



**Health
Information
and Quality
Authority**

An tÚdarás Um Fhaisnéis
agus Cáilíocht Sláinte

Fire Precautions in Designated Centres for Older People

**Guidance for Registered Providers and Persons in
Charge in discharging their responsibilities under
Regulation 28 of the Health Act 2007 (Care and
Welfare of Residents in Designated Centres for
Older People) Regulations 2013**

February 2016

Table of Contents

1.	Introduction	2
2.	Risk Management	5
3.	Precautions against the risk of fire	6
4.	Fire fighting equipment	9
5.	Building services	9
6.	Upholstered furniture, bedding and clothing	11
7.	Means of escape	12
8.	Emergency Lighting	14
9.	Maintenance	14
10.	Review of fire precautions	18
11.	Training	18
12.	Fire drills	20
13.	Fire detection and alarm systems	21
14.	Compartmentation	22
15.	Fire doors	23
16.	Fixed fire fighting systems	25
17.	Fire procedure	25
18.	Evacuation of the centre	26
19.	Fire procedure notices and emergency exit signage	28
	Appendix 1: Referenced publications	29
	Appendix 2: Referenced standards	30

1. Introduction

The framework for the regulation of residential services for older people consists of the Health Act 2007 as amended, the Health Act 2007 (Care and Welfare of Residents in Designated Centres for Older People) Regulations 2013, the Health Act 2007 (Registration of Designated Centres for Older People) Regulations 2015 and the *National Standards for Residential Care Settings for Older People in Ireland*.

The requirements relating to fire precautions under the legislation cited above are covered specifically under Regulation 28 (Fire Precautions) of the Health Act 2007 (Care and Welfare of Residents in Designated Centres for Older People) Regulations, 2013 which states:

28. (1) The registered provider shall:

- a) take adequate precautions against the risk of fire, and shall provide suitable fire fighting equipment, suitable building services, and suitable bedding and furnishings;*
- b) provide adequate means of escape, including emergency lighting;*
- c) make adequate arrangements for:*
 - i. maintaining of all fire equipment, means of escape, building fabric and building services;*
 - ii. reviewing fire precautions, and*
 - iii. testing fire equipment.*
- d) make arrangements for staff of the designated centre to receive suitable training in fire prevention and emergency procedures, including evacuation procedures, building layout and escape routes, location of fire detection and alarm call points, first aid, fire fighting equipment, fire control techniques and the procedures to be followed should the clothes of a resident catch fire.*
- e) ensure, by means of fire safety management and fire drills at suitable intervals, that the persons working at the designated centre and, in so far as is reasonably practicable, residents, are aware of the procedure to be followed in the case of fire.*

(2) The registered provider shall make adequate arrangements for:

- i. detecting, containing and extinguishing fires;*
- ii. giving warning of fires;*

- iii. calling the fire service; and*
- iv. evacuating, where necessary in the event of fire, of all persons in the designated centre and safe placement of residents.*

28. (3) The person in charge shall ensure that the procedures to be followed in the event of fire are displayed in a prominent place in the designated centre.

The layout of this guidance reflects Regulation 28, with the requirements of each sub-regulation discussed in turn.

This guidance has been developed to inform providers and persons in charge of their responsibilities under Regulation 28 in existing designated centres for older people. It also outlines many of the fire precautions inspectors would expect to see in a designated centre that is fully compliant with Regulation 28. As well as their obligations under the above legislation, providers and persons in charge should also be aware of their obligations with respect to fire safety under the following legislation:

- Fire Services Acts, 1981 & 2003
- Safety, Health and Welfare at Work Act, 2005
- Building Control Acts 1990 & 2007

Guidance on meeting obligations under the above legislation should be sought from the relevant enforcement authority in the first instance.

This document is not provided as a comprehensive description of all requirements with respect to fire precautions that must be in place within a designated centre. It should be used as an aid to providers and persons in charge in achieving compliance with Regulation 28. It must be supplemented where appropriate with advice from a competent person and the application of appropriate fire safety guidance documents.

This document is intended for existing centres and is not intended for use as a design specification for the design of new centres.

In producing this guidance, HIQA has taken account of the primary Irish fire safety guidance document intended for nursing homes and other similar type premises, 'Fire Safety in Nursing Homes', published in July 1996 by the Department of the Environment, Heritage and Local Government.

HIQA has also taken account of current international best practice across the sector which includes the following:

- 'Practical Fire Safety Guidance for Care Homes' published in February 2014 by the Scottish Government
- 'Fire Safety Risk Assessment in Residential Care Premises' published in May 2006 by HM Government in England
- Firecode NIHTM 84: 'Fire Risk Assessment in Residential Care Premises' published in November 2013 by the Department of Health, Social Services and Public Safety in Northern Ireland.

This guidance is a summary of the necessary arrangements and fire precautions that should be in place in designated centres for older people. This document is not intended to be a definitive interpretation of the law. For more detailed and comprehensive guidance on fire precautions, registered providers should consult the relevant fire safety guidance set out in Appendix 1 and seek advice from a competent person.

2. Risk management

The risk posed by fire should be subject to ongoing risk assessment in designated centres. This should be part of the risk management procedures referred to under Regulation 26 (Risk Management) of the Health Act 2007 (Care and Welfare of Residents in Designated Centres for Older People) Regulations, 2013.

As part of this process, there should be a robust procedure for:

- identifying fire hazards
- assessing the risk associated with the hazards identified
- the implementation of appropriate controls.

This should be reviewed as necessary, particularly when changes occur within the centre that may increase the risk posed by fire. The review should encompass the physical fire precautions in place as well as all fire safety management elements such as evacuation procedures. The review should take into account any or all pertinent information including any changes to the building, facilities or residents. The review should also take into account any learning arising from fire drills conducted and / or adverse events that may have occurred within the centre.

3. Precautions against the risk of fire¹

General housekeeping

Housekeeping is a very important part of an efficient fire safety regime. Typical examples of good housekeeping would include:

- not storing combustible materials in plant rooms, boiler rooms, attics, service voids and shafts, electrical main or sub-switch rooms
- storage of materials and equipment in dedicated storage areas, storerooms or cupboards
- regular checks and cleaning to remove and prevent the accumulation of waste in spaces such as plant rooms, service voids and shafts, and basements
- control and frequent disposal of packaging, waste and other combustible rubbish
- loose storage, bins and waste external to the building sited well away from the building so that any fire cannot affect external walls or overhanging eaves
- external bins and storage containers secured to prevent movement
- where fire-raising is a potential problem, bin and container lids fitted with locks
- carrying out regular building checks to ensure that storage arrangements are being complied with
- particular attention paid to housekeeping in any smoking rooms provided
- storing medical gases securely and away from escape routes
- maintenance of medical gas equipment including both mobile equipment and piped oxygen systems
- maintenance of cooking equipment, including the avoidance of built-up grease in traps and extraction equipment
- maintenance of laundry equipment, particularly the avoidance of lint build up in dryers and proper ventilation of dryers
- avoidance of unnecessary ignition sources, e.g. candles

¹ Regulation 28. (1) (a) states *the registered provider shall take adequate precautions against the risk of fire, and shall provide suitable fire fighting equipment, suitable building services, and suitable bedding and furnishings*

- regular checking of fixed and handheld electrical equipment to ensure it is maintained in safe working order such as portable appliance (PAT) testing, keeping the equipment switched off and plugged out when not in use and not overloading sockets.

Regular checks

As a matter of good practice, on a daily basis, staff should check for obstructions and/or combustibles on escape routes, that fire doors are not wedged open and that there are no warnings or faults on the fire detection and alarm panel. In addition, on a weekly basis, staff should check fire doors, door fastenings, hold open devices on doors, lighting and electrical installation (including for obvious visual damage such as breakage / scorching etc), fire fighting equipment and test a manual call point or automatic fire detector on the fire detection and alarm system etc. The nature of the checks required will vary depending on the designated centre and the fire equipment in use within the centre. The creation of a checklist will ensure that these checks are conducted reliably and consistently. The content of the checklists will depend on the centre. These checks should be recorded in the fire safety register for the centre.

Where shortcomings or faults are identified in the course of these checks, it is important that these are reported by staff for appropriate remedial action.

Use of oxygen

Oxygen is commonly used in designated centres. High concentrations of oxygen can cause materials to burn extremely rapidly and can cause some materials to burn that are not normally combustible. It can also cause an explosion if in contact with materials such as grease and oil. Smoking should not be allowed anywhere near areas where oxygen is used or stored. The use of electrical equipment such as hairdryers and electric razors should be avoided in close proximity to anywhere oxygen is stored or used. Cylinders should be stored securely in an upright position when not in use, ideally externally. They should not be located in stairs, corridors or near any possible ignition source. Where oxygen is distributed through the centre

through fixed piping, the system must only be modified by a competent person and must be adequately maintained in accordance with the manufacturers' instructions.

Smoking

Careless use of cigarettes and other smoking materials is a common cause of fire. Staff need to be vigilant. A cigarette may smoulder for some time, especially when surrounded by combustible material. A fire can start several hours after smoking materials have been emptied into waste bags and left for future disposal. Where smoking by residents is permitted in designated rooms, sufficient quantities of ashtrays should be provided. Ashtrays should be emptied regularly into a metal container which is then taken outside. Ashtrays should not be emptied into plastic waste bags. The number of combustibles in dedicated smoking rooms should be limited.

Inspections of smoking areas should be made regularly, with staff being vigilant for any sign of scorch marks or burning. Staff should ensure that discarded smokers' materials are removed and that they are fully extinguished. Evidence of scorch marks or burn marks on furniture or carpets indicates that some residents may need additional supervision.

Risk control and supervision needs to be considered for those residents that have a history of or may be susceptible to unsafe smoking practice. This could be through careless use of smoking materials, a medical condition that increases the risk when smoking, or those who may use lighters or matches in an attempt to start a fire.

Electronic cigarettes are a potential ignition source. The ignition source can be from the heating element, the battery within the electronic cigarette, or more often the charging device. If electronic cigarettes are used, the following fire safety precautions should be adopted:

- never use electronic cigarettes or smoke tobacco cigarettes where medical oxygen is in use.

- never leave e-cigarettes on charge or unattended for long periods
- never charge over night
- never charge near to or on combustible or flammable materials
- never mix components of different e-cigarettes.

4. Fire fighting equipment²

Fire extinguishers should be provided throughout the premises. The type of fire extinguisher should be appropriate to the risk. They should be positioned on escape routes, close to rooms or storey exits and if necessary, next to hazards. They should typically be placed on a stand or hung on a wall in a manner that staff can easily access them if required. Fire blankets should also be provided where necessary. Fire fighting equipment should be provided, installed and maintained in accordance with Irish Standard I.S. 291.

5. Building services³

Building services include:

- heating
- communication
- electrical
- lift
- lighting
- security
- ventilation
- water.

^{2 3} Regulation 28. (1) (a) states *the registered provider shall take adequate precautions against the risk of fire, and shall provide suitable fire fighting equipment, suitable building services, and suitable bedding and furnishings*

Building services, regardless of type, should be suitable for the premises and not pose a risk in the event of a fire. Specialist advice should be sought if there is any doubt as to the safety of any building services.

Heating systems may use a variety of fuels including oil, gas or solid fuel. Regardless of the type of system, it is important that the system complies with the relevant guidance which may include technical standards or manufacturers' instructions. In particular, systems fuelled by gas should comply with Irish Standard I.S. 820 and should only be installed or modified by a competent person.

In relation to the electrical system, any modifications or installations should only be carried out by a competent person. The installation should be installed and fitted in accordance with the National Rules for Electrical Installations (ET101) published by the Electro-Technical Council of Ireland. Emergency generating equipment should be installed by a competent person in accordance with the manufacturers' instructions.

Any appliances provided such as cooking or laundry appliances should be installed by a competent person with appropriate safety equipment provided where required; for example, shut off safety valves on gas powered cooking equipment.

Where security systems include access or egress control, they must be installed in a manner that will not impede escape in the event of a fire within the centre.

Ventilation systems including kitchen extract equipment should be installed by a competent person and should not be capable of spreading fire or smoke within the building.

6. Upholstered furniture, bedding and clothing⁴

The filling material in many items of upholstered furniture may easily catch fire, so it is important that furniture be maintained in good condition with no rips or tears that expose the filling material. Particular care should be taken in rooms designated as smoking rooms.

Bedding can be a potential fuel source in the event of fire and consideration should therefore be given to choice of bedding. While there are many standards to which bedding and fabrics can be tested, as a matter of good practice, bedding marked or labelled as flammable should be avoided. This is of particular importance in shared bedrooms or if a particular resident is a smoker or has behavioural issues that may lead to them lighting fires.

Consideration should be given to consulting a competent person when specifying furnishings and bedding to ensure they are fit for purpose and appropriate to the centre. Further information may also be obtained from technical guidance, for example, Chapter 7 of 'Fire Safety in Nursing Homes'.

Appropriate controls must be in place along with procedures to follow in the event the clothes of a resident catch fire. These control measures should be identified as part of the risk assessment process. Clinical input as to the capabilities and behaviour of residents should be used also as part of the risk assessment process. Particular care must be taken that smoking rooms are provided with appropriate equipment to extinguish the clothes of a resident, such as a fire blanket.

Labels attached to bedding, drapes, clothing and upholstered furniture can be helpful and informative in regard to the above.

⁴ Regulation 28. (1) (a) states *the registered provider shall take adequate precautions against the risk of fire, and shall provide suitable fire fighting equipment, suitable building services, and suitable bedding and furnishings*

7. Means of escape⁵

Detailed information on means of escape is beyond the scope of this guidance.

Means of escape and building design generally should be determined by reference to appropriate technical guidance by a competent person with the input of the relevant fire and building control authority as appropriate.

Escape routes should be clear from obstruction and must be sufficiently wide to enable evacuation of the building, taking into account the physical condition of residents and the evacuation methods likely to be employed. Obstructions to be avoided include (but are not limited to) furniture, curtains or blinds hung in a way so as to impede the use of a final exit. Typically, each storey should have at least two independent escape routes.

Corridors and stairways on escape routes should be maintained clear of any obstruction and should not be used for storage. This is of particular importance where the corridor or stairway constitutes the only escape route from part of a building.

An escape route should not be by way of a lift, unless the lift is specifically designed for the purpose of evacuation.

The final exit on an escape route from a building to the outside should lead to an area of safety. If it leads to an enclosed area such as a yard or garden, the area should ideally have a means of exit without re-entry to the building. If there is no way to exit the area without re-entering the building, the area must be large enough to ensure the safety of occupants.

External escape stairways are occasionally in place within existing buildings as an alternative means of escape where the building has no more than three storeys and a suitable internal stairway cannot be practicably provided. Where provided, it must be sufficiently wide to evacuate the building safely, taking into account the physical condition of residents and the evacuation methods likely to be employed. The

⁵ Regulation 28. (1) (b) states *the registered provider shall provide adequate means of escape, including emergency lighting;*

external wall adjacent to the external escape route must be fire-resistant (as well as any doors and windows) to protect occupants on escape routes from any fire within the building.

Consideration should be given to the means of escape from inner rooms. An inner room is a room not accessed from a circulation space, such as a corridor, where the only way in or out of the room is through another room. Inner rooms should not be used as bedrooms.

For centres using phased evacuation (see 'Evacuation of the Centre'), the building must be divided appropriately with fire resistant construction. The division of the centre into compartments with fire resistant construction is necessary to provide adequate means of escape to areas of relative safety elsewhere in the building.

Doors on escape routes should not be fitted with any locking device. If a locking device is required, the locking device should be openable in the direction of escape without the use of a key. In simplest terms this would include thumb turn locks fitted to doors provided for a small number of occupants or push bar and push pad devices fitted to doors provided for large numbers of occupants. Where additional controls are required to safeguard residents, one or more of the following should be in place:

- electrically powered lock (with suitable fail safe, typically connected to the fire detection and alarm and / or green manual call point / break glass unit)
- increased staff supervision
- motion detector which actuates local alarm
- door exiting alert
- relocation of particular residents.

Key-operated or staff-controlled doors on escape routes are sometimes provided, in limited situations where accommodation is provided for people with dementia or cognitive impairment. In this situation, a risk assessment (carried out by a competent person with input from the fire authority as appropriate) must have identified that residents may disperse in the wrong direction in the event of a fire detection and alarm activation. Where provided, the possible delay in escape from

the centre due to the presence of these doors must be compensated for by the ability of well-trained staff to organise a controlled evacuation more quickly (and with greater confidence) than if the residents had dispersed independently. In such cases, there should be one key that operates all doors concerned and all staff members should have this key on their person. A copy of the key should also be located adjacent to each door in a break glass unit.

8. Emergency lighting⁶

Emergency lighting should be designed, installed and maintained to Irish Standard I.S. 3217. Emergency lighting is lighting provided in the event of power failure to the regular lighting within a building. It should be provided to circulation spaces such as stairs, lobbies and corridors in all centres. It should also be provided in large dayrooms, circulation spaces etc. and generally throughout the building in accordance with the standard. It is also recommended that escape lighting be provided outside the building adjacent to final exits; this is to facilitate safe dispersal of occupants outside of the building where necessary.

The system can be maintained or non-maintained. Maintained systems are always illuminated. Non-maintained systems only illuminate in the event of power failure.

9. Maintenance⁷

Fire extinguishers

Fire extinguishers should be maintained once a year by a competent person. The standard for the installation and maintenance of extinguishers is Irish Standard I.S. 291. Staff should be trained in their use. A certificate confirming this maintenance

⁶ Regulation 28. (1) (b) states *the registered provider shall provide adequate means of escape, including emergency lighting;*

⁷ Regulation 28. (1) (c) states *the registered provider shall make adequate arrangements for: (i) maintaining of all fire equipment, means of escape, building fabric and building services;*

should be provided by the competent person and should be kept in the fire safety register for the centre.

Quarterly servicing of fire detection and alarm system and emergency lighting

In addition to daily and weekly checks by staff in the centre, the Irish Standards concerned stipulate that the fire detection and alarm system and emergency lighting system should be maintained quarterly by a competent person. A certificate confirming said maintenance should be provided by the competent person and should be kept in the fire safety register for the centre. The certificate confirming maintenance of the fire detection and alarm system should also be displayed adjacent to the alarm panel.

Means of escape

As a matter of good practice, on a daily basis, staff should check for obstructions and/or combustibles on escape routes, that fire doors are not wedged open and that there are no warnings or faults on the fire detection and alarm system panel.

In addition, on a weekly basis, staff should check door fastenings, hold-open devices on doors, electronic locking devices, lighting units (for damage), fire fighting equipment and test a manual call point or detector on the fire detection and alarm system panel etc. The nature of the checks required will vary depending on the designated centre and the fire equipment in use within the centre. All checks should be recorded in the fire safety register.

Building fabric and building services

Any damage to the fabric of the building such as damage to walls, ceilings and floors or damage to handrails, doors (particularly fire doors), windows and flooring should be identified as part of housekeeping checks and attended to on a timely basis, particularly where the damage could pose a risk in the event of a fire.

Building services such as gas, electricity, ventilation systems and lifts should be adequately maintained by a person competent in the maintenance of the system concerned.

Heating systems may use a variety of fuels including oil, gas or solid fuel. Regardless of the type of system it is important that the system is maintained in accordance with the relevant guidance which may include technical standards or manufacturers' instructions. In particular, systems fuelled by gas should comply with Irish Standard I.S. 820 and should only be installed or modified by a competent person.

In relation to the electrical system, it should be maintained by a competent person in accordance with the National Rules for Electrical Installations (ET 101) published by the Electro-Technical Council of Ireland. Portable electrical appliances should also be checked periodically to ensure continuing safe operation. Similarly, electrical equipment such as beds and hoists must be maintained in a safe and serviceable condition by a competent person.

Emergency generating equipment where provided should be maintained by a competent person in accordance with the manufacturers' instructions.

Lifts should be inspected on a regular basis by a competent person to ensure continuing safe operation.

Any appliances provided (such as cooking or laundry appliances) should be maintained by a competent person with appropriate safety equipment provided; for example, shut off safety valves on gas powered cooking equipment. Cooking equipment should be maintained free of excess grease and laundry equipment should be maintained free of excess lint.

Where security systems include access or egress control, they must be maintained in a manner that will not impede escape in the event of a fire within the centre.

Ventilation systems including smoke ventilation systems and kitchen extract equipment should be regularly inspected and maintained. Kitchen extract equipment

should be cleaned to prevent the accumulation of grease which would pose a hazard in the event of a fire.

Where oxygen is distributed throughout the centre through fixed piping, the system must only be modified by a competent person and must be adequately maintained in accordance with the manufacturers' instructions.

Where building services such as pipes, ducts or cables penetrate walls, floors or ceilings that are provided to contain a fire in the event should one occur, the penetration should be filled and fire stopped appropriately by a competent person to prevent fire and smoke spread and such fire stopping should be maintained in a serviceable condition.

In general, any malfunction or damage to any building service that poses a fire risk should be repaired in a timely fashion by a person competent in the maintenance of the relevant service.

Records pertaining to maintenance above including certificates should be kept to ensure adequate maintenance is being carried out on an ongoing basis. Any records pertaining to fire safety should be kept in the fire safety register.

Where malfunction or damage is identified, it is important that this is reported by staff for appropriate remedial action.

Combustible wall and ceiling finishes

Detailed information on combustible wall and ceiling finishes is beyond the scope of this guidance. Guidance can be obtained by reference to appropriate technical guidance by a competent person with the input of the relevant fire and building control authority as appropriate.

Consideration of combustible wall and ceiling finishes is important as it could prevent occupants from escaping and spread fire. It is especially important that appropriate wall and ceiling finishes are used for escape routes such as corridors and stairways.

Examples of non-combustible wall finishes would include brickwork, blockwork, concrete, ceramic tiles and plaster finish.

10. Review of fire precautions⁸

Arrangements for fire precautions should be reviewed for adequacy. Fire precautions in place must reflect current best practice in as much as is possible.

In particular, the arrangements relating to the fire procedure and for evacuation of the centre should be reviewed in order to ensure they are still fit for purpose. The review should be informed by such information as outcomes from training and drills conducted, changes to the centre, changes to the profile of residents within the centre and any adverse events that may have occurred.

As previously discussed, all fire equipment should be tested as part of ongoing maintenance.

11. Training⁹

Suitable training should be provided to staff. The frequency of training will usually be annually but may be carried out more often depending on risk assessment and turnover of staff. Training is required:

- when staff start employment or are transferred into the premises
- when changes have been made to the emergency plan and the preventive and protective measures

⁸ Regulation 28. (1) (c) states *the registered provider shall make adequate arrangements for: (ii) reviewing fire precautions, and (iii) testing fire equipment.*

⁹ Regulation 28. (1) (d) states *the registered provider shall make arrangements for staff of the designated centre to receive suitable training in fire prevention and emergency procedures, including evacuation procedures, building layout and escape routes, location of fire alarm call points, first aid, fire fighting equipment, fire control techniques and the procedures to be followed should the clothes of a resident catch fire.*

- where working practices and processes or people's responsibilities change
- to take account of any changed risks to the safety of staff or other relevant persons
- to ensure that staff know what they have to do to safeguard themselves and others on the premises.

Training should be given by persons competent to do so. Certain elements of training will be specific to the designated centre. Typical areas that a thorough training programme would cover include:

- the importance of keeping fire-doors closed (or closing them) to prevent the spread of fire, heat and smoke
- what to do on discovering a fire
- how to raise the alarm and what happens then
- how to read the fire detection and alarm system panel
- what to do upon hearing the fire alarm
- the procedures for alerting other staff, residents and visitors including, where appropriate, directing them to exits
- the arrangements for calling the fire and rescue service
- the identification and use of protected areas for phased evacuation
- the evacuation procedures for everyone in the centre to reach an assembly point at a place of total safety, in particular the role of residents
- the evacuation procedures for residents who require assisted escape, to reach an assembly point at a safe place
- how to assess the needs of a resident in the event of an evacuation
- resident handling where staff are required to assist in the evacuation of residents and training in the use of any evacuation aids if required
- the location, selection and practical instruction in the use of fire fighting equipment
- the location of escape routes, especially those not in regular use
- how to open all emergency exit doors
- where appropriate, how to stop machines, appliances and processes and isolate power supplies in the event of a fire

- the reason for not using lifts (except those specifically installed or nominated, following a suitable fire risk assessment, for the evacuation of people with a disability)
- how to reduce risk when working with or storing highly flammable and explosive substances and bottled or piped oxygen
- the importance of general fire safety, which includes good housekeeping
- fire drills, with and without residents' involvement
- procedures to be followed should the clothes of a resident catch fire.

The details of training given including the content, attendees and dates should be recorded to ensure training needs are being met on an ongoing basis. Training should be recorded in the fire safety register.

12. Fire drills¹⁰

Drills should be used to determine if the fire procedure is fit for purpose. They should also be used to identify training, staff and equipment needs.

There is no legislative requirement to carry out a minimum number of fire drills per year. The requirement is that the frequency of drills is suitable to ensure that staff and in so far as is reasonably practicable, residents, are aware of the procedure to follow in the event of fire. This will usually be at least twice a year but drills may be carried out more often depending on risk assessment and turnover of staff.

The feasibility of involving residents who can't walk, residents who have reduced mobility, residents who are acutely unwell and residents who are likely to become acutely unwell due to their participation should be considered with the welfare of the resident the main priority; but residents should be included in fire drills whenever possible.

¹⁰ Regulation 28. (1) (e) states *the registered provider shall ensure, by means of fire safety management and fire drills at suitable intervals, that the persons working at the designated centre and, in so far as is reasonably practicable, residents, are aware of the procedure to be followed in the case of fire.*

Some drills should be conducted either at night or simulating night time conditions in order to ensure night time staffing levels are sufficient for evacuation purposes.

Centres should record, the fire scenario simulated, the length of time taken for evacuation of residents as well as any problems or deficiencies identified during the drill. These records should be included as part of the fire safety register for the centre.

The provider should strive to achieve evacuation of any given compartment (see 'Compartmentation') within the centre in 2min 30seconds.

Fire drills should be reviewed post drill to determine any additional staff, training or equipment needs as well as to determine if any modifications are required to the fire procedure or the evacuation strategy for the centre.

13. Fire detection and alarm systems¹¹

Fire detection and alarm systems are necessary in order to detect and give early warning of fire in a timely fashion. Fire detection and alarm systems are installed and maintained to Irish Standard I.S. 3218. All centres should be provided with a fire detection and alarm system with coverage throughout the building. This is a type 'L1' system as described within the standard.

For premises using phased evacuation, it is important that there is the means for staff to identify from the panel, the area of the building in which the detection has occurred. This is very important to allow staff to know as quickly as possible which compartment to investigate with a view to locating the source of the alarm and prioritising which compartment must be evacuated if required.

The panel should be located in a visible and accessible location, ideally beside the main access point to the building. Additional 'slave' panels should be installed in larger buildings in accordance with the standard so that staff do not have to travel

¹¹ Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (i) detecting, containing and extinguishing fires; (ii) giving warning of fires;*

an excessive distance in order to read a panel and determine the nature of the activation.

Manual call points should be provided in all cases, typically in circulation spaces (such as stairways, lobbies and corridors) and near exit doors. If malicious activation is a concern, they may be fitted with a transparent cover.

In all cases, it is important that any door releases, hold-open devices on doors and electric door locks connected to the fire detection and alarm system are checked as part of the fire detection and alarm system maintenance program.

14. Compartmentation¹²

Detailed information on compartmentation is beyond the scope of this guidance. Compartmentation and building design generally should be determined by reference to appropriate technical guidance by a competent person with the input of the relevant fire and building control authority as appropriate.

Compartmentation is necessary to contain fire, should one occur. Compartmentation refers to the way the building is constructed to restrict the spread of fire and smoke by sub-dividing it into compartments separated from one another by walls and/or floors of fire resistant construction. There are two reasons for this:

1. to prevent rapid fire and smoke spread which could trap occupants in the building
2. to reduce the chance of the fire becoming large.

In most common arrangements, the building should be divided into compartments for phased evacuation. The building would be divided both vertically (walls) and horizontally (floors). Escape stairs and corridors should be fully enclosed in fire resistant construction. Each floor in a centre should be divided into at least two compartments.

¹² Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (i) detecting, containing and extinguishing fires; (ii) giving warning of fires;*

In all centres, it is important that all fire hazard rooms are enclosed in robust fire resistant construction with a fire door. Fire hazard rooms are usually self-evident and would include kitchens, bedrooms, laundries, switch rooms, boiler rooms, fuel storage, medical gas storage etc. Where the door to the room is to the outside of the building, it does not need to be a fire door unless it needs to protect an external escape route.

A common problem with fire resistant construction is when a fire resistant partition does not extend above a false ceiling to true ceiling height. This may result in unseen fire spread through the void above the false ceiling.

Where building services such as pipes, ducts or cables penetrate walls, floors or ceilings that are provided to contain a fire in the event should one occur, the penetration should be filled and fire stopped appropriately by a competent person to prevent fire and smoke spread and such fire stopping should be maintained in a serviceable condition.

15. Fire doors¹³

Detailed information on the provision of fire doors is beyond the scope of this guidance. The provision of fire doors and building design generally should be determined by reference to appropriate technical guidance by a competent person with the input of the relevant fire and building control authority as appropriate.

Any access through fire resistant construction mentioned above should be provided by way of fire doors. Effective fire doors are essential to ensure occupant safety in buildings. Their purpose is to hold back fire and smoke, preventing escape routes from becoming unusable as well as preventing fire and smoke spread from one area to another.

Fire doors typically have at least three hinges. Fire doors are typically fitted with an intumescent strip¹⁴ and cold smoke seal either around the edge of the door or in the

¹³ Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (i) detecting, containing and extinguishing fires; (ii) giving warning of fires;*

frame of the door. The brush-like cold smoke seal first fills the gap between the door and the frame and impedes the passage of smoke through the door; the intumescent expands when exposed to heat sealing the gap between the door and the frame. The intumescent material is often adjacent to the cold smoke seal. Occasionally, the cold smoke seal will be in the form of a rubber 'blade' instead of a brush seal.

On some doors, there may be a metal plaque or sticker located along the inner edge of the door or frame with details of the fire door and its rating.

All fire doors should be fitted with a self-closing device capable of closing the door. This is not a requirement for doors on cupboards and ducts normally kept locked. Where a self-closing device is deemed to be an impediment to a resident, consideration may be given to hold open/release devices. Examples of these would include:

- electromagnetic devices fitted to the fire door that release when the fire detection and alarm operates allowing the door to close
- acoustically-activated door release mechanisms that release upon detecting the fire detection and alarm siren allowing the door to close. These are not suitable for fitting to fire doors protecting stairways
- 'free-swing' closers which operate by allowing the door leaf to work independently of the closer until operation of the fire detection and alarm system at which point the closer operates and the door will close.

Any devices connected to the fire detection and alarm system must disengage, thus closing the door when the fire detection and alarm system is activated as well as in the event of any alarm malfunction or power failure.

It is not acceptable to disable a self-closing device through the use of wedges or props. It is not acceptable to remove the self-closing device. It is not acceptable to remove a fire door.

¹⁴ An intumescent strip is a strip of material that swells up when heated and seals a gap in the event of a fire.

16. Fixed fire fighting systems¹⁵

This may include fixed automatic water sprinkler systems provided throughout the centre as well as other suppression systems provided for protection of particular installations such as kitchen fire suppression systems, suppression systems placed above generators or boilers and inert gas suppression provided for the protection of electronic equipment such as servers.

Detailed guidance on the above is beyond the scope of this document. Any system provided should be designed, installed and maintained in accordance with the relevant standard by a competent person.

17. Fire procedure¹⁶

The registered provider should have in place a clear and unambiguous procedure to be followed in relation to fire. It should include the following:

- what staff should do upon hearing the fire detection and alarm system
- what staff should do in the event of fire including arrangements for calling the fire service and meeting same on arrival
- evacuation of the centre
- where residents should assemble or be taken after they have left the centre
- how staff check whether the centre has been evacuated.

All staff should be aware of the procedure. The procedure should be consistent; the signage on the wall must match the documentation. The procedure should be covered as part of the training provided.

There must be enough staff present in the centre at all times to implement the fire procedure.

¹⁵ Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (i) detecting, containing and extinguishing fires; (ii) giving warning of fires;*

¹⁶ Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (iii) calling the fire service; and (iv) evacuating, where necessary in the event of fire, of all persons in the designated centre and safe placement of residents.*

18. Evacuation of the centre¹⁷

The evacuation strategy used for the premises may be either single stage/total evacuation or progressive/phased horizontal evacuation. The evacuation strategy must be clear from the procedure. All staff and residents, where appropriate, must be aware as to what strategy is utilised in the centre.

Total evacuation is where all occupants of a building simultaneously evacuate upon hearing the alarm. This is appropriate for buildings where it may be expected due to building size and/or capability of residents that all people inside are able to (and will) evacuate quickly to a place of safety outside the building.

Phased evacuation is evacuation in a controlled sequence, with those within the building at the greatest risk being evacuated directly to another part of the building through a fire door or doors into another compartment within the building. The initial movement from one compartment to another is typically horizontal within the building, if the premises layout allows it.

A phased evacuation strategy will typically be the only realistic evacuation strategy within centres due to the difficulty in moving residents and potentially extended evacuation times.

The fire procedure must reflect the evacuation strategy selected for the centre. A fire procedure for a premises implementing phased evacuation needs to detail how staff will assess the situation to determine the fire location and decide who is at immediate risk. It must detail the process of evacuating the compartment involved and the process of further evacuation of the centre as appropriate to the situation.

The fire detection and alarm system must enable staff to quickly determine which compartment to investigate with a view to locating the source of the alarm and prioritising which compartment must be evacuated if required.

¹⁷ Regulation 28. (2) states *the registered provider shall make adequate arrangements for: (iii) calling the fire service; and (iv) evacuating, where necessary in the event of fire, of all persons in the designated centre and safe placement of residents.*

For residents of designated centres who are not capable of responding to fire detection and alarm system activation and evacuating themselves without assistance, their needs and capabilities in the event of a fire should be assessed. This is typically done by way of a personal emergency evacuation plan (PEEP). The content should be agreed with the resident or representative as appropriate. A PEEP should contain primarily:

- a current picture of the resident and pertinent information relating to him/her
- information on the capabilities of the resident in understanding the fire detection and alarm sounder
- information on the capabilities of the resident to evacuate and outline what staff need to do to help them as well as the method of evacuation (wheelchair/walking aids/other evacuation aids)
- information on any supervision requirements after the evacuation.

This assessment should be reviewed as often as is necessary to reflect the current needs of the resident.

The method of evacuation for residents, as well as any evacuation aids used, must be appropriate to the needs of residents and must be appropriate to the escape route and the adopted evacuation strategy. Where an evacuation aid such as a ski sheet, wheelchair, comfort chair, wheeled bed etc. has been provided in order to meet the evacuation needs of the resident, all staff must be trained in its use and the escape routes should be suitable for the use of the evacuation aid.

19. Fire procedure notices and emergency exit signage¹⁸

Fire procedure notices must be displayed in a legible format in a prominent location. If a resident is expected to read a notice, then it must be in a format that allows them to do so.

Consideration should also be given to the display of floor plans throughout the centre annotating details such as the general layout, boundaries between compartments and specific relevant information such as the location of fire extinguishers or the location of hazards such as oxygen storage. It is of particular benefit to display such a floor plan adjacent to any fire detection and alarm system panel(s) to further aid in the quick identification of any alarm activation.

Emergency exit signage is a requirement within designated centres to direct occupants to final exits. There should also be signage indicating fire safety equipment, fire doors etc.

¹⁸ Regulation 28. (3) states *the person in charge shall ensure that the procedures to be followed in the event of fire are displayed in a prominent place in the designated centre.*

Appendix 1: Referenced publications

- 'Fire Safety in Nursing Homes', published in July 1996 by the Department of the Environment, Heritage and Local Government
<http://www.environ.ie/en/Publications/Community/FireandEmergencyServices/FileDownload,820,en.pdf>
- 'Fire Safety Risk Assessment in Residential Care Premises' published in May 2006 by HM Government in England
<https://www.gov.uk/government/publications/fire-safety-risk-assessment-residential-care-premises>
- 'Practical Fire Safety Guidance for Care Homes' published in February 2014 by the Scottish Government
<http://www.gov.scot/Publications/2014/03/1383>
- 'Firecode NIHTM 84: Fire Risk Assessment in Residential Care Premises' published in November 2013 by the Department of Health, Social Services and Public Safety in Northern Ireland.
http://www.rqia.org.uk/cms_resources/DH1%2011%20938%20%20NIHTM%2084%20-%20Fire%20Risk%20Assessment%20in%20Residential%20.pdf
- ET 101:2008 National Rules for Electrical Installations, 4th Edition

Appendix 2: Referenced standards

- **I.S. 291: 2015**
Selection, commissioning, installation, inspection and maintenance of portable fire extinguishers
- **I.S. 3217: 2013**
Emergency Lighting
- **I.S. 820: 2010**
Non domestic gas installations
- **I.S. 3218:2013**
Fire Detection and Alarm Systems for Buildings - System Design, Installation, Commissioning, Servicing and Maintenance

Published by the Health Information and Quality Authority.

For further information please contact:

Health Information and Quality Authority

Dublin Regional Office

George's Court

George's Lane

Smithfield

Dublin 7

Phone: +353 (0) 1 814 7400 | URL: www.hiqa.ie