NHS National Services Scotland

NHSScotland Firecode -

Fire detection and alarm systems

Scottish Health Technical Memorandum 82

SHTM 82

Version 5 - September 2025.

Contents

1. Introduction

1.1. The provision of automatic means for detecting a fire and raising the alarm is vital in healthcare premises to alert occupants and ensure the maximum evacuation time from the earliest stage of fire development.

1.2. An important aspect of fire detection and alarm systems is ensuring they do not cause unnecessary disruption from unwanted fire alarm signals (UFAS). Section 14 provides guidance on the reduction of UFAS.

Note 1: Scottish Health Technical Memorandum (SHTM) 82 has been retitled as 'Fire detection and alarm systems' and now includes guidance on the reduction of unwanted fire alarm signals.

Legislation

1.3. Legislation relevant to the requirement for, and maintenance of, fire detection and alarm systems includes the following:

- The Building (Scotland) Act and Regulations
- The Fire (Scotland) Act and Regulations
- The Health and Safety at Work Act and Regulations
- The Construction (Design and Management) Regulations
- The Equality Act

1.4. The Fire (Scotland) Act 2005 sets out a legislative requirement that 'those in control of premises, to any extent, have a responsibility to ensure the safety of occupants from harm caused by fire'.

1.5. The Fire Safety (Scotland) Regulations 2006 (Regulation 12) specifies that duty holders must ensure 'relevant premises have the appropriate means for giving warning in the event of fire'.

1.6. Failure to comply with the provisions of fire safety legislation can constitute a criminal offence.

2. Scope of SHTM 82

2.1. NHS boards must ensure that all premises have an appropriate means for detecting a fire and alerting occupants. To achieve this, NHS boards should adhere to the guidance contained in this document.

2.2. British Standard (BS) 5839: Fire detection and fire alarm systems for buildings Part 1, is a code of practice for the design, installation, commissioning, and maintenance of fire alarm systems in non-domestic premises.

2.3. Scottish Health Technical Memorandum (SHTM) 82 contains supplementary guidance and emphasises key information from BS 5839.

2.4. Both SHTM 82 and BS 5839-1 should be followed when planning, designing, installing, commissioning, maintaining, and testing fire detection and alarm systems.

2.5. Where it is proposed to adopt a methodology that varies from SHTM 82 or BS 5839-1, it should be evidenced that the variation meets or exceeds the benchmark standards.

2.6. Any variations should be fully justified and documented in the design proposal, fire safety strategy, and formally agreed upon with relevant stakeholders, including clinical teams, fire safety advisors and Local Authority Building Standards.

2.7. SHTM 82 applies to all healthcare premises, including premises that do not have patient treatment facilities, such as offices, laboratories, and storage facilities.

2.8. Throughout this guidance, reference is made to healthcare premises owned or occupied by NHSScotland; however, the standards are equally applicable to healthcare premises owned or managed by another provider.

2.9. SHTM 82 should be used in conjunction with the complete SHTM, Firecode suite of documents that provide guidance on the application of fire safety standards in healthcare premises.

2.10. This document does not include publication dates of British and other technical standards; the latest edition should be used.

Use by competent persons

2.11. The guidance in this document has been prepared on the understanding that it can be interpreted and utilised by ‘competent persons’, who are appropriately qualified with sufficient technical knowledge relevant to the healthcare environment.

3. Design and installation

3.1. There should be early consultation between the fire detection and alarm system designer and the NHS boards project team, including the fire safety advisor, to ensure that the proposed fire detection and alarm system meets statutory and mandatory requirements.

3.2. Clinical teams should be consulted at the design stage to ensure that patient care requirements are considered as part of the final design specification.

3.3. NHS boards should ensure that fire alarm system designers, installers, and maintenance contractors can evidence competence, relevant qualifications and experience - preferably in healthcare projects. They should consider employing companies that are United Kingdom Accreditation Service (UKAS) accredited.

4. Fire detection and alarm system

Category of system

4.1. A fire detection and alarm system should be installed in all healthcare premises:

- hospitals should be equipped throughout with a category L1 addressable automatic fire detection and alarm system
- all other healthcare premises with patient care facilities should be equipped with an addressable automatic fire detection and alarm system that is appropriate to the level of risk, as a minimum category L3
- healthcare premises that do not have patient care facilities, such as offices, laboratories, and storage facilities, and are not physically connected to a patient care facility, should have a fire detection and alarm system that is appropriate to the level of risk, typically a minimum of category L3

4.2. In addition to life safety, NHS boards should consider the importance of infrastructure and ensuring business continuity in deciding which category of fire detection and alarm system to install.

4.3. The category of fire detection and alarm system and associated rationale should be included in the building's fire safety strategy.

Multi-sensor detectors

4.4. To minimise unwanted fire alarm signals (UFAS), all new fire detection and alarm systems should be fitted with detectors, such as multi-sensors, that can distinguish between fire and false alarm triggers.

4.5. It is important that detectors are calibrated, within design parameters, to minimise the occurrence of false alarms whilst being responsive enough to detect actual fires.

Heat Detectors

4.6. Single-point heat detectors may be installed in areas where smoke detection is unsuitable, such as kitchens and boiler rooms.

Other Detection types

4.7. Other types of detectors may be considered in certain circumstances, for example:

- beam smoke detectors for large open-plan areas
- linear heat detectors in service tunnels
- flame detectors for low flashpoint flammable liquids
- aspirating smoke detection where very early detection is required

Manual call points

4.8. Fire alarm manual call points should be prominently sited and readily distinguishable from other devices, such as green emergency door release mechanisms.

4.9. A manual call point should be located at every storey exit.

4.10. A manual call point should be located at every exit to open air that leads to an ultimate place of safety, whether or not the exits are specifically designated as fire exits.

4.11. In hospitals, additional manual call points should be sited at or close to each nurses' station.

4.12. In hospitals and other healthcare premises with a progressive horizontal evacuation strategy, manual call points should be sited at exits from each compartment and sub-compartment.

4.13. Manual call points should be mounted between 1m and 1.2m above the floor level to ensure they are easily accessible for wheelchair users, in accordance with British Standard (BS) 8300-2: Design of an accessible and inclusive built environment.

Fire alarm sounders

4.14. Fire alarm sounders should be sited in all areas of the building. Care should be taken to include:

- rooftop plant rooms
- rooftop walkways
- integrated helipads
- internal plant rooms
- internal courtyards
- balcony areas
- basement areas

4.15. Fire alarm sounders should emit a consistent tone throughout the premises to ensure that the alarm is easily identifiable as a fire alert. The sound should not conflict with other audible warning devices, such as intruder alarms or medical equipment warning devices.

4.16. In hospitals and other healthcare premises with a progressive horizontal evacuation strategy, the fire alarm should sound continuously in the compartment or sub-compartment of fire origin to indicate immediate evacuation. In adjacent compartments and sub-compartments, both horizontally and vertically, the fire alarm should sound intermittently to alert occupants that they should begin preparations to evacuate.

4.17. There should be adequate acoustic separation between alarm zones so that continuous and intermittent alert signals are clearly distinguishable from each other.

Sound pressure levels

4.18. The sound pressure level (audibility) of fire alarms should generally conform to BS 5839-1, however, in hospital patient care areas, the fire alarm sound pressure level should be between 45-55 decibels (dB(A)), or 5 dB(A) above the ambient noise level, whichever is greater.

Wiring support

4.19. Fire detection and alarm system wiring should be securely fixed and supported at suitable intervals to prevent strain, sagging or long-term damage, and to ensure that it remains fixed and supported in the event of a fire.

4.20. Wiring support should be non-combustible or have at least the same fire-resistant properties as the wiring.

4.21. Fire detection and alarm system wiring installation should conform to BS 7671: Requirements for Electrical Installations

Visual alarm devices

4.22. Visual alarm devices may be provided as an alternative to alarm sounders in areas where an audible alarm would adversely impact working practices or patient wellbeing, for example, intensive care units (ICU), operating theatres, coronary care, and baby care units.

4.23. Where visual alarm devices are installed, they should unambiguously indicate whether it is an evacuation signal or an alert signal of a fire activation in an adjacent area.

4.24. Visual alarm devices should comply with BS EN 54-23: Fire alarm devices-Visual alarm devices and be installed according to BS 5839-1 and the Loss Prevention Certification Board: Code of Practice for Visual Alarm Devices for Fire Warning.

4.25. Where an internal courtyard/ garden has exits into more than one fire compartment, it should be ensured that upon activation of the fire alarm, occupants are directed away from the compartment of fire. Consideration should be given to the installation of illuminated warning signs above exit doors from the courtyard/ garden that are linked to the fire and detection system and provide clear instructions as to which exit should be used.

Voice alarm systems

4.26. Voice alarm systems may be considered, particularly for areas where large numbers of the public gather, such as atria. Voice alarm systems should comply with BS 5839-9: Code of practice for the design, installation, and servicing of voice alarm systems.

Control and indicating equipment

4.27. Control and indicating equipment should comply with BS EN 54-2: Fire detection and fire alarm systems.

4.28. It should be located close to each entrance at which the fire service arrives.

4.29. It should be secured to prevent unauthorised use. It may be beneficial to site it at a staffed location.

4.30. Repeater control and indicating equipment should be installed at key locations, such as nurses' stations and adjacent to escape bed lifts, to ensure staff can identify the location of a fire incident without delay.

Fire alarm zones

4.31. In healthcare premises with a progressive horizontal evacuation strategy, each sub-compartment should be a separate fire alarm zone.

4.32. Fire alarm zones for a hospital street should correspond, as far as possible, with the boundaries of adjoining fire alarm zones.

4.33. Where an internal courtyard/ garden exits into a single fire alarm zone, it should be considered as part of that zone.

4.34. Where an internal courtyard/ garden is adjacent to more than one fire alarm zone, the fire alarm sounders in the courtyard should sound continuously when a fire is detected in any adjacent zone.

4.35. Atria, commercial enterprises and hazard departments should each be a single fire alarm zone.

Alterations to an existing system

4.36. Where it is proposed to change the internal layout of a building or to alter the use of rooms or areas, it is important to review the configuration of the fire detection and alarm system and assess whether the type of detection in situ is appropriate for the revised use.

4.37. The cause and effect should be reviewed and revised when any alterations are made to the fire detection and alarm system.

4.38. It should be ensured that any additions to the system are compatible with the existing setup, including matching the tone of newly installed sounders with existing ones.

Radio-linked systems (wireless systems)

4.39. Where a radio-linked fire detection and alarm system is proposed, it should be ensured that the radio signal will not interfere with other radio or electronic systems used within the healthcare premises.

4.40. Fire detection and alarm systems using radio-linked components should comply with the requirements of the Electromagnetic Compatibility Regulations, BS 5839 part 1 and BS EN 54-25: fire detection and alarm systems; components using radio links.

4.41. A risk assessment should be undertaken, where it is proposed to install a wireless fire alarm system, in accordance with SHTM 06-01: Electrical services supply and distribution Part A: Design considerations.

5. Omission of detection

5.1. Detection may be omitted in the following low-risk areas, subject to a risk assessment:

- bath/ shower rooms
- toilets intended only for the use of staff
- cupboards less than $1m^2$
- voids and roof spaces, of any depth that contain only:
  - mineral-insulated wiring, or enhanced fire-resistant wiring, or wiring clipped to a metal tray or within metal conduit
  - non-combustible pipework and ducting
  - metal or plastic pipes used for water supply or drainage

6. Zone plan

6.1. A fire alarm zone plan should be displayed adjacent to the control and indicating equipment. When the fire alarm activates, the control and indicating equipment will display the area of activation. The zone plan should be used by staff and the fire service to visually locate the area affected.

6.2. The zone plan should include the following information:

- fire alarm zones
- location of the main control and indicating equipment and repeater panels
- key or legend

7. Mental health facilities

7.1. In mental health facilities, there may be patients who become distressed by the noise or flashing warning lights from the fire alarm system. Therefore, subject to risk assessment, a staff-only alert may be considered, such as a coded message transmitted through the fire alarm system.

7.2. Where patients are likely to unnecessarily activate manual call points, subject to a risk assessment, key-operated call points may be considered.

7.3. The above provisions should only be considered for areas that are permanently staffed, with robust management procedures put in place.

8. Communication with the fire service

8.1. The fire service will always respond immediately to hospitals when they receive a notification of an automatic fire alarm activation.

8.2. Fire alarm activations in hospitals should be relayed to an alarm receiving centre for onward transmission to the fire service.

8.3. The fire service will respond immediately to an automatic fire alarm activation in healthcare premises without inpatient facilities, provided the building has a detection system that can distinguish between false alarms and actual fires. Such systems should be connected to an alarm receiving centre for onward transmission to the fire service.

8.4. In existing premises, consideration should be given to upgrading the fire detection and alarm system to include detectors that can differentiate between false alarm triggers and fire, thereby meeting the criteria for an immediate fire service response (see Scottish Fire and Rescue Service website).

Note 2: The fire service will always attend an incident when they receive a 999 call that confirms a fire.

Fire alarm receiving centres

8.5. Alarm receiving centres should conform to the recommendations of British Standard (BS) 9518: Processing of alarm signals by an alarm receiving centre.

9. Interfaced systems

9.1. Addressable fire alarms are likely to interface with ancillary systems and equipment, allowing the fire alarm control panel to communicate with and control systems.

9.2. Examples of ancillary systems and equipment:

- electrically powered hold-open devices
- electric locking devices that unlock on electrical power being withdrawn
- ventilation systems and smoke damper control systems
- fuel supply cut-off devices (note: special consideration will be required for fuel supplies serving emergency systems or critical backup systems, such as generators)
- lifts and escalators
- fixed extinguishing systems
- smoke control systems
- stairway pressurisation systems
- fire shutters or curtains
- radio pagers
- vibrating pads and portable alarm devices for persons with hearing impairment.

9.3. The interfacing of the fire detection and alarm systems and ancillary systems or equipment should be carried out in accordance with British Standard (BS) 7273-6: Code of practice for the operation of fire protection measures.

9.4. The requirements for the interfacing of the fire detection and alarm system with ancillary systems or equipment should be considered at the design stage of a project.

Electronic locking devices

9.5. Doors with electronic locking devices should not impede the means of escape in the event of fire, therefore, they should be interfaced so that they operate in accordance with Scottish Health Technical Memorandum (SHTM) 81 and the non-domestic technical handbook.

Lifts

9.6. When the fire alarm activates, sounding a continuous or intermittent alarm, lifts in the fire alert zone and lifts that pass through the fire alert zone, should automatically return to the ground floor or main evacuation exit floor and be disabled.

9.7. Where a continuous or intermittent alarm activates on the ground floor or main evacuation exit floor, the lift should be halted at an alternative level and be disabled.

10. Cause and effect

10.1. The fire detection and alarm system ‘cause and effect’ is the relationship between fire detection devices, such as detectors, manual call points or ancillary equipment and the actions they initiate, such as sounding an alarm or notifying an alarm receiving centre, for example, in healthcare premises with a progressive horizontal evacuation strategy, if smoke or fire is detected (cause), the system should activate a continuous alarm (effect) in the compartment/ sub-compartment of fire origin and an intermittent alarm in adjacent compartments/ sub-compartments, both horizontally and vertically.

10.2. The cause and effect is essential to ensure that the system is aligned to the evacuation strategy and every credible fire scenario is accounted for.

10.3. The principles of the cause and effect and its alignment with the building’s evacuation strategy should be agreed at the design stage of a project, particularly where progressive horizontal evacuation is planned, or a fire engineering solution is proposed.

11. Commissioning

11.1. Fire detection and alarm systems should undergo commissioning checks by a competent person to verify that the system meets the requirements of the fire safety strategy and its design specifications.

11.2. A comprehensive list of commissioning checks is detailed in British Standard (BS) 5839-1 Section 5: Commissioning and Handover.

Documentation

11.3. The fire alarm installer should provide certificates for the design, installation, and commissioning of the system. They should also provide a comprehensive operating and maintenance manual as detailed in BS 5839-1.

Soak test

11.4. To ensure the fire detection and alarm system operates correctly and is not prone to unwanted fire alarm signals (UFAS), it should be ‘soak tested’ for a minimum period of one week. This should take place after commissioning and prior to handover

11.5. The soak test should be carried out in accordance with BS 5839-1.

11.6. During soak testing, where the system is not fully operational, there should be an alternative method to alert occupants of a fire incident.

12. Fire alarm logbook

12.1. All healthcare premises should have a fire alarm logbook for completion by fire alarm engineers and staff carrying out routine testing.

12.2. The logbook should be available for inspection by the NHS board Fire Safety Advisor and the fire service.

12.3. The logbook may be kept electronically, provided it is easily accessible.

12.4. The fire alarm logbook should include:

- test and maintenance records
- fire drill records
- isolations, system disabling, or out-of-service periods
- fire alarm activations
- system faults
- fire alarm system modifications

13. Testing and maintenance

13.1. Regular testing and maintenance are essential to ensure that the system will function correctly should a fire occur.

13.2. Routine testing also provides an opportunity to familiarise building occupants with the sound of the alarm.

13.3. Fire detection and alarm systems should be maintained, inspected and tested in accordance with the standards and timeframes in British Standard (BS) 5839-1.

13.4. Weekly testing may be carried out by building owners, managers or trained staff, however, more comprehensive testing and maintenance, including inspecting wiring, sensors and control panels, should be conducted by competent fire alarm engineers.

13.5. Interfaces between the fire detection and alarm system and ancillary systems or equipment should be tested in accordance with BS 7273 Part 6.

Weekly testing

13.6. Weekly testing should be carried out in accordance with BS 5839-1 and include the following additional factors:

- the fire alarm control and indicating equipment should be checked for any fault lights or error messages. Any defects identified should be reported using the NHS board's standard operating procedures and a rectification programme put in place
- in larger buildings it may be necessary to test manual call points in more than one alarm zone to ensure that the complete system is tested within a reasonable timescale
- the fire alarm sounders should be activated for between 5 to 20 seconds, so that in the event of a fire at the time of the weekly test, occupants are warned by the prolonged operation of the fire alarm
- the fire alarm receiving centre should be notified immediately before, and immediately after the weekly test, so that the fire service is not called unnecessarily during the test period

Self-testing systems

13.7. Fire detection and alarm systems that have a self-testing function are acceptable, provided the self-testing capability meets the standards detailed in BS 5839-1, section 6.

14. Unwanted fire alarm signals

14.1. Unwanted fire alarm signals (UFAS) are defined as an activation of a fire detection and alarm system by an event that is not a fire.

14.2. Unwanted fire alarm signals cause operational and financial disruption to vital healthcare services due to valuable time lost whilst responding to an incident, which may result in scheduled appointments or procedures being postponed. There is also a potential for patients to sustain injury during an unnecessary evacuation.

14.3. Responding to UFAS diverts the fire service from real emergencies and impacts their ability to carry out more meaningful work.

14.4. Most UFAS are caused by human error or inappropriate actions rather than system faults; effective management procedures can significantly reduce their occurrence.

14.5. NHS boards should take all reasonable steps, as detailed in this document, to reduce the occurrence of UFAS.

14.6. Causes of UFAS include:

- inadvertent activation during testing or maintenance
- system faults
- water ingress
- accidental and malicious activations of manual call points
- improper use of equipment, such as nebulisers and toasters
- failure to follow work permit procedures
- dust, steam, and aerosols
- insects
- illicit smoking and electronic vaping devices
- smoke or fumes from an external source

False alarm with good Intent

14.7. A false alarm with good intent refers to a situation where a manual call point is activated in the belief that there is a fire; however, upon investigation, this is not the case.

14.8. Staff should always be encouraged to activate the fire alarm if they believe that there is a fire.

Management

14.9. The cause of all UFAS should be investigated by the NHS boards fire safety advisor.

14.10. Following the investigation, preventative and reduction measures should be implemented to avoid recurrence.

14.11. The NHSScotland Fire safety management system should be used as the primary means of recording UFAS. This is mandated by the fire safety policy for NHSScotland - Director Letter (DL)2024-28.

Unwanted fire alarm signal reduction measures

14.12. It should be ensured that UFAS reduction measures do not compromise the efficacy of the system. Therefore, any adjustment to the system should be undertaken by a qualified engineer.

System

14.13. All manual call points should be fitted with a protective cover to prevent accidental activation, such as impact from trolleys and bed movement. A local alarm may be installed on the protective cover to deter malicious activation.

14.14. Where the sensitivity of detectors is identified as the cause of UFAS, the sensitivity may be adjusted, provided it remains within the design parameters.

14.15. Single-point smoke detectors that are prone to UFAS may be changed to multi-sensor detectors that differentiate between false alarm triggers and actual fire.

14.16. Fine mesh screens may be installed to prevent insects from entering detectors whilst still allowing smoke to reach the sensor.

Equipment and processes

14.17. Nebulisers, kettles, and aerosols should not be operated in the vicinity of smoke detectors.

14.18. Toasters should not be operated in the vicinity of smoke detectors.

14.19. Cooking activities should be carried out in designated areas.

14.20. Kitchen doors should be kept closed to prevent cooking fumes from activating nearby detectors.

14.21. Extractor fans should be switched on in areas where work processes generate fumes, steam or dust.

14.22. Showers should not be left running, when not in use, to prevent steam from activating detectors in adjacent areas.

Testing and maintenance of fire detection and alarm systems

14.23. Regular testing and maintenance schedules for the fire detection and alarm system should be adhered to. This will minimise the occurrence of UFAS due to system faults.

14.24. The fire alarm receiving centre should be notified immediately before, and immediately after testing and maintenance, so that the fire service is not called unnecessarily during the test and maintenance period.

Work activities

14.25. NHS boards should ensure that hot work permits, or standard operating procedures are in place for all scheduled work activities; they should detail actions to prevent UFAS.

14.26. Before commencing any work activity that generates dust, steam or fumes, detectors within the work area should be isolated and detector heads securely covered and sealed to prevent contamination. At the end of each daily work period and upon final completion of the work, a thorough check should be conducted to confirm that all detectors are uncovered, and the system is reactivated.

14.27. Whilst work activity is ongoing, there should be a method of detecting fire and alerting occupants in the workplace and adjacent areas.

Smoking and vaping devices

14.28. Smoking and vaping are not permitted on NHSScotland premises; however, illicit smoking and vaping may take place.

14.29. NHS boards should have control measures in place to minimise the occurrence of illicit smoking and vaping.

Training

14.30. Guidance on the reduction of UFAS should be included as part of the mandatory fire safety training. Details of fire safety training programmes are contained within Scottish Health Technical Memorandum (SHTM) 83 part 2: General fire precautions fire safety training.

Abbreviations

ARC: Alarm Receiver Centre

BS: British Standard

dB(A): A-weighted decibels

DL: Director Letter

ICU: Intensive Care Unit

PHE: Progressive Horizontal Evacuation

SHTM: Scottish Health Technical Memorandum

UFAS: Unwanted Fire Alarm Signals

UKAS: United Kingdom Accreditation Service

Glossary

Active fire precautions - installed fire safety systems.

Addressable fire alarm system - a system in which signals from detectors, manual call points, or any other devices are individually identified at the control and indicating equipment.

Alarm receiving centre (ARC) - centralised control room for the automatic receipt of a fire alarm signal, and the onward transmission of the received information to the Fire and Rescue Service.

Alarm zone - geographical subdivision of the protected premises, in which the fire alarm warning signal can be given separately, and independently of a fire alarm warning in any other alarm zone.

Compartment - division of a building into fire compartments intended to contain a fire within the compartment of fire origin, compartmented and compartmentation should be construed accordingly.

Compartment floor - means a floor with the fire resistance required to ensure compartmentation.

Compartment wall - means a wall with the fire resistance required to ensure compartmentation.

Competent person - a person appropriately qualified with sufficient technical knowledge relevant to the healthcare environment.

Defined terms:

- **Must** is compulsory and is used when indicating compliance with a legal requirement
- **Should** indicates a benchmark standard that should normally be adhered to. An alternative method may be acceptable if it can be evidenced that it meets or exceeds the benchmark standard
- **May** indicates a permissible course of action

Escape route - a route by which a person may reach a place of safety.

Escape stair - a stair forming part of an escape route.

Exit - a point of egress from a room, storey, protected zone, space, gallery, catwalk or openwork floor that forms part of, or gives access to, an escape route or place of safety.

Firecode - Scottish Health Technical Memorandums (SHTMs) relating to fire safety.

Fire hazard room - room enclosed with fire-resistant construction.

Fire hazard department - department enclosed with fire-resistant construction.

Fire safety strategy - a combination of fire safety measures that has been shown by reference to design codes or fire safety engineering analysis to be capable of satisfying the specified functional objectives.

Ground storey - means the storey of a building in which there is situated an entrance to the building from the level of the adjoining ground, or, if there is more than one such storey, the lower or lowest of these.

Hospital - a healthcare premises with bed–patient facilities.

Hospital street - a protected zone in a hospital provided to assist in facilitating circulation and horizontal evacuation, and to provide a fire-fighting bridgehead.

L1 category - fire detection and alarm systems installed throughout all areas of the building.

L2 category - fire detection and alarm systems installed only in defined parts of the building.

L3 category - fire detection and alarm systems installed in escape routes and in rooms opening onto an escape route.

Multi-sensor detectors - a detector monitoring more than one physical and/or chemical phenomenon associated with fire.

Non-Domestic Technical Handbook - the Building Standards 'Non-Domestic Technical Handbook:' provides guidance on achieving standards set in the Building (Scotland) Regulations.

Progressive horizontal evacuation (PHE) - a systematic process of moving patients away from the area affected by fire to an adjoining compartment or sub-compartment on the same level, where the occupants are protected from the immediate dangers of fire and smoke.

Protected route - route designated for use as an escape route, which is separated from the remainder of the building by fire resistant construction.

Sub-compartment - part of a building (which may contain one or more rooms, and includes, where relevant, the space above the top storey of the sub-compartment) constructed to aid horizontal evacuation.

UKAS (United Kingdom Accreditation Service) - is an accreditation body that ensures businesses and organisations in the UK meet specific standards. They assess whether companies and services follow the appropriate rules and procedures to deliver quality, reliable results.

Visual alarm device - a device that generates a flashing light to signal the occupants of a building that a fire condition exists.