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| Scope |
| This procedure applies to all Company projects, offices, facilities, asset and concession companies and Joint Venture (JV) projects where the Company Management System has been adopted by the JV Board. Where the Company is required to operate another party’s Management System then the requirements of the Joint Venture/Alliance Business Management System (BMS) Assessment must be followed in relation to assessing the validity of third-party management systems. |

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| Purpose |
| To provide a clear understanding of the minimum requirements for eliminating/reducing risks and ensuring legal compliance associated with fire and emergency planning.  The requirements in this procedure are considered to be our current standards and must be adopted as part of a safe system of work. However, Projects and Contracts are also encouraged to identify new methods of working as long as these are: developed through rigorous risk assessment, demonstrably improve on current standards, deliver legal compliance and are approved in accordance with the Control of HSES Derogation procedure ([HSES-PR-0004](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-6992)). |

**Procedural Requirements**

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| **Roles and responsibilities** | |
|  | **Designers** |
|  | Project Designers must give consideration to the prevention and control of fire risk during the construction phase arising from their design and specification decisions in accordance with CDM Regulations ([HSF-PR-0018](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7016)) and Design Risk and Opportunity ([DES-PR-0022](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-5575)) at Stages 2 to 4 of the Gated Lifecycle including:   * The temporary works fire strategy required in complex buildings with non-standard permanent works fire controls; * Specification of timber frame buildings in urban areas; * Designs requiring hot works, particularly in occupied buildings and during refurbishment of buildings; * Designs requiring use and storage of flammable liquids and gases. |
|  | **Responsible person for fire safety** |
|  | The Site/Office/Factory/Depot Lead is the Responsible Person for Fire Safety at all Company sites, projects, offices and facilities. The Responsible Person for Fire Safety must ensure that:   * a Fire Risk Assessor, and where relevant, a sufficient number of Fire Marshals and Hot Works Responsible Persons are appointed with the competencies detailed in this procedure; * a Fire Risk Assessment for all persons within the premises or buildings/structures under construction, including off-site fire risks, and a Fire Safety Plan is completed by the Fire Risk Assessor; * familiarise themselves with the Fire Risk Assessment and Fire Safety Plan; * the requirements of this procedure, and the arrangements detailed in the Fire Safety Plan are implemented and monitored; * the Fire Risk Assessment and Fire Safety Plan are reviewed annually for fixed premises and monthly for construction projects; * there is appropriate liaison with the relevant Fire and Rescue Service and that they act as or appoint a single point of contact with the FRS; * there is appropriate liaison with responsible persons for fire safety representing occupants of shared fixed premises and occupied neighbouring buildings; * fire drills are carried out. |
|  | The Responsible Person for Fire Safety may appoint deputies to undertake the duties associated with Fire Safety, however the Responsible Person will co-ordinate all Deputies’ duties. A Responsible Person for Fire Safety may also undertake the duties of a Fire Risk Assessor and Fire Marshal if they hold the required competency listed. The Responsible Person for Fire Safety must be located at the project/fixed premise other than in the case of transient work sites. |
|  | **Hot Work Responsible Person** |
|  | Hot Works Responsible Persons are responsible for:   * issuing and closing hot works permits in accordance with this procedure; * check precautions are in place when issuing permit; * monitoring precautions remain in place during the duration of the permit; * Maintaining a register of hot works permits. |
|  | **Fire Risk Assessor** |
|  | The Fire Risk Assessor must:   * have the competency to produce a Fire Risk Assessment and Fire Safety Plan as detailed in Appendix 1; * review and incorporate the details of Fire Risk Assessments and Fire Safety Plans produced for any shared or neighbouring premises; * make a Fire Risk Assessment for all persons within the premises or buildings/structures under construction and for those occupying neighbouring premises, in accordance with this procedure and produce a Fire Safety Plan; * Where making a building project Fire Risk Assessment and Plan, liaise with the permanent fire safety strategy design consultants and Permanent Works Fire Safety Coordinator. |
|  | **Permanent works fire safety coordinator** |
|  | The Permanent Works Fire Safety Coordinator ([QUA-PR-0202](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-12519)) must liaise with the Fire Risk Assessor and Fire Marshalls about the scheduling of passive fire protection installation and any changes to programme affecting the temporary works fire protection measures. |
|  | **Fire Marshal** |
|  | The Fire Marshal is responsible for:   * familiarising themselves with the project/building Fire Safety Plan and this procedure HSF-PR-0009 * ensuring combustible materials are being controlled in accordance with the Fire Safety Plan * completing and recording a weekly inspection of the fire prevention and emergency arrangements detailed in the Fire Safety Plan for the premises/site, including fire doors, emergency route markings, means for fire-fighting and raising an alarm * ensuring emergency equipment has been tested/serviced in accordance with this procedure; * assisting with actual and test evacuation of persons, directing all staff and visitors to assembly points and accounting for persons on site; * Assisting with first responder use of fire extinguishers when safe to do so. |
|  | **Competencies** |
|  | **RESPONSIBLE PERSON FOR FIRE SAFETY** and their deputies on projects must hold a Site Managers Safety Training Scheme qualification (or Company accepted equivalent). Facilities Managers who are the Responsible Person for Fire Safety must have IOSH Managing Safely qualification (or Company accepted equivalent), and be afforded the time to undertake their duties. |
|  | **FIRE MARSHAL(S)** must have successfully completed a Fire Marshal training course (including practical fire extinguisher training) and have sufficient status and authority for the effective execution of their duties and responsibilities and be afforded the time to undertake them. |
|  | **HOT WORKS RESPONSIBLE PERSON(S)** holds a minimum Site Supervisor Safety Training Scheme (SSSTS) qualification (or Company accepted equivalent), have experience of hot work permits and are familiar with the requirements of this procedure and is Gas Safe or EUSR registered if undertaking gas works. |
|  | **FIRE RISK ASSESSORS** |
|  | Fire Risk Assessors must have the competency required for the complexity of Fire Risk Assessment as defined in Appendix 1 |
|  | **responsible person for fire safety** |
|  | The Site/Office/Factory/Depot Lead is the Responsible Person for Fire Safety at all Company sites, projects, offices and facilities. In offices of multi occupancy the responsible person may be the building manager; the Balfour Beatty Responsible Person for Fire Safety must identify and coordinate with this person. The Responsible Person for Fire Safety may appoint deputies to undertake the duties to assist with their responsibilities, however the Responsible Person will co-ordinate all Deputies. A Responsible Person for Fire Safety may also undertake the duties of a Fire Risk Assessor and Fire Marshal if they hold the required competency. |
|  | The Responsible Person for Fire Safety must be located at the project/fixed premise other than for transient projects or those with remote facilities. |
|  | **FIRE RISK ASSESSMENT** |
|  | All Projects/Offices/Factories and Depots must have a fire risk assessment produced by a competent Fire Risk Assessor, see Appendix 1. |
|  | The Responsible Person for Fire Safety must review the project/office/factory/depot to determine the complexity of risk assessment required. Where this review identifies that the assessment is basic, the template fire risk assessment and plan ([HSF-TF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8141) ) must be used. Where this review identifies that the assessment will be more than basic, the [Balfour Beatty Fire Protection Services Team](https://home360.balfourbeatty.com/services/bms/Pages/BB-Fire.aspx) and HSES Advisor must be contacted for advice on appointment of a competent Fire Risk Assessor. |
|  | For a construction project requiring intermediate or complex assessment, the Fire Risk Assessor must liaise with the fire permanent works designer and make an initial assessment to identify the procurement needs for temporary fire controls that will be required, such as temporary fire doors. |
|  | Where construction of timber frame buildings is planned, the Fire Risk Assessor must pay particular attention to the separation distances set out in the Structural Timber Association publication design [guide](http://www.structuraltimber.co.uk/library) to separating distances during construction to control off-site fire risks and any procurement requirements for temporary fire rated protection on incomplete external surfaces. |
|  | The Fire Risk Assessment must identify sources of potential ignition, firefighting run off, external fire hazards, including materials and waste, the people at risk (including young or disabled), including those occupying adjacent buildings, and must indicate the steps required to remove or reduce the risk of those hazards causing harm as far as is reasonably practicable. It must also determine what is necessary to ensure that all occupants are alerted and can leave the premises safely in the event of a fire. |
|  | A review of the fire risk assessment by a competent person must be completed annually, when there is reason to suspect that it is no longer valid, following an accident, incident or near miss, or when there has been a significant change which may affect fire safety. Any updates must be communicated to all relevant personnel ([HSF-TF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8141)).  Construction project Fire Risk Assessments must be reviewed by the Responsible Person for Fire Safety on a monthly basis along with the Project Management Plan ([PRM-PR-0001](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-9010)) and Fire Safety Plan. Any changes must be referred to the Fire Risk Assessor. |
|  | A copy of the Fire Risk Assessment and Fire Safety Plan must be available at the workplace to which it refers. |
|  | A copy of the completed fire risk assessment for permanent offices and facilities must be uploaded onto [My-Compliance](https://home360.balfourbeatty.com/roommanager/Pages/UKProperty.aspx). Contact UK Property Team [FM Lead](https://my360.balfourbeatty.com/Person.aspx?accountname=i%3A05%2Et%7Cbalfour%20beatty%20federation%20hub%7Ckarl%2Eweston%40balfourbeatty%2Ecom) to obtain username/password. |
|  | **FIRE SAFETY PLAN** |
|  | The Fire Safety Plan must incorporate the control measures from the fire risk assessment, including fire prevention and emergency arrangements. Sketches and drawings generated for the plan must be prominently displayed at each fire exit, noticeboards, fire points and included within induction. |
|  | A review of the Fire Safety Plan by a competent person must be completed annually (monthly for construction projects), when there is reason to suspect that it is no longer valid, following an accident, incident or near miss, or when there has been a significant change which may affect fire safety. Any updates must be communicated to all relevant personnel ([HSF-TF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8141)). |
|  | Arrangements for persons needing assistance or support in the event of an evacuation must be assessed in accordance with the Emergency Arrangements procedure ([HSES-PR-0003](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-5162)) |
|  | **GENERAL** |
|  | The Fire Marshal role is required on a full time basis and the Responsible Person must ensure that sufficient Fire Marshal(s) are appointed to provide cover where employees work part time and/or to cover periods of leave. |
|  | Weekly fire inspections for all areas at the location must be carried out and recorded ([HSF-SF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8134)) by an appointed Fire Marshal to ensure that where relevant the following timescales have been adhered to: |
|  | * Fire Call Point – Weekly test * Fire doors – 6 monthly inspection |
|  | * Fire Extinguishers – Annual service |
|  | * Alarms & Detectors – 6 monthly test |
|  | * Emergency Lighting – function test monthly, with full rated duration test annually. |
|  | All fire extinguishers, emergency lighting, detectors and alarms must be commissioned and checked on delivery to site, installed, inspected, tested and maintained by Company approved supply chain partners or the [Balfour Beatty Fire Protection Services Team](https://home360.balfourbeatty.com/services/bms/Pages/BB-Fire.aspx). In situations where it is not possible to exclude individuals from the workplace during the emergency lighting full rated duration test and recharge period, alternative measures such as portable emergency lighting must be provided. |
|  | A building/depot fire evacuation drill must be carried out at the earliest possible opportunity following initial site set-up or building occupation, t and repeated at intervals not exceeding six months ([HSF-SF-0009b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8135)). Projects identified through risk assessment with a high fire risk potential must consider increasing the frequency of the fire drills. |
|  | The following specific requirements must be met: |
|  | * Hand bells and hand klaxons are not used as fire alarms |
|  | * Deliberate burning of materials is not undertaken |
|  | * Fuel storage containers are only used in accordance with the reference material for Storage of Fuels (see 15.7) |
|  | * Portable Halogen lamps are not used. |
|  | * Designated areas for smoking are established and regularly inspected * The use of LPG as a fuel at an office or welfare facility (excluding caravans) is prohibited. |
|  | All fire extinguishers at Company sites/projects/offices and facilities must be selected and positioned in accordance with BS5306-8 and maintained in accordance with BS5306-3. |
|  | All fire alarm/detection systems installed at Company site offices, project offices, TAUs, permanent offices, temporary offices and facilities must be compliant with BS 5839-1. As a minimum this must be category L3 (automatically operated and installed to protect escape routes and rooms opening onto those routes).Where determined by the Fire Risk Assessment, more onerous requirements may take precedence, or, where a Project is in the construction phase (pre-containment and additional of fire loading), a system to BS 5839-1 L5 may be installed. The system can be hard wired or radio linked of proven reliability and or in accordance with EN54 Part 25, spacing to be in line with travel distance and manufacturers requirements. |
|  | Clear signage must be installed and maintained (in accordance with The Health and Safety [Safety Signs and Signals] Regulations, BS5499-4 and BS5499-10) in prominent positions, indicating the location of fire access routes, escape routes and position of fire extinguishers, safety signs and muster points. |
|  | Any temporary Site/Project Office Accommodation built within an offsite existing structure (such as a railway arch) must also comply with Building Regulations. |
|  | Refuelling operations must be undertaken in accordance with the Plant procedure ([HSF-PR-0046](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7786)). |
|  | **SHARED PREMISES – OTHER PARTIES OWNED BUILDING** |
|  | Before occupancy, a copy of the existing fire risk assessment and fire safety plan/emergency plan for the premises must be obtained and used as the basis for the Company version. |
|  | All relevant personnel must be briefed on the contents of the fire risk assessment and fire safety plan. |
|  | Any updates to the assessment and fire safety plan are communicated to all relevant parties, including any changes in company activities that may affect the fire safety of the location. |
|  | **INTERFACE WITH FIRE AND RESCUE SERVICE** |
|  | The Responsible Person for Fire Safety must communicate with the local Fire and Rescue Service to advise of the non-transient site/office/factory/depot and of the following information ([HSF-TF-0009b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8137)): |
|  | * Fire and rescue service access, firefighting shafts, fire lifts and temporary hoist facilities; |
|  | * Dedicated emergency escape routes, staircases and final exits; |
|  | * Positions of dry/wet riser inlets/outputs and locations of hydrants; |
|  | * Fire points, alarm panel, call points and detectors; |
|  | * Temporary building(s) and stores within buildings; |
|  | * Location of hazardous items, e.g. flammable liquids, gas cylinders, gas mains, electrical risers, temporary holes in floor slabs, emergency gas cut off etc. |
|  | * Any other fire provision relevant to the location/works being undertaken. |
|  | **HOT WORKS** |
|  | A Hot Works Responsible Person must issue Hot Work Permits and must not be involved in carrying out the work for which the permit is issued. The permit must only be issued after the HWRP has physically checked that the precautions detailed on the permit are in place. |
|  | Persons undertaking hot works must have the knowledge and understanding of how to use a suitable fire extinguisher and must wear suitable intrinsically Flame Retardant (FR) upper and lower body PPE. Two piece PPE (trousers and long sleeve tops) is acceptable, although one piece overalls are the preferred option ([HSF-PR-0048](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8083)). |
|  | Hot Work Permits ([HSF-SF-0009c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8136)) must be applied in all situations where heat, sparks or flames may be generated and create a source of ignition. Hot Work Permits are not required where an area is specifically designed for this purpose, for example factory welding workshops. |
|  | The Permit must be raised and closed by the Hot Works Responsible Person. A register of Hot Work Permits ([HSF-TF-0009c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8138)) is provided for use if required. |
|  | Hot Work permits will be valid for a fixed period of time (maximum 1 working day/shift) and for a specific time-bound task and location, both being recorded on the permit. If a Hot Work permit is required for a longer timeframe, the original permit will be cancelled at the end of the fixed period of time, and a new one issued. Where a site will close, the hot work must be planned to take place early in the shift to allow the fire watch time of at least 2 hours. |
|  | No combustible liquids (petrol/diesel etc.) or are permitted within 6m of the hot work operation. Avoid taking tar boilers and similar equipment onto roofs. If this cannot be avoided they should be placed on a non-combustible insulating base to protect the roof from ignition. LPG cylinders should be kept at least 3 m from the burner or boiler, or be protected by an appropriate heat shield. |
|  | Any combustible material within 6m of the operation that cannot be moved must be protected from heat and sparks. |
|  | Fire extinguishers must be present at all times during the hot work operation. The type of fire extinguisher will be detailed in risk assessment for the task being completed. |
|  | In the event of a metal spill when using an Aluminothermic Welding process, **Water or AFFF Extinguishers must not be** **used**; the flow of molten steel or slag will be contained using sand and sand trays. |
|  | Any area specified in a hot work permit must be subject to a continuous fire watch for at least 60 minutes after completion of the hot work and the area carefully inspected at regular intervals for at least a further 60 minutes before closing the permit. The HWRP must check the location of the work before signing the permit off at the end of the specified fire watch period. |
|  | Any isolated automatic fire alarm and detection systems must be reinstated before the permit is signed off.  A copy of the permit will be displayed on site, held by the Hot Works Responsible Person and the person carrying out the works whilst it is still live. |
|  | **STORAGE AND USE OF FLAMMABLE GAS/LIQUIDS AND WASTE** |
|  | Gas cylinders must be stored in accordance with the Gas Cylinders procedure ([HSF-PR-0012](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-6441)). |
|  | Flammable gases and liquids must not be mixed together when in storage areas. |
|  | On construction sites, quantities of flammable liquids stored over and above the working day’s supply must be kept to the minimum and for high risk buildings, must be sited at least 20m, or as far away as is reasonably practical, from permanent, under construction or temporary buildings. |
|  | Containers and drums of flammable liquid or gas cylinders must not be stored within 10m of any building or boundary fence (and in no circumstance closer than 4m) unless the boundary is a wall at least 2m high and constructed to provide a minimum of 30-minutes' fire resistance. In the latter case, containers and drums should be at least 1m below the top of the wall. |
|  | At the end of each day flammable liquids must be removed from the work place to the storage area. |
|  | All combustible waste and recycling should be minimised and kept outside of buildings. All waste packing materials, wood, shavings and oily rags must be removed from the workplace at least once a day. Storage containers for such articles must be covered; fire resistant and securely contained (e.g. covered metal skips). |
|  | Purpose designed petrol storage containers must be used. The general principles for the design and manufacture of portable petrol storage containers require that they must:   * have a nominal capacity: * no greater than 20 litres if made of metal; * have a total capacity between 10% and 15% more than the nominal capacity; * be designed and constructed so that: * they are reasonably robust and not liable to break under the normal conditions of use; * the escape of liquid or vapour is prevented; * petrol can be poured safely from them; * they are not unsteady when placed on a flat surface; * be marked or labelled in a legible and indelible form with: * the words ‘PETROL’ and ‘HIGHLY FLAMMABLE; * an appropriate hazard warning sign; * the manufacturer’s name and the date and month of manufacture.   The HSE [Portable Petrol Storage Containers Guidance](http://www.hse.gov.uk/fireandexplosion/portabable-petrol-storage-containers.pdf) sets out the general principles for the design and manufacture of portable petrol storage containers with specific guidance for the design and construction of plastic and metal containers respectively. |
|  | Where a potentially explosive atmosphere may occur, for example while storing dangerous substances or refuelling activities, the requirements of the [Dangerous Substances and Explosive Atmospheres Regulations](http://www.legislation.gov.uk/uksi/2002/2776/contents/made), 2002 (DSEAR) will apply (see [HSF-PR-0025](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-6931)). The risks from flammable substances must be assessed and eliminated or reduced in accordance with the hierarchy:   * eliminate or substitute flammable substance (i.e. utilise plant/equipment that does not require fuelling); * reduce risk of explosive atmosphere; * Mitigate remaining risk with engineering controls and safe systems of work |
|  | Refuelling of plant and tools must be carried out in accordance with section 9 of the ‘Plant’ procedure ([HSF-PR-0046](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7786)) and must wear suitable intrinsically Flame Retardant (FR) upper and lower body PPE. Two piece PPE (trousers and long sleeve tops) is acceptable, although one piece overalls are the preferred option ([HSF-PR-0048](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8083)).. |
|  | PPE contaminated by any spillage of fuel must be immediately removed and replaced. PPE contaminated by fuel should be disposed of in accordance with contaminated waste in accordance with [ENV-RM-0035a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8609). |
|  | **TEMPORARY SITE/PROJECT ACCOMMODATION/BUILDINGS** |
|  | Temporary buildings must be separated from the building under construction (or other permanent buildings) to provide a minimum fire break of 10 metres, or 20 metres where a high risk timber frame structure is being constructed. If these controls cannot be implemented due to the constraints of the site, a specific Fire Risk Assessment must be undertaken, and the control measures implemented. |
|  | Temporary Buildings located on jacklegs, or raised above ground level, must have the space beneath enclosed to prevent an accumulation of rubbish, whilst still maintaining under-floor ventilation. Combustible materials must not be stored beneath, on top of, or between any Temporary Buildings. |
|  | All heaters must be properly installed, thermostatically controlled and maintained. They must be fixed to the wall above floor level and be fitted with securely fixed metal guards. Clothing must not be placed over or directly above wall heaters. |
|  | In areas used for cooking Automatic Fire Detection Systems must be installed and CO2 extinguishers available, as set out in the Fire Risk Assessment. |
|  | Where purpose-built temporary sleeping accommodation is provided within the site’s boundaries fire detection must be linked between the sleeping accommodation and other temporary buildings by means of hard wired or Cat 1 radio linked installed to a **minimum** class L1 automatic fire detection system. For Caravans, see the Caravan Parks procedure ([HSF-PR-0010](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1111)).  Sleeping must not be allowed on-site in any other circumstances even if the nature of the project means it might be available, for example sequential refurbishment of apartments in a residential block where we have been given control and permission by the client. |
|  | CO2 extinguishers must be located adjacent to electrical distribution panels. |
|  | Combustible construction materials must not be stored in temporary buildings unless the temporary building is designed as storage facility. |
|  | Where temporary buildings are stacked, the roof/floor assembly, and members supporting it, must achieve at least 30 minutes fire resistance (integrity, insulation and load bearing capacity) to EN13501\* and comply with Building Regulation requirements. \* BS476 can be used subject to approval within the fire risk assessment |
|  | **TEMPORARY BUILDINGS - SPECIAL CONDITIONS** |
|  | Where temporary buildings are to be positioned in a location which has a fire break of less than 6  metres or where they are located within another building the following must be applied: |
|  | All internal walls, ceiling surfaces and external surfaces of walls must have Class 1 surface spread of flame performance in BS476 Part 7. External surface of roof must meet Class AA in BS476 Part 3. |
|  | Walls and roof must achieve 30 minutes Fire Resistance (integrity and insulation) to BS 476 Parts 20 and 22; roof to be tested from below. |
|  | Doors and windows to achieve 30 minutes Fire Resistance (integrity) to BS476 parts 20 and 22. |
|  | **TIMBER FRAME BUILDINGS** |
|  | All subcontractors engaged to construct Timber Frame structures must be members of a relevant trade association or the Structural Timber Association.  During design, reference must be made to the Structural Timer Association publication design guide to separating distances during construction [insert link] to mitigate off-site fire risks. |
|  | Where multiple large timber-framed structures are being built on one site, the period of maximum vulnerability during which fire may spread from one to another is the time when the structures are incomplete. This hazard must be considered in detail during design and planning and minimised as part of the fire risk assessment and in compliance with the UK Timber Frame Association (UKTFA) 16 steps to fire safety[add link]. Suitable sequencing may be appropriate to provide a fire break by separating incomplete structures from those which are completed, with fire-rated facades. |
|  | The building should be compartmentalised and fire-stopped (temporary or permanent) vertically and horizontally at the earliest stage practicable irrespective of cost. This should include builders work holes, openings in compartment walls, party walls, stairwells, service risers, lift shafts, roof voids and other fire-rated sub-compartments throughout the building. Wherever possible this compartmentalising should take the form of the final, permanent fire-resisting doors, panels and fire-stopping. |
|  | In cases where it is not possible to fit the final materials early in the construction process, suitable temporary arrangements should be made in order to reduce the spread of fire and smoke up a building through unstopped ducts and shafts. Consideration should then be given to fitting temporary horizontal fire rated boarding as work progresses. |
|  | The final cladding to a building should be put in place as early as practicable irrespective of cost. |
|  | Serious consideration should be given to mitigating fire damage and the spread of fire to adjacent structures by facing exposed timber construction and combustible insulation with fire-rated boarding at the earliest opportunity. The use of fire-rated boarding may be extended to protect windows and door openings not required as means of escape. This approach also provides significant security benefits. |
|  | Generators and similar static heat producing equipment should not be used in structures where the timber frame is exposed. |
|  | Refuelling of equipment must be undertaken outside any timber frame structure and in a designated refuelling/storage area located at least 20m from the building. |
|  | Temporary buildings closer than 20m to the timber frame structure must be of non-combustible construction. Wherever temporary buildings have to be located closer than 20m to the structure, the safe distance must be determined by a life and property fire risk assessment carried out by a competent person and fire rated/certificated temporary buildings used. |
|  | Heating, drying and dehumidifying equipment must be restricted to 110V blown air type, be protected by an RCD and be removed from the structure outside working hours. |
|  | Automatic fire detection must be provided; these systems must be linked to an alarm receiving centre unless there is a 24-hour security presence on site. |
|  | The use of foam plastic materials on site should be minimised. |
|  | Hot work on timber frame construction sites should be minimised. Where hot work cannot be avoided, in addition to the standard controls for hot work, the area in which the work will be undertaken must have fire compartmentalisation complete and must be continually monitored for at least one hour following completion of the hot works and be visited two hours after completion prior to closing the permit. |
|  | **TEMPORARY COVERING MATERIALS** |
|  | When finished surfaces, fittings or expensive items of plant and machinery incorporated into a building are to be temporarily protected during construction or refurbishment, then, in selecting a protective covering material, regard must always be paid to the relative fire load and the potential for fire growth and spread. |
|  | Where flexible protective covering materials are used, these must conform to the requirements of the Loss Prevention Standard LPS 1207: Fire Requirements for the LPCB Approval and Listing of Protective Covering Materials or equivalent standard. The materials shall be manufactured in accordance with a quality assurance and certification programme and the manufacturer shall be certified by a third-party approval body accredited by the United Kingdom Accreditation Service. The relevant approval mark shall be printed on the material. |
|  | When flexible materials, including decorative films are used to clad scaffolding or temporary/ permanent steel work these materials must conform to the requirements of LPS 1215: Requirements for the LPCB Approval and Listing of Scaffold Cladding Materials equivalent standard (for example, ref. 16). The material shall be manufactured in accordance with a quality assurance and certification programme, and the manufacturer shall be certified by a third-party approval body accredited by the United Kingdom Accreditation Service. The relevant approval mark shall be printed on the material. |
|  | When overprinting of materials with advertising or images occurs it must not have a detrimental on the material’s fire performance. Confirmation of this should be sought through the certification body. |
|  | Flame retardant covering material can still burn; therefore at least one fire escape stairway should be kept free of all protective coverings. |
|  | **HIGH RISE CONSTRUCTION (ABOVE 18m)** |
|  | Fire risk assessment for high rise construction should be undertaken after consulting with the Fire and Rescue Service and before work commences. above 18m. Emergency procedures must be prepared and reviewed to ensure that arrangements for safe evacuation are maintained commensurate with the number of persons and any possible injuries and the stage of construction |
|  | Fire doors with self-closers must be fitted to protect the escape stairs in accordance with the findings of the fire risk assessment. These must be in place when the structure reaches 18m. |
|  | At least one means of access should be designated for firefighting access, for the exclusive use of the fire service during the course of an emergency. Any firefighting lifts included in the design of the building should be commissioned and brought into service at the earliest stage practicable irrespective of cost. |
|  | The building should be horizontally fire compartmentalised at intervals not exceeding 10 floors, to prevent the upward (or downward) spread of smoke and flames. This should be done at the earliest practical opportunity after construction of each of the relevant floors, using temporary or permanent fire-stopping materials having no less than 30-minutes' fire resistance. All holes, shafts and openings should be closed off, including service risers, lift shafts and stairwells. Temporary fire-stopping can be removed to allow construction operations in the area to be carried out, but must be replaced whenever work stops. It should not be left out of place outside site working hours i.e. at night and at weekends. |
|  | Atriums, stairways, lift shafts and shafts used for crane towers need not be vertically divided at intervals not exceeding every 10 floors provided that all openings to floors are fitted with doors with self-closers to provide at least 30-minutes' fire resistance. All other openings between floors and stairways, lift shafts and crane tower shafts should be fire-stopped as indicated above. |
|  | Risers, shafts, ducts and similar openings between floors should be closed off with doors having 30-minutes' fire resistance, to separate them from the floors, and must be fitted at all levels. These doors should be treated in the same way as the temporary fire-stopping mentioned above i.e. only opened on any given floor when work is actually in progress inside the shaft at that level. |
|  | During the construction phase, electronically operated fire alarm systems must be provided throughout the height of the building, comprising break-glass/sensor type (or similar) call-points and sounders on all levels, plus a link to a permanently occupied security office (or similar) with a fire alarm panel indicating which zone the alarm is activated.  All components or all parts of the system must have battery back-up to ensure continuity of operation in the event of a loss of power supply. |
|  | When work reaches a height of 50 metres, a wet riser must be provided, fed by duplicate pumps as set out in BS 9990: Code of practice for non-automatic fire fighting systems in buildings (ref. 35) to provide water in sufficient quantities and at sufficient pressure for effective firefighting. Suitable and sufficient water and power supplies must be available before commencement on site to allow the operation of the wet riser during the construction programme. |
|  | An annual check must be undertaken by a competent person of the complete system (fire detection, alarms, extinguishers and escape equipment, emergency lighting) and fire extinguisher/firefighting equipment. All equipment must have the date of the last inspection by a competent person recorded on them. |

| **ABBREVIATIONS / DEFINITIONS** | | | |
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| **FIRE ALARM SYSTEM** | | Any means given for detection and warning of a fire on site, these may be hard wired or wireless systems conforming to ETSI EN 300 220 and based upon project specific risk assessment and comply with BS5839-1. | |
| **TEMPORARY BUILDING** | | Prefabricated cabins, site huts, cargo containers, caravans, portable and sectional buildings brought onto site for use as offices, stores, workshops, sleeping accommodation and welfare facilities during the project | |
| **LPG** | | Liquefied Petroleum Gases | |
| **LPS** | | Loss Prevention Standard | |
| **COMPLEX/HIGH RISK PREMISES/PROJECT (FIRE RISK ASSESSMENT)** | | Construction of all timber framed buildings, all buildings over 18m high, complex demolition projects with an initial contract value of £20m or more, projects where initial assessment indicates potential for significant loss of life or property, where our activities have significant impact on the existing fire control measures and plans in adjacent/attached buildings, non-compartmented buildings, and other complex buildings and structures e.g. transport hubs, pipelines, tunnels, shafts, ships, and existing buildings with multiple sources of uncontrollable ignition and flammable high risk materials and flammables substances,. | |
| **REASONABLY PRACTICABLE** | | Balancing the level of risk against the measures needed to control the real risk in terms of money, time or trouble. However, you do not need to take action if it would be grossly disproportionate to the level of risk. | |
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| **INPUTS** | | | |
| **Reference** | **Type** | | **Title** |
| [HSF-PR-0010](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-1111) | Procedure | | Caravan Parks |
| [HSES-PR-0003](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-5162) | Procedure | | Emergency Arrangements |
| [HSF-PR-0012](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-6441) | Procedure | | Gas Cylinders |
| [HSF-PR-0018](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-7016) | Procedure | | CDM Regulations |
| [DES-PR-0022](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-5575) | Procedure | | Design Risk and Opportunity |
| [QUA-PR-0202](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-12519) | Procedure | | Permanent Works Fire Safety |
|  | [Legislation](http://www.legislation.gov.uk/ssi/2006/456/contents/made) | | Fire Safety (Scotland) Regulations (as amended by The Fire Safety (Scotland) Amendment Regulations 2010) |
|  | Legislation | | [Regulatory](http://www.opsi.gov.uk/si/si2003/20032457.htm) Reform (Fire Safety) Order 2005 (England & Wales) |
|  | [Legislation](http://www.irishstatutebook.ie/eli/1981/act/30/enacted/en/html) | | The Fire Services Act 1981 & 2003 (Republic of Ireland) |
|  | Legislation | | [The Fire Safety  Regulations 2010 (Northern Ireland)](http://www.legislation.gov.uk/nisr/2010/325/contents/made) |
|  | [Legislation](http://www.legislation.gov.uk/uksi/2002/2776/contents/made) | | Dangerous Substances (Explosive Atmosphere) Regulations (DSEAR) |
| HSG168 | HSE guidance | | Fire safety in Construction |
|  | Industry Guidance | | [Structural Timber Association](http://www.structuraltimber.co.uk/index.php?&path=library&page=2#filters) 16 Steps to fire safety and Design Guide During Construction to Separating Distances for Timber Frame Buildings |
|  | Code of Practice | | Fire Prevention on Construction Sites ([JCOP)](http://www.thefpa.co.uk/shop/shop_product_details.EAC93171-BAEA-45D1-95784B50DCA27065.html?shop_category=DEC2ADFB-B816-4043-B83BB310703D36B8) 9th Edition |
|  | External Guidance | | Fire Risk Assessment Competency Council - [A Guide to Choosing a Competent Fire Risk Assessor](http://www.cfoa.org.uk/download/58604) |

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| **OuTPUTS** | | | |
| **Reference No.** | **Document Title** | **Retention Period** | **Responsibility** |
| [HSF-TF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8141) | Fire Risk Assessment and Fire Safety Plan | 3 years | Responsible Person |
| [HSF-TF-0009b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8137) | Letter to Fire and Rescue Services | 3 years | Responsible Person |
| [HSF-TF-0009c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8138) | Hot Work Permit Register | 3 years | Responsible Person |
| [HSF-SF-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8134) | Weekly Fire Safety Inspection Record | 3 years | Responsible Person |
| [HSF-SF-0009b](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8135) | Emergency Evacuation and Drill Response Record | 3 years | Responsible Person |
| [HSF-SF-0009c](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-8136) | Hot Work Permit | 3 years | Responsible Person |
| [HSF-TB-0009a](https://home360.balfourbeatty.com/ghoreferencecentre/Group%20BMS/_layouts/DocIdRedir.aspx?ID=2KHUWT73P6SE-1572-11308) | Fire Precautions | Duration of project | Site Lead |

Appendix 1

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| **FRA Complexity** | **Building/project type** | **Competency** |
| Basic | Construction projects with no enclosed working areas e.g.   * civil, power and rail engineering * local authority road and street maintenance * utility services repair and replacement   Single storey temporary accommodation units more than 10m from any building under construction in outdoor locations | Site Managers Safety Training Scheme qualification (or Company accepted equivalent) |
| Intermediate | Fixed premises including shared and BB-only occupied office buildings  Fixed premises where BBI provide facilities management | * Independent registration with/certification from a body that meets the criteria established by the Fire Risk Assessment Competency Council (Appendix 2) and relevant experience of the building type\* * Fire Protection Association level C06 qualification (BB Fire Services Team) |
| Intermediate | Fixed premises including depots, factories, warehouses including those using or storing flammable gases and liquids | Independent registration with/certification from a body that meets the criteria established by the Fire Risk Assessment Competency Council (Appendix 2) and relevant experience of the building type and process, \* |
| Intermediate | Temporary accommodation units that are:   * stacked beyond a single storey * within 10m of a building under construction * within an existing building or structure | Fire Protection Association level C06 qualification (BB Fire Services Team) |
| Intermediate | Construction projects comprising stand-alone buildings with:   * no significant impact on the FRA and fire safety plans of existing adjacent occupied premises * a permanent works fire strategy comprising compartmentation and no deviation from building standards codes * no floor above 18m from ground level * no basements | Independent registration with/certification from a body that meets the criteria established by the Fire Risk Assessment Competency Council (Appendix 2) and relevant experience of the building type and process, \* |
| Complex | Construction projects that:   * have significant impact on the FRA and fire safety plans of existing adjacent occupied premises * are non-compartmented/have a bespoke permanent works fire strategy that deviates from building standards * have floors above 18m from ground level * contain basements * are in urban areas in close proximity to other occupied buildings * are complex demolition | Graduate membership of the Institution of Fire Engineers plus relevant experience of fire risk assessment for the type and features of the construction project\* |
| Complex/high risk | Construction of:   * rail, bus and air terminals * shopping malls * tunnels, shafts * refurbishment projects * timber framed buildings * Refurbishment of ships | Graduate membership of the Institution of Fire Engineers plus relevant experience of fire risk assessment for the type and features of the of construction project\* |

\* These service may need to be provided by an external consultant

Appendix 2

