

## **FIRE SAFETY EXPECTATIONS IN PRISONS**

### **Fire Safety Requirements for Residential Prison Accommodation**

#### **Introduction**

The Regulatory Reform (Fire Safety) Order 2005 (the Order) requires the responsible persons for prisons to assess the life safety risks from fire for all those who may be affected by their activity, and to implement (and maintain in an effective state) appropriate measures to ensure that those people are sufficiently safeguarded from injury through fire.

The level of fire injuries in prison is consistently higher than any other non-domestic sector. This demonstrates that the risk to life is sufficiently high to require that, in the event that a long-term solution cannot be implemented quickly, interim measures should be introduced to reduce the level of risk whilst longer-term measures are being prepared.

The statutory fire safety minimum standard to satisfy the Order is established through benchmarking against accredited guidance and is not open to interpretation, but the actual fire safety measures employed – including management measures - can be integrated in different ways to achieve the statutory standard while also suiting the specific circumstances of any building. The bespoke fire safety expectations for prisons set out in this document have been aligned with just such an accredited guide in the attempt to set out how the statutory standard of fire safety could be achieved for prisons.

The responsible persons for prisons can choose to integrate the available fire safety measures differently to the examples in this document, and this will be acceptable provided that the responsible person can demonstrate that the statutory standard of fire safety has been reached.

It should be noted that the PUWER Regulations 1998 place additional duties upon those in control of the work equipment used to safeguard prisoners and prison staff from fire. The HSE Executive is the enforcing authority for PUWER.

The Order also includes a number of specific requirements in relation to the management of fire safety. These are not bespoke to prisons - and so have not been reproduced within this document – but they are included alongside both bespoke and ‘standard’ fire precautions measures within the scope of CPFIG inspections.

The information collected during any inspection is assessed and provided to prison governors and NOMS by means of a RAG risk rating form, usually within a few days of the inspection. Where there are significant deficiencies, these – together with the fire safety management failures which have created, failed to spot, or tolerated the deficiencies - are set out in the notices subsequently served on prison governors and NOMS.

#### **Fire Safety Expectations**

The inspection standards contained in this document have been developed by the Crown Premises Fire Inspection Group (CPFIG) in the absence of accredited guidance on fire safety risk assessment in existing prisons. CPFIG is the enforcing authority for fire safety in prisons, so inspectors have the role of identifying whether the statutory standard of life safety has been achieved, and whether this is sufficiently ensured by the fire safety management arrangements in place.

CPFIG inspectors have used their professional competencies and the available cell fire data to align the bespoke general fire precautions set out in this document with the accredited standard of safety set out in BS9999: 2008. This provides both a coherent framework against which CPFIG will inspect and a transparent standard for prison governors and competent persons to understand what they are being judged against.

BS9999: 2008 provides a benchmark for the appropriate standard of general fire precautions for existing prison residential buildings, but it does not offer guidance on every element necessary to develop appropriate fire safety solutions for a residential prison wing.

These inspection standards have been created to fill in the gaps which are neither addressed by BS9999: 2008 nor provided by other accredited guidance. They take into account not just the specific statutory duty in Article 7(6) to safeguard prisoners from fires – including those fires set by the prisoners themselves - but also (under Article 8) the statutory duty to safeguard prison staff members from injury when dealing with cell fires in the face of potential personal safety and security threats.

These bespoke fire precautions address the following prison-specific issues:

- Locked doors to cells, and on evacuation routes
- Cell fire response plan, which is outside the scope of standard evacuation strategies
- Prison atria, which have neither protected routes nor a fire-resisting enclosure
- Corridor approach and horizontally-segmented wings without protected routes

## **Article 9: The Fire Risk Assessment**

A successful fire risk assessment for any custodial building – and especially a residential wing – must benchmark the effectiveness of the existing (and proposed) control measures against the legal standard of safety set by accredited guidance.

The Fire Risk Assessment Council has set out competency criteria for the fire risk assessor's role. In the case of prisons, the role requires not only a highly-trained and experienced fire risk assessor or one with sufficient knowledge and other qualities to assess the fire safety requirements for a highly complex building and occupancy, but also a fire risk assessment format which takes into account how fire hazards increase, change and interact as a fire develops, and how fire precautions must combine to achieve their full effect. This is vital to identify the general fire precautions and timescales for intervention necessary to safeguard prisoners and prison staff members.

The PAS79 methodology used for the fire risk assessment provides a structured approach to fire risk assessment for people with knowledge of the principles of fire safety, but is not intended as a guide to fire safety and does not itself set a benchmark of the minimum standard of fire safety measures required.

The fire risk assessment should take full account of the risks arising out of those reasonably foreseeable events and behaviour that can be sources of harm. In the context of residential wings within prisons, this should include when a fire is set deliberately in a cell or communal area - especially when involving a non-compliant prisoner - and take particularly into account where the absence of fire protection measures, staffing and security arrangements may exacerbate the risk.

Where additional fire precautions are required but can't be implemented quickly, the fire risk assessment must also include in its action plan the interim general fire precautions which are reasonable in the case to reduce the risk sufficiently for the short-term.

Prisons contain many persons whose planned acts or misjudged behaviour directed at other ends can lead to fire-setting. As a result, the fire risk assessment must take into account the full range of reasons and circumstances – in addition to self-harming or suicide – in which fires are set, and use this information to identify the appropriate fire safety measures both to prevent fires and to safeguard prisoners and prison staff members adequately in the event of fire.

The fire risk assessment process must also include the fire risk assessment of specific individuals who may be at potentially higher risk of injury or death from fire. It is relatively straightforward to identify the necessary additional fire safety measures for those with a physical disability, but a specialist assessment will be required in the case of individuals who could self-harm through fire for reasons associated with their mental health.

- The fire risk assessment process must benchmark judgments of the likelihood and severity of harm against an accredited standard of safety, or be supported by fire engineering calculations.
- The fire risk assessment process must take account of all significant matters.
- The fire risk assessment should take full account of the risks of harm arising out of all reasonably foreseeable events and behaviour when identifying the necessary preventive and protective measures.
- The risks to the following groups of persons at your premises must be specifically considered:
  - Those with limiting disabilities.
  - People sleeping.
  - People in custody.
  - Young people
- The fire risk assessment should identify the necessary general fire precautions to ensure that persons are safe
- The fire risk assessment should prioritise those action points arising from it which are the most necessary to ensure that people are safe.
- The fire risk assessment should set an appropriate timescale for the required measures to be introduced.
- The fire risk assessment should identify those interim measures which are necessary to ensure that persons are reasonably safe until longer-term measures can be introduced.
- The fire risk assessment should be reviewed regularly and whenever there may have been a significant change in the matters to which it relates or there is a reason to suspect that it is no longer valid.
- The fire risk assessment should be undertaken by a highly-trained and experienced fire risk assessor or one with sufficient knowledge and other qualities to assess the appropriate fire safety requirements for prisons. The specific competency criteria for this role have been set out by the Fire Risk Assessment Competency Council.

## **Articles 4(1)(a) & 8: Measures to reduce the risk of fire**

Prisoners are known to set fires for many reasons other than attempts at suicide or self-harming. Other known motives range from using a fire to secure a move; to disrupt security; to cry for help following bullying or when struggling with mental health problems or learning difficulties; to relieve boredom; or to commit vandalism. Some fires are also accidental.

This range of motivations has been reflected in all recent cell fire inquest verdicts, in which each death was found to be either accidental or misadventure. This means that the prisoners did not plan to kill themselves, but misjudged the consequences of setting a fire for other purposes.

As some prisoners have shown themselves capable of making serious misjudgements, the key approaches must involve effective measures to educate prisoners about the consequences of fire-setting and the use of sanctions as a deterrent.

There is a significantly higher risk of fire setting amongst prisoners than there is the general population. The establishment should produce evidence that they follow reasonable and proportionate procedures to reduce the risk of fire setting in the prison population generally. They should also be able to provide evidence of enhanced risk assessment and management processes in populations where the risk of fire setting is particularly high, that is, amongst prisoners with a history of arson or self-harm.

Additional information should be provided on all wings or in cells detailing the consequences of fire setting. Whilst not all prisoners can read, thought-provoking messages and images will be absorbed and spread through the prison community.

Bespoke fire precautions should include the following:

- Appropriate sanctions should be applied following fire-setting in order to deter prisoners from setting fires or interfering with fire detectors.
- Clear and accessible information should be presented to individual prisoners during induction and afterwards about the consequences of setting a fire in their cell, in order to deter prisoners from setting fires.
- Where no automatic fire detection is fitted, some mitigation can be achieved by locating prisoners at known risk from fire in an atrium wing and where their fire-setting behaviour can best be monitored.
- Prisoners at known risk from fire should be located wherever possible in cells fitted with automatic fire detection, near to water misting equipment, and on the top landing of an atrium wing, in that order of preference.
- Locating prisoners at known risk from fire in corridor approach without automatic fire detection and mechanical smoke control must be avoided.
- Prison staff members and Healthcare staff members should liaise and take action where necessary to remove cigarette lighters and matches from prisoners in Healthcare or CSU who have a history of fire-setting or arson and/or appear to be at increased risk of self-harming through fire, to reduce the risk of a fire being set.

## **Articles 4(1)(a) & 8: Measures to reduce the risk of the spread of fire**

The likelihood of injury for prison staff members and prisoners increases very significantly if fire and toxic smoke is able to spread along corridors, or to pass from cell to cell.

Cell doors do not prevent smoke escaping from any cell fire which is allowed to develop, and smoke can gather in the common space outside the cell. However, this does not mean that fire or even smoke will always spread into other cells.

In fact, this is very unlikely where cells open into a more modern atrium, because the smoke will mainly accumulate outside that cell door, and never attain the energy to force itself into other cells. This is because it generally has too little convective energy to disperse further through an open space, particularly in the early stages of a cell fire.

In many atrium blocks, however, smoke could still pass from cell-to-cell through the ventilation ductwork. Some cell ventilation systems are fitted with shunts or smoke detector-operated fire dampers to prevent this. The same effect can be achieved with correctly-baffled ventilation ductwork, but only if the fans continue to operate during a fire.

Atrium wings dating from Victorian times were constructed with natural plenum ventilation pathways, and these are often still in place. It is difficult to predict the potential for smoke to pass through the plenum between cells, but testing has shown that it is unlikely.

The situation can be very different where cells open either onto a corridor approach or onto landings which are separated vertically by intervening floors. Whilst an effective mechanical smoke control system should maintain a safe environment outside the cells, the absence of one will allow the smoke from any cell fire to fill the corridor or landing and to start forcing itself into other cells.

Bespoke fire precautions should include the following:

- Both automatic fire detection for cells and suitable backup staffing arrangements are required for the evacuation of affected cells in atrium wings without shunts or smoke dampers fitted in the ventilation ductwork between cells or where the ventilation system shuts down on operation of the fire alarm, in order to mitigate the risk of injury arising from the spread of fire and fire gases from cell to cell.
- Robust staffing arrangements for the evacuation of affected cells, combined with automatic fire detection for cells and an effective system of mechanical smoke control are all required for enclosed landings and closed corridor approach, as benchmarked against BS9999.

## **Articles 4(1)(b), 7(6), 8 & 14: Evacuation**

The evacuation strategy in prisons includes most of the same elements as the means of escape strategy in other types of premises, but also requires specific measures for custodial buildings: In the absence of fitted water-based fire suppression systems, principal amongst these is a sufficient number of prison staff members to undertake fire-fighting and manage safe egress for prisoners from and beyond the cells to a place of safety.

Research into cell fires carried out by the Building Research Establishment on behalf of HM Prison Service in 2005 identified that a cell fire would potentially cause injury from six minutes of the first ignition, unconsciousness within seven minutes, and death within a further minute. This sets the maximum timescale of six minutes - including the time for fire detection - within which prison staff members must have implemented the cell fire response plan sufficiently to safeguard the prisoner. Further testing in 2015 has validated the 2005 results.

BS9999: 2008 establishes an acceptable benchmark for means of escape in complex premises, and many elements of the approach it sets out can be applied directly to prisons. Where an approach is not consistent with BS9999 or an equivalent standard, it will need to be evidenced through fire engineering calculations and practical testing.

Bespoke fire precautions should include the following:

- A sufficient number of prison response staff members should be available at all material times to ensure that they can implement the cell fire response plan sufficiently to safeguard the prisoner within six minutes of the fire starting, including the time for fire detection.
- A sufficient number of backup staff should be available to undertake the evacuation of other cells

#### **Articles 4(1)(c), 7(6), 8 & 14: Means to secure that cells can be evacuated safely**

Although cells are constructed to make each cell a fire-resisting enclosure and to prevent fire spread to other cells, the gaps around cell doors will allow smoke to pass out.

In an atrium setting, the smoke leaking past the cell door mainly accumulates outside that cell, and never attains the energy to force itself into other cells. This is because it has limited convective energy to disperse further through an open space, particularly in the early stages of a cell fire.

In the case of cells in corridor approach or where landings are separated by horizontal screens, smoke would be expected to fill the corridor or landing and to accumulate the energy to force itself into other cells unless it is removed by a mechanical smoke control system, combined with the releasing of lock-back doors by prison staff.

While the fire loading of most cells is sufficient to enable a serious fire to be set - even before any prisoner possessions are added - there are much larger fire loads in other spaces, such as wing kitchens, wing offices, storerooms and wing laundries. These should be fully enclosed with fire-resisting construction and protected with automatic fire detection in order to provide enough warning and time for prison staff members and prisoners to evacuate the wing safely in the event of a fire in one of these spaces.

Where there is a large fire loading within the atrium itself – such as an enclosed wooden-fabricated wing office – it will always be necessary to base the fire-fighting and evacuation strategy on an expert report which sets out the relevant fire engineering calculations. Where an approach is not consistent with BS9999 or an equivalent accredited standard, it will need to be evidenced through fire engineering calculations and testing.

Bespoke fire precautions should include the following:

- The fire loading in the corridor approach areas and enclosed landings should be limited to the minimum possible level compatible with the use of the building.
- The quantity of combustible materials in shared spaces must be limited to an acceptable level.
- An effective mechanical smoke control system, based on engineering calculations and commissioned by a competent contractor, is required for areas of corridor approach and enclosed landings to ensure that they remain tenable.
- Effective arrangements are required to ensure that lock-back doors are released where this is significant for the effective performance of mechanical smoke control systems.

- Significant fire loadings – including combustible structures enclosed with fire-resisting materials - in atria and corridor approach areas should be assessed within fire engineering calculations to ensure that they are not in excess of the design size of fire for the smoke control system installed.
- Fire hazard rooms – these are defined in BS9999 - giving onto common spaces in residential wings should be enclosed with fire-resistance.
- The fire resistance protecting the escape routes must control the spread of smoke where this could cause potential harm to persons using escape routes.
- Emergency routes and exits should be provided with sufficient emergency lighting to enable safe evacuation to proceed in the absence of normal lighting.

### **Articles 4(1)(d), 7(6), 8 & 13: Measures for Fighting Fires**

Cell fires present the most common fire risk in prisons, and the general fire precautions are overwhelmingly focused on these. However, there are other locations which require bespoke fire-fighting arrangements:

- As PSI 11 2015 sets out, there are additional difficulties from fighting fires in corridor approach when there is no mechanical smoke control.
- Prison staff face both access problems and the potential risk of violence when fighting fires under night san arrangements.
- Fires in larger rooms – including dormitories and even many healthcare bedrooms – fall outside normal cell fire procedures because prison staff are instructed not to enter in RPE.

High pressure water-misting has been adopted by NOMS as the primary fire-fighting medium for cell fires, and this will provide good protection for both prison staff and prisoners where it is deployed quickly.

In order to offer the best chance of preventing injury to those affected by the fire incident and maintaining conditions for tenability of life, NOMS has committed to commence water mist inundation as soon as possible, and certainly within five minutes of detection. Speed of response is essential: recent research into cell fires in prisons indicates that serious injury may commence within six minutes of the fire starting in a cell containing a normal fire load; unconsciousness within seven minutes; and death within eight minutes.

The conditions for backdrafts and flashovers are unlikely to be present during the initial stages of cell fires, and not at all after a short period of effective inundation, so prison staff members would avoid the risk from a backdraft or flashover by carrying out initial inundation with water spray or water mist fire-fighting equipment.

If a prisoner might remain in the fire cell for more than six minutes from ignition – while a C&R team is being gathered, for example - prison staff members must be instructed to use water misting equipment in order to ensure that the environment within the cell does not seriously injure the prisoner. The use of water mist also protects those working outside the cell door.

The effect of discharging water mist into the cell is both to suppress the fire and also to scrub a high proportion of toxic gases from inside the cell. In combination with effective automatic fire detection for cells, this approach should avoid the potential for significant injury to the prisoner, prison staff or subsequently to the members of a C&R team once the smoke has been cleared.

Bespoke fire precautions should include the following:

- Sufficient water misting equipment should be provided so that, allowing for the predicted time for fire detection, water-mist inundation is commenced within six minutes from ignition.
- Prison staff must have immediate access to the fire-fighting equipment used for an initial attack, so that it can be deployed quickly at any cell fire while water misting equipment is being prepared.
- A bespoke fire-fighting plan is required during patrol and night states - in combination with C&R and access arrangements – for wings with night-san.

### **Articles 4(1)(e), 7(6), 8 & 13: Warning of fire**

Fitted in-cell automatic fire suppression or a full standard of automatic fire detection for cells will enable prisoners and staff to be adequately safeguarded in the event of a cell fire because they ensure that fires can be detected and dealt with before they represent a serious danger.

This is reinforced by all current accredited guidance: BS9999:2008 calculates that an L2 system is required, i.e. equipment designed to afford “an early warning of fire in specified areas of high fire hazard or high fire risk”. The Building Regulations and BS5839-1: 2013 identify that cells should be fitted with an L5 (i.e. risk appropriate) standard of automatic fire detection. The difference between L2 and L5 in a prison setting is negligible, and either approach is acceptable. For the automatic fire detection for cells to be risk-appropriate, it must ensure that prison staff members are automatically alerted early enough so that the fire is not likely to have injured either the cell occupant(s) or any prison staff member by the time that cell fire response plan has been completed successfully.

Research into cell fires carried out by the Building Research Establishment on behalf of HM Prison Service in 2005 identified that a cell fire would potentially cause injury from six minutes of the first ignition, unconsciousness within seven minutes, and death within a further minute. This sets the maximum timescale of six minutes - including the time for fire detection - within which prison staff members must have implemented the cell fire response plan sufficiently to safeguard the prisoner. Further testing in 2015 has validated the 2005 results.

A significant finding from cell fire testing is that the smoke is likely to collect first at an intermediate level within the cell until it has sufficient convective energy to rise up to the ceiling. Because cell doors are not fire-resisting, this means that smoke can spill past the cell door from the start. When the fire produces more heat and the smoke has greater convective energy, not only does the smoke level rise in the cell, but it also rises outside the cell door too. This means that, whilst fire detection at an intermediate level in the cell should offer the earliest warning in most cases, a fire detector sited externally above the cell door should detect a cell fire only slightly later than a fire detector mounted on the cell ceiling.

Fire detectors mounted in the ventilation ductwork at plant room level should not be relied on as a means of detection

A full standard automatic fire detection and warning system will generally ensure that prison staff members will arrive at the cell door well within the six minutes and before the fire is injurious. This will allow them to inundate with water misting equipment at an early stage of the fire, with the result that neither they nor any prisoner would be likely to encounter injurious levels of smoke.



NOMS and MoJ are using domestic type fire detectors to mitigate the risk where there is currently no form of automatic in-cell fire detection. This can offer an acceptable interim measure while an automatic fire detection system is procured. The variety of cell configurations in prison wings makes it difficult to predict with certainty how long after ignition domestic smoke alarms outside the cell door will operate, but the indicative data suggests that they will offer a useful warning of a cell fire.

NOMS has made a commitment to support the installation of domestic smoke alarms by prisons throughout all residential wings by the end of the 2015-16 financial year, as a transitional arrangement whilst it implements the Fire Safety Improvement List under the control of MoJ Estates, and the fitting of automatic fire detection systems within a longer-term programme.

Bespoke fire precautions should include the following:

- The automatic fire protection for cells must ensure that prison staff members are alerted to cell fires sufficiently early to enable them to implement the cell fire response plan before foreseeable injury can be caused to prisoners and prison staff.
- In the absence of fitted automatic fire detection for cells, interim protection should be provided through the use of domestic smoke alarms or domestic multi-sensing fire alarms. These should be fixed and orientated according to the manufacturer's instructions, and positioned within the area of predicted smoke travel due to a fire in a given cell. A number of potential solutions are but the use of a single smoke or multi-sensing alarm within a cell or a smoke alarm externally above the hinge-edge of the cell door can also be acceptable as an interim measure where there is a clear gap at the hinge side of the door.
- Appropriate measures should be taken to prevent prisoners from interfering with or attempting to defeat the detection system prior to setting a fire. These should include the use of tamper-indicators and implementing a system of sanctions for tampering with fire detection equipment. Where necessary and as supported by testing, detectors should be sited where prisoners cannot readily tamper with them and/or measures are in place to ensure they are protected from tampering. These measures will normally be a guard but could also be regular patrols by prison staff or monitoring by means of CCTV.

#### **Articles 4(1)(f), 7(6), 8 & 15: Cell fire response instructions**

A safe system of work for cell fires which does not ensure that prisoners are protected *as far as is possible* (the statutory duty placed upon those operating prisons) creates a potentially serious breach of the Order. A parallel serious breach arises if governors take inadequate steps to protect prison staff from injury.

Any cell fire response plan must be time-based because fire is a dynamic and growing hazard as time passes, and delay directly increases the likelihood of serious injury. Research into cell fires carried out by the Building Research Establishment on behalf of HM Prison Service in 2005 identified that a significant cell fire would typically cause injury from six minutes of the first ignition, unconsciousness of the prisoner within seven minutes, and death within a further minute. This should be used as a reasonable worst case benchmark for planning and testing the cell fire response.

The cell fire response plan needs to anticipate the full range of risks from fighting a fire with the prisoner in situ. This should include bespoke arrangements for cell fires in atrium or closed corridor settings without smoke control, and arrangements to safeguard relevant persons at all material times, even where prisoners are non-compliant or prison staff are below normal staffing levels.

The conditions for backdrafts and flashovers are not present during the initial stages of cell fires, and not at all after a short period of effective inundation, so prison staff members are not placed at risk from a backdraft or flashover by opening cell doors after an initial inundation.

If a prisoner might remain in the fire cell for more than six minutes from ignition – while a C&R team is being gathered, for example - prison staff members must reduce the toxic fire gases and take into account the injurious gases which will remain in the cell even after the fire has been extinguished. This requires both the urgent use of water-mist equipment within the cell fire procedure to scrub toxic gases from the environment in the cell and a subsequent process for removing prisoners from cells within an acceptable period of time.

There is no cell fire response plan which adequately safeguards both prisoners and prison staff members in the absence of the effective automatic fire detection for cells. Where effective automatic fire detection for cells is provided, an example of an appropriate cell fire response plan could be as follows:

1. Response team bring high pressure water misting equipment to the scene, and prepare it so that it is ready for use within six minutes from ignition, including the time for detection.
2. Prison staff members first on scene don RPE, remove the inundation bung and then inundate immediately. Where water mist equipment is not already available at the landing or corridor, those persons first on scene can use a hose reel or fire extinguisher until the water misting equipment is prepared, after which they should start immediately to discharge water mist into the cell.
3. Once the conditions for unlock are met, and the prisoner wishes to leave the cell, unlock and allow the prisoner to exit and then close the door and continue inundation as long as necessary.
4. If the prisoner is unresponsive or appears non-compliant once the smoke has been cleared by the water mist, plan removal as soon as possible using C&R procedures.

The plan set out above is consistent with the current Safe Systems of Work for Cell Fires promulgated by NOMS, but adds the required timescale within which the actions must be completed.

The approach to the evacuation of other cells during a cell fire must be appropriate for, and specific to the building configuration:

- In the case of a modern atrium wing or in Victorian wings with plenum ventilation - even where a limited amount of smoke could travel via ventilation pathways between groups of cells - it is unlikely that there will be an urgent and immediate need for the wider evacuation of other cells even though the prison staff may receive multiple simultaneous alerts of fire from fire detectors or prisoners.
- The situation can be very different where cells open either onto a corridor approach or onto landings which are separated vertically by horizontal screens or intervening floors. Whilst an effective mechanical smoke control system should maintain a safe environment outside the cells, the absence of one will allow the smoke from any cell fire to fill the corridor or landing and to start forcing itself into other cells.

PSI 11 2015 emphasises the hazardous conditions that this creates - even for prison staff wearing RPE - so it is clear that both automatic fire detection and an urgent evacuation are required where closed corridors and landings separated vertically by horizontal screens or floors are not fitted with effective mechanical smoke control.

The decision on whether other cells need to be evacuated in the event of a cell fire or a fire in the common space should be clearly set out in the fire risk assessment, and supported by fire engineering calculations.

A generic plan which directs prison staff members to prioritise the evacuation of adjoining cells above safeguarding the occupant of the cell involved in fire will be unacceptable. Where there is a need to evacuate all the cells in that area – such as within corridor approach without effective smoke control – the evacuation of other cells will normally need to involve additional prison staff members beyond those required to deal with the fire cell.

The generic cell fire response plan must be adapted to suit circumstances in which fighting the fire with the prisoner in situ is not the safest available approach. This is the case for cell blocks where prisoners are not confined to their cells during patrol and night states, so that there is an opportunity for the cell block to be evacuated quickly.

Bespoke fire precautions should include the following:

- The cell fire response plan must be time-based. Allowing for the predicted time for fire detection, the fire-fighting plan must ensure that water-mist inundation has been commenced by six minutes from ignition.
- In the case of a cell fire, immediate priority should always be given to dealing with the fire and the occupant in the affected cell
- The number of prison staff members who will be available during night state must match the roles in the cell fire response plan.
- Initial inundation should be carried out where necessary in order to reduce the level of hazard created by the fire, but instructions should be given for this to be supplemented as soon as possible with the application of water mist equipment, and in every case if the prisoner might not be released from the cell within six minutes of the fire starting, allowing for the predicted time for fire detection.
- The cell fire response plan must be adapted to suit circumstances in which fighting the fire with the prisoner in situ is not the safest approach. Bespoke plans should be established for the evacuation of cell blocks where prisoners are not confined to their cells during patrol and night states.

#### **Articles 4(1)(f), 7(6), 8, 13 & 15: Fire training**

The statutory requirement for training prison staff to deal with cell fires depends upon the level of risk to which they are exposed. As the level of risk to which prison staff members are exposed at a cell fire is significant, so the fire training for staff must be frequent and rigorous.

Unless a sufficient proportion of prison staff members have received initial training and undertaken recent refresher training in dealing with cell fires, it cannot be ensured that an adequate number of trained prison staff members will be available in every wing both day and night to carry out the cell fire response procedure quickly and safely.

Prison staff members should also receive appropriate training for checking that the fire safety measures in cells have not been disabled, whether intentionally or otherwise. It is fundamental to adequate fire safety management that all prison staff members working in residential wings are able to confirm that smoke detector anti-tamper tags are in place and that cell ventilation grilles are not blocked.

Bespoke fire precautions should include the following:

- The initial training for prison staff members must ensure that new staff members are sufficiently trained to be able – under suitable supervision – to take a safe and effective part in the cell fire response plan, including using RPE and all inundation equipment.

- A sufficient number of prison staff members working in residential wings must have received initial training in RPE wearing, using inundation equipment and carrying out the cell fire response plan.
- The refresher training for prison staff members must ensure that staff members are sufficiently trained to be able to take a safe and effective part in the cell fire response plan, including using RPE and all inundation equipment.
- A sufficient number of prison staff members working in residential wings must be able to take a safe and effective part in the cell fire response plan, including using RPE and all inundation equipment.
- A sufficient number of prison staff members working in residential wings at night must be able to take a safe and effective part in the cell fire response plan, including using RPE and all inundation equipment.
- Prison staff members working in residential wings must receive sufficient training on the fire detection system to be able to carry out meaningful checks on whether it has been tampered with and whether an attempt has been made to defeat it.

**Articles 4(1)(f), 7(6), 8, 13 & 15: Mitigation measures to protect prison staff members and prisoners during a fire.**

HM Prison Service currently uses respiratory protective equipment (RPE) and cell call systems as mitigation measures for fire safety.

As the term “mitigation” implies, these provide some protection, but do not adequately safeguard the prison staff members and prisoners who become involved in a cell fire because they are only able to reduce the severity of the hazard (toxic smoke or the absence of fitted fire detection) rather than control the risks fully.

In the absence of a fitted automatic fire detections system, prisoners will use the cell call system to alert prison staff to fires. The management and monitoring of the staff response to cell calls is vital in order to mitigate the risk from fire to prisoners and prison staff.

Bespoke fire precautions should include the following:

- In the absence of a fitted automatic fire detections system, the cell call system should be monitored to ensure that the typical delay - at day or night - between cell call and staff response does not exceed six minutes minus the time required to implement inundation.
- Prisoners should be instructed to use their Cell Call alarms if they hear a smoke alarm activate.
- A sufficient stock of RPE should be available within the prison or region, so that prisons have sufficient sets to deal with a spate of copycat fires.

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