Crown Premises Fire Inspection Group

CFRA
CHIEF FIRE & RESCUE ADVISER

Date: 12th September 2016

<redacted>
Governor
HMP Featherstone
New Road
Featherstone
Wolverhampton
WV10 7PU

Crown Premises Fire Inspection Group
Fire and Resilience Directorate
Crime, Policing and Fire Group
2nd Floor NW Fry Building
2 Marsham Street
London
SW1P 4DF

Our Ref: **5916/065/01**

Please reply to: <redacted>**@homeoffice.gsi.gov.uk**

Dear Governor,

The Regulatory Reform (Fire Safety) Order 2005 (the Order)

Premises: HMP Featherstone, New Road, Featherstone, Wolverhampton, WV10 7PU

Following the fire safety inspection of the above premises on 31st August 2016, I am writing to confirm my opinion that the identified individuals or groups of people would be at risk in case of fire. You will need to take action to ensure their safety.

In the event that a long-term solution cannot be implemented immediately, you will need to introduce interim measures to reduce the level of risk whilst longer-term measures are being prepared.

Fire safety measures are largely interactive, and fire risks can be controlled in many ways. Therefore, whilst the schedule refers to solutions you could adopt, I am not directing you to choose any one of them. It will be acceptable for you to implement any measures which achieve an appropriate standard of safety from fire.

To assist you with planning solutions, the schedule identifies the most likely 'immediate' (i.e. what has occurred at the establishment) and 'underlying' (i.e. corporate) causes of the failures set out on the schedule.

Successful approaches to assessing and managing risk can be provided by accepted guidance, BS9999: 2008 or fire engineering calculations. Each of these requires the involvement of a person with comprehensive training or experience.

This letter should be read in conjunction with the previously sent RAG Risk Rating form which provides examples of the areas we have identified as specific failures and require your attention.

The RAG Risk Rating form provides a clear decision framework for assigning RAG outcomes, which will also include a score for each bespoke General Fire Precaution. This is intended to improve/demonstrate consistency of judgments, and also to provide better information to you about the success of the safety management arrangements at managing risk.

The RAG Risk Rating form contains a bar chart at the end to provide you with a visual summary of how well the establishment has been judged to be meeting the individual requirements of the Fire Safety Order. The RAG Risk Rating Form will be revised during any follow-up inspection, and this will result in a second bar on the chart, showing the improvement made.

I informed you at our meeting that my initial enforcement decision was to allow you the opportunity to comply in a timely manner. The next steps are, therefore, for you to develop

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your planned action plan, and to confirm the plan and date of completion to me within 28 days of receiving this letter.

Please note that, given the level of risk involved, I can only maintain an informal enforcement approach where you are able to evidence your commitment and ongoing progress towards compliance.

If you do not undertake the necessary improvements, then you may be served with a Crown enforcement notice.

There is no formal right to appeal against this letter but if you would like clarification of its contents or to comment on your experience of the visit, please contact either me or the CPFIG Team Leader on cpfig@homeoffice.gsi.gov.uk .

Yours faithfully

Crown Premises Fire Inspector
Crown Premises Fire Inspection Group
Office of the Chief Fire & Rescue Adviser

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Schedule

Premises: HMP Featherstone, New Road, Featherstone, Wolverhampton, WV10 7PU

File Number: 5916/065/01 **Sheet: 1 of 14**

This schedule should be read in conjunction with the CFRA letter dated **12th September 2016**.

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.

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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.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
9 9	1. The fire risk assessment process used was not sufficiently systematic to ensure that all factors likely to place ***relevant persons*** at risk were considered : 2. The fire risk assessment did not sufficiently consider the actual conditions and events likely to occur and which could place ***relevant persons*** at risk : 3. The fire risk assessment did not consider every group of persons at especial risk of harm, and give them sufficient consideration : 4. The actions necessary to reduce the level of risk for ***relevant persons*** were not *appropriately* prioritised 5. The action plan had not set an appropriate timescale to introduce the additional necessary fire safety measures to safeguard all ***relevant persons***: 6. The fire risk assessment had not identified the necessary interim measures to safeguard all ***relevant persons***: ***Likely Underlying Safety Management Failure:*** *The arrangements for carrying out fire risk assessments do not ensure that there is a systematic process in place for identifying all relevant factors.*	1. The fire risk assessment process must take account of all significant matters. 2. 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. 3. 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 4. The fire risk assessment should prioritise those action points arising from it which are the most necessary to ensure that people are safe. 5. The fire risk assessment should set an appropriate timescale for the required measures to be introduced. 6. 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. ***Safety Management Remedy:*** *The arrangements for carrying out fire risk assessments must ensure that there is a systematic process in place for identifying*	Within 28 days of receipt of this Schedule

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		all relevant factors.	

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 in the general population. The evidence collected during investigations into prison fires demonstrates that prison staff or mental health professionals are currently unable to identify a significant proportion of fire-setters in advance, so the current process of individual assessments and personal control measures cannot be relied upon sufficiently to reduce the life risk from fire-setting to an acceptable level. Until recognised tools are in place to anticipate individual fire-setting behaviour accurately, generalised fire risk reduction measures will need to be applied to all prisoners, with additional control measures (through ACCT or SIR) applied to individuals who have an assessed likelihood of self-harm or suicide through fire.

Whilst there is a need for caution in adding significantly to the information already delivered to prisoners during first night induction, it is vital that the potential for personal loss, injury, prosecution and serious sanctions from deliberate fire-setting is communicated to prisoners in order to act as an effective deterrent. There is clear scope in a prison context for using both different messengers and messages to do this effectively.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(a) & 8	1. The induction programme does not include sufficient information about the consequences of fire-setting to deter prisoners. 2.Prisoners with a history of fire-setting and those at known risk of self-harm through fire are not located in cells where they are most appropriately safeguarded from fire: ***Immediate Cause of Failure:*** *The fire*	1. a) The prisoner induction should include all potentially useful messages for deterring fire setting. b) Insiders should be used to deliver potentially useful peer-peer messages for deterring fire setting. 2. 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. Where cells are protected with automatic fire detection, prisoners at known risk from fire must be located 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.	Within 28 days of receipt of this Schedule

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9	*risk assessment did not identify the opportunity to reduce risk*		
9	***Likely Underlying Safety Management Failure:*** *The arrangements for carrying out fire risk assessments do not ensure that there is a systematic process in place for identifying all relevant factors.*	***Safety Management Remedy:*** *The arrangements for carrying out fire risk assessments must ensure that there is a systematic process in place for identifying all relevant factors.*	
	3. Periodic inspection and testing of the mains electrical installations and portable appliances have not been carried out.	3. Periodic inspection and testing of the mains electrical installations and portable appliances must be undertaken.	
17	***Immediate Cause of Failure:*** *Contractor had not carried out the remedial works*		
17	***Likely Underlying Safety Management Failure:*** *There were inadequate arrangements for the maintenance of general fire precautions.*	***Safety Management Remedy:*** *The arrangements for maintenance must ensure that the general fire precautions are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.*	

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 are not fire-resisting, so fire and smoke from any cell fire which is allowed to develop can pass into 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.

Relevant	***Insufficient information was available***	***Information required:***	***Date***

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article of the Order	*to evidence compliance in respect of the following matters:*		*Required*
Articles 4(1)(a) & 8	1. There was insufficient evidence available to demonstrate that the ventilation ductwork shared by cells provides the necessary protection against the spread of fire and fire gases from cell to cell. 2. There was insufficient evidence available to demonstrate that the existing smoke control arrangements for areas of corridor approach are adequate to prevent smoke spread to other cells in the event of a cell fire.	1. Evidence should be provided which demonstrates that the ventilation ductwork shared by cells provides the necessary protection against the spread of fire and fire gases from cell to cell. 2. Evidence should be provided which demonstrates that the existing smoke control arrangements for the areas of corridor approach are adequate. 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 closed corridor approach, as benchmarked against BS9999.	Within 28 days of receipt of this Schedule

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.

Relevant article of the Order	*Specific Failure to Comply with the Order*	*Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure*	*Action Plan Required*
Articles 4(1)(b), 7(6), 8 & 14 9 11	1. The number of trained prison response staff members available was not always sufficient to implement the cell fire response plan effectively. ***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk* ***Likely Underlying Safety Management Failure:*** *Inadequate monitoring is undertaken to establish whether the fire*	1. 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. ***Safety Management Remedy:*** *Suitable arrangements must be introduced for monitoring the success of the fire safety arrangements.*	Within 28 days of receipt of this Schedule

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	safety arrangements are successful.		
Relevant article of the Order	***Insufficient information was available to evidence compliance in respect of the following matters:***	***Information required:***	***Date Required***
	2. There was insufficient evidence available to demonstrate that there was an adequate number of contingency staff during night state to undertake the evacuation of other cells	2. Evidence should be provided which demonstrates that there is a sufficient number of contingency staff available to undertake the evacuation of other cells	Within 28 days of receipt of this Schedule

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, cell doors are not fire-resisting, and the gaps around them 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.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(c), 7(6), 8 & 14 11 11	1. Corridor approach areas contained an excessive level of combustible material. ***Immediate Cause of Failure:*** *The planned fire safety measure had not been implemented* ***Likely Underlying Safety Management Failure:*** *There are inadequate arrangements to ensure that the action points arising from the fire risk*	1. 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. ***Safety Management Remedy:*** *Arrangements must be put in place to ensure that the action points arising from*	Within 28 days of receipt of this Schedule

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	assessment are acted upon. 2. The smoke control arrangements did not ensure that the conditions outside the cell door would remain tenable for prison staff to undertake the cell fire response plane. 9 ***Immediate Cause of Failure:*** *No appropriate corrective measure was identified for action* 11 ***Likely Underlying Safety Management Failure:*** *There are inadequate arrangements for the fire risk assessment findings to be taken into account when decisions are taken, which may affect fire safety matters.* 3. Fire hazard rooms were not suitably enclosed with fire-resistance. 4. Evacuation routes were not sufficiently protected against the ingress of fire and smoke. 5. The arrangements did not ensure that lock-back doors would be released in the event of fire 9 ***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk* 11 ***Likely Underlying Safety Management Failure:*** *The fire precautions were not benchmarked against an accredited approach.*	*the fire risk assessment are acted upon.* 2. 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. ***Safety Management Remedy:*** *Arrangements must be put in place for the fire risk assessment findings to be taken into account when decisions are taken over matters which affect fire safety.* 3. Fire hazard rooms – these are defined in BS9999 - giving onto common spaces in residential wings should be enclosed with fire-resistance. 4. The fire resistance protecting the escape routes must control the spread of smoke where this could cause potential harm to persons using escape routes. 5. 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. ***Safety Management Remedy:*** *The fire precautions should bet benchmarked against an accredited approach.*	
Relevant article of the Order	***Insufficient information was available to evidence compliance in respect of the following matters:***	***Information required:***	***Date Required***
Articles 4(1)(c), 7(6), 8 & 14	6. There was insufficient evidence available to demonstrate that emergency routes and exits were fitted with emergency lighting of sufficient intensity	6. Evidence should be provided which demonstrates that the emergency routes and exits are provided with sufficient emergency lighting to enable safe evacuation to proceed in the absence of normal lighting.	Within 28 days of receipt of this Schedule

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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, both because water misting is only effective in small enclosed spaces and because prison staff are instructed not to enter in RPE.

Standard hose reels or fire extinguishers will be required to deal with other fires than those in normal cells. However, 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.

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.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(d), 7(6), 8 & 13 18 11	1.The ancillary equipment required for firefighting (e.g. Inundation port keys) was not held at a suitable location ***Immediate Cause of Failure:*** *Day-to-day management of the fire safety arrangements was inadequate.* ***Likely Underlying Safety Management Failure:*** *Inadequate monitoring is undertaken to establish whether the fire safety arrangements are successful.*	1. The ancillary equipment required for firefighting (e.g. Inundation port keys) must be held at a suitable location. ***Safety Management Remedy:*** *Suitable arrangements must be introduced for monitoring the success of the fire safety arrangements.*	Within 28 days of receipt of this Schedule

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.

The use of domestic or stand-alone smoke alarms as an interim measure mitigates the risk significantly, and contributes greatly to the safety of prisoners and prison staff members. However, stand-alone smoke alarms are not suitable as a long-term measure because, although they detect fires quickly and sound a local alarm, the absence of a connection to the fire alarm and the lack of a reported fire location means that some extra delay is likely before prison staff members are alerted to the fire, and identify the cell involved.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(e), 7(6), 8 & 13 5 11	1. The coverage of cells by automatic fire detection was insufficient to control the risk to an acceptable level. ***Immediate Cause of Failure:*** *Corrective works are under way, but not completed* 2. The absence of fitted automatic fire detection protection for cells was not *sufficiently* mitigated through the use of interim measure fire detectors. ***Immediate Cause of Failure:*** *The identified action point was not implemented*	1. 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. 2. In the absence of fitted automatic fire detection protection 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 possible, 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.	Within 28 days of receipt of this Schedule

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11	***Likely Underlying Safety Management Failure:*** *There are inadequate arrangements to ensure that the action points arising from the fire risk assessment are acted upon.* 3. Insufficient measures are in place to prevent prisoners from interfering with or attempting to defeat the detection system prior to setting a fire.	***Safety Management Remedy:*** *Arrangements must be put in place to ensure that the action points arising from the fire risk assessment are acted upon.* 3. 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 protected with a protective guard or sited where prisoners cannot readily tamper with them.	
9	***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk*		
11	***Likely Underlying Safety Management Failure:*** *Inadequate monitoring is undertaken to establish whether the fire safety arrangements are successful.*	***Safety Management Remedy:*** *Suitable arrangements must be introduced for monitoring the success of the fire safety arrangements.*	

Cell fire response instructions

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.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(f), 7(6), 8 & 15 **9**	1. The cell fire response plan does not ensure that the actions of prison staff are sufficiently prioritised towards safeguarding those at greatest risk, in the fire cell. 2. The generic cell fire response plan was not suitable for the circumstances in which prisoners are not locked in cells and will be best safeguarded through an evacuation of the building 3. The fire-fighting plan is not time-based. ***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk*	1. 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 2. 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. 3. The fire-fighting plan should be time-based, starting from when the fire is started, and taking into account the predicted time for fire detection. By six minutes from ignition – including the time for detection - the fire-fighting plan must ensure that water-mist inundation has been commenced. ***Safety Management Remedy:*** *The arrangements for carrying out fire risk*	**Within 28 days of receipt of this Schedule**

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9	***Likely Underlying Safety Management Failure:*** *The arrangements for carrying out fire risk assessments do not ensure that there is a systematic process in place for identifying all relevant factors.*	*assessments must ensure that there is a systematic process in place for identifying all relevant factors.*	
Relevant article of the Order	***Insufficient information was available to evidence compliance in respect of the following matters:***	***Information required:***	***Date Required***
Articles 4(1)(f), 7(6), 8 & 15	4. There was insufficient evidence available to demonstrate that the cell fire response plan sufficiently safeguarded prison staff or prisoners, as there are no suitable arrangements for prison staff to be alerted to the need to implement the plan.	4. Evidence should be provided which demonstrates that 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.	Within 28 days of receipt of this Schedule

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.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(f), 7(6), 8, 13 & 15 9 13&15	1. The initial training for prison staff members does not provide sufficient practical instruction on the use of the inundation equipment and cell fire response procedures (including the bespoke fire detection systems installed). ***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk* ***Likely Underlying Safety Management Failure*** *The arrangements do not ensure that nominated persons receive suitable and sufficient training for them to carry out the fire action plan successfully and safely.* 2. An insufficient number of prison staff	1. The induction training package should ensure that new staff members are sufficiently trained to be able – under suitable supervision –to take an effective part in the cell fire response plan, including the practical use of the inundation equipment. ***Safety Management Remedy:*** *The arrangements must ensure that nominated persons receive suitable and sufficient training for them to carry out the fire action plan successfully and safely.*	Within 28 days of receipt of this Schedule

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18 13&15 9 11	members working in residential wings are **currently in-date** with their training in RPE wearing, using inundation equipment and carrying out the cell fire response plan. 3. An insufficient number of prison staff members working in residential wings during **night state** are currently in-date with their training in RPE wearing, using inundation equipment and carrying out the cell fire response plan. ***Immediate Cause of Failure:*** *Day-to-day management of the fire safety arrangements was inadequate.* ***Likely Underlying Safety Management Failure:*** *The arrangements do not ensure that sufficient trained persons are available when necessary to carry out the fire action plan successfully and safely.* 4. Prison staff members working in residential wings have not received 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. ***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk* ***Likely Underlying Safety Management Failure:*** *Inadequate monitoring is undertaken to establish whether the fire safety arrangements are successful.*	2. An adequate number of prison staff members working in residential wings should be up-to-date with their training in RPE wearing, using inundation equipment and carrying out the cell fire response plan. 3. All prison staff members working in residential wings during night state should be up to date with their training in RPE wearing, using inundation equipment and carrying out the cell fire response plan. ***Safety Management Remedy:*** *The arrangements must ensure that sufficient trained persons are available when necessary to carry out the fire action plan successfully and safely.* 4. All prison staff members working in residential wings should 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. ***Safety Management Remedy:*** *Suitable arrangements must be introduced for monitoring the success of the fire safety arrangements.*	

General Maintenance

Where necessary in order to safeguard the safety of relevant persons the responsible person must ensure that the premises and any facilities, equipment and devices provided in respect of the premises are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.

Where the premises form part of a building, the responsible person may make arrangements with the occupier of any other premises forming part of the building for the purpose of ensuring that the requirements of paragraph (1) are met.

Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
Articles 4(1)(d), 7(6), 8 & 17	1. The responsible person has not ensured that the premises and any facilities, equipment and devices are subject to a suitable system of maintenance.	1. The responsible person must ensure that any facilities, equipment and devices are subject to a suitable maintenance programme and in an effective working order.	Within 28 days of receipt of this Schedule

9 17	***Immediate Cause of Failure:*** *The fire risk assessment did not identify the opportunity to reduce risk* ***Likely Underlying Safety Management Failure:*** *There were inadequate arrangements for the maintenance of general fire precautions.*	***Safety Management Remedy:*** *The arrangements for maintenance must ensure that the general fire precautions are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair.*	

Fire Safety Management			
Relevant article of the Order	***Specific Failure to Comply with the Order***	***Steps considered necessary to remedy the failure to comply, including an illustrative example of a compliant measure***	***Action Plan Required***
22	1. The responsible person has not established suitable co-operation and co-ordination with other responsible persons.	1. Effective arrangements should be implemented to ensure that, where PPM checks establish that fire safety facilities, equipment and devices are not in effective working order, this information is always communicated immediately between competent persons.	Within 28 days of receipt of this Schedule
8	2. The responsible person has not implemented the general fire precautions set out in the action plan	2. Arrangements must be put in place to ensure that the action points arising from the fire risk assessment are acted upon.	Within 28 days of receipt of this Schedule
11	3. Suitable proactive monitoring is not done to confirm that key risks from fire are controlled and performance standards are achieved in practice	3. Effective arrangements should be implemented to facilitate the monitoring of contractual performance, to ensure that any facilities, equipment and devices are subject to a suitable maintenance programme and in an effective working order.	Within 28 days of receipt of this Schedule
11	4. The fire safety policy does not avoid conflict between fire safety requirements and other organisational policies and business needs.	4. The fire safety policy must be amended to take into account operational and security policies, and to avoid conflict with them whilst also providing the policy framework for safeguarding relevant persons adequately from fire.	Within 28 days of receipt of this Schedule

Where appropriate, a plan may form part of this Schedule to illustrate the steps which, in the opinion of the Crown Premises Fire Inspection Group, need to be taken in order to meet the requirements of the Order.

Note: Notwithstanding any consultation with other enforcing authorities undertaken by the Crown Premises Fire Inspection Group, before you make any alterations to the workplace which constitutes building works you must apply to your local building control body (the local authority or an approved inspector) for any necessary approvals and to any other body which has a statutory interest in the workplace if their permission is required for those alterations to be made.

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