that can be relayed from the dwellings, and distinguishable from alarm signals from any other dwelling units.



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# Monitoring Fire Alarms BS 8591

Category I: remote centre handling signals from the following:

- fire alarm systems
- social alarm systems





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## Monitoring Fire Alarms BS 8591

- The ARC should have a minimum of two means of incoming communication for voice and sufficient capacity to cope with peak alarm demand.
- There should be at least two independent means for outgoing voice communication, which should be dedicated to alarm communications and configured for outgoing calls only.
- There should be sufficient communication capacity to enable all operators to make outgoing calls in respect of alarm signals without disconnecting the alarm call requiring that assistance.



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## Monitoring Fire Alarms BS 8591

- There should be a minimum of two operators in an ARC at all times, capable of carrying out all operations procedures, at least one of whom should be at their work station at all times.
- Staffing levels should be related to maintenance of the response times given in BS8591



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## Monitoring Fire Alarms BS 8591

- **Fire alarm signals should be given priority** and should be clearly distinguishable from other alarm indications at least by visual means.
- If the fire detection and fire alarm system is integrated with the social alarm system (or any other alarm system) and both systems share a single communications link to an ARC, **fire alarm signals should be distinguishable from other alarm signals at the ARC.**



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## Monitoring Fire Alarms BS 8591

- Where the operator has the opportunity to verify the call through two-way speech this should be done prior to contacting the F&RS. If a fire is confirmed, the F&RS should be contacted immediately. The line to the occupant and the F&RS should be kept open until the call is closed by the arrival of fire crews on the scene or at the request of the fire service control officer.



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## Monitoring Fire Alarms BS 8591

~~Fire survival guidance should be given to the~~ occupant if the occupant is trapped by fire as appropriate. Any further information gained such as the exact location and condition of the occupant, other persons involved and the exact location and cause of the fire should be transferred to the F&RS.

NOTE 1 It might be advantageous to include a second operator to speak to the occupant or F&RS.



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# Fire Survival Guidance



Competence in Telecare Monitoring (BS 8591)

# Call information required by the LFB



1. The address first– most important, need to mobilise resources.
2. Type of property, e.g. care home, flats.
3. Is the call from a signal, or are you speaking to a person.
4. If speaking to a person, where are they located, e.g. in a residence or common part of the building.
5. Whether the occupier has been contacted – this may influence the attendance dispatched by the LFB.

# Aim of FSG

The purpose of fire survival guidance (FSG) is to advise callers who are trapped as a result of fire on the action to take that will provide them with the best chance of survival.

## Objectives

- 1.To identify callers that need FSG.
- 2.Transfer the call to the London Fire Brigade, or
- 3.To gain and assess information, then provide appropriate, accurate guidance.





# FSG Principles

1. Escape
2. Assess (and re-assess)
3. Protect
4. Rescue

# Caller can escape

- ✓ If the caller is inside and can escape to safety, advise to **“Get out and stay out”**
- ✓ Pass call to LFB



Different advice for purpose  
built flats / maisonettes

# Caller can't escape...

1. Why not? Is there an alternative means of escape?
2. Pass call to LFB and inform 'person involved'.
3. Inform a supervisor /colleague?
4. Tell caller that you need to ask more questions to keep safe.



# Pass updates to LFB

1. Record essential information
2. Always maintain effective communication with the LFB
3. Keep LFB informed of developments e.g. location of persons trapped – will be essential throughout the call to aid rescue



**UPDATES**

## Purpose Built Flats and maisonettes



- If the fire is **NOT** in the caller's flat and they are **NOT** affected by **HEAT** or **SMOKE** it is usually safer to remain in their flat
- If they **ARE** being affected they should get out
- If they remain in their flat and their situation changes they should **GET OUT AND STAY OUT**
- If they cannot get out **RING THE FIRE BRIGADE**

# In Summary

- To improve Prevention and Protection from fire for the vulnerable person.
  - We need to ensure the initial assessments and reviews of assessment are include the assessment and control fire risk
- To ensure early detection of fire in the room of origin.
  - We need to ensure that all vulnerable people with medium to high fire risks have Grade F LD2 fire detection and where they cannot respond to a fire or fire alarm they need to be remotely monitored.

# In Summary

- **To ensure reliable communication between the fire alarm system and the monitoring centre.**
  - The critical communication path should be part of the premises and individual fire risk assessment
- **To improve the interface between the Remote Monitoring Centre and LFB.**
  - Monitoring centres should adopt the best practice in BS 8591 and have agreed the correct protocol in the form of an MOU to pass calls to London Fire Brigade
- **To ensure that a person trapped by fire receives Fire Survival Guidance**
  - Monitoring centre staff should be trained in giving Fire Survival Guidance or have the technical ability to pass the call to the LFB so that FSG can be given by LFB control officers

# Contact Information

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