



Science and
Technology
Facilities Council

FIRE AND EMERGENCY MANAGEMENT

STFC Safety Code No 32

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1.1	Minor change to Fire Safety Basics	November 2011
1.2	Minor change to section 4.1.3	December 2011
1.3	Minor change to Purpose section	January 2012
1.4	Minor changes to include Comms emergency plan in 4.1.3	October 2012
1.5	Amendments to audit checklist	May 2013
1.6	Document Retention Policy	August 2014
1.7	Revised Fire Alarm System – Isolation Permit	May 2015
1.8	Minor change to 4.1.2 and to New Build Pro-forma	April 2016
1.9	Changes following review by STFC Fire Officers	August 2016
1.10	Minor changes related to the launch of SHE Assure	October 2018
1.11	Add 4.10.5	April 2019
1.12	Removal of references to RAL Klaxon in Appendix 1A	October 2022

STFC's Fire Safety Basics

These basic rules for fire safety will minimise the potential for a fire starting and maximise the safety of all working at STFC sites in the event of a fire.

1. **Fire Awareness:** those responsible for the safety of others must ensure they discuss fire safety arrangements with new starters on arrival;
2. **Fire Alarms:** immediately vacate any building when a fire alarm sounds unless it is part of a planned and communicated test of fire alarm systems;
3. **Smoking:** is prohibited within all STFC buildings - smokers are required to be at least five metres away from any part of any building when smoking, and to dispose of all waste in receptacles provided;
4. **Food preparation:** "open element" grills (including those incorporated in Microwave Ovens), hot plates, gas stoves, burners with naked flames, deep fat fryers etc may only be used in areas controlled by the catering suppliers. By exception they are only permitted in "Offices", "Kitchens" and "Tea/coffee Points" where documented approval has been given by the respective site Fire Safety Advisor;
5. **Heating:** portable "open element" electric heaters are very strongly discouraged. If additional heating is necessary contact Estates Groups who will review heating requirements and may provide enclosed oil filled radiators;
6. **Storage:** In principle, storage of materials in stair wells is prohibited, except by prior documented approval of the Fire Safety Advisor;
7. **Corridors:** escape routes should not be blocked or used as storage areas under any circumstance. No more than ~30% of any corridor walls should be covered by combustible materials for example notice boards, adverts, posters, displays etc;
8. **Doors:** Fire doors should be kept accessible at all times. Fire doors should only be held open by automated devices designed to allow doors to close on alarm. Viewing panels: in office, workshop and laboratory doors should be kept clear above a height of 1.5m (unless specified otherwise in a Risk Assessment), to allow anyone "searching" the building in an emergency to see in;
9. **Ceiling tiles:** All ceiling tiles shall be replaced following work on false/suspended ceilings. Missing or damaged ceiling tiles should be reported to the Estates Groups; and
10. **Vehicle Access:** Only park in designated areas on STFC sites. Never block access routes or positions outside buildings where access may be required in the event of an emergency for the Fire Brigade or Ambulance Service.

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Fire and Site Emergency Management

1. PURPOSE

The ability to respond rapidly and effectively to an emergency is a major factor in preventing injury to persons and minimising loss to property. While there are many potential causes of non-medical emergencies, the most likely is a fire.

Fire safety management systems need to be actively managed to ensure that they are in place, appropriate and operational in STFC buildings. Their effectiveness depends critically on:

- those responsible for the maintenance and operation of fire safety management systems: AND
- those occupying buildings following procedures and ensuring that fire safety management systems are not compromised.

Good management of fire safety is essential in preventing fires and if they do occur ensuring they are contained, controlled and ultimately extinguished quickly, effectively and safely.

The Regulatory Reform (Fire Safety) Order 2005 requires the Employers, Building Owners or others in control of premises to manage the risk of fire, so far as is reasonably practicable, in order to ensure the safety of relevant persons on its sites. The Management of Health and Safety at Work Regulations 1999 require that steps are taken to mitigate the issues that may arise from reasonably foreseeable emergencies.

STFC's planned response to general emergencies, for example gas releases, explosions, environmental incidents, will ensure that the impact of the emergency to its people and property is minimised.

This code addresses the statutory obligations under defined in the Regulatory Reform (Fire Safety) Order 2005 with respect to the management of emergencies, especially fires, and the provision of resources to deal with them effectively.

2. SCOPE

This Code applies to STFC managed sites and STFC staff, contractors, visitors, tenants and facility users working at STFC managed sites and buildings.

This code does not apply at STFC's Swindon Office (SO) where the STFC is a tenant. STFC staff working at SO follow the Fire and Emergency arrangements established by Joint Building Operations Services (JBOS).

Related STFC SHE Codes include:

- STFC SHE Code 5: Incident Reporting and Investigation;
- STFC SHE Code 15: Management of Contractors;
- STFC SHE Code 10, Provision of SHE training;
- STFC SHE Code 20, Controlling Explosive and Flammable gases and dusts;
- STFC SHE Code 36, First Aid Management; and
- STFC SHE Code 19, Work on buildings, premises, services and infrastructure.

3. DEFINITIONS

3.1 Building Fire Manager (BFM)

A manager appointed by their Director, to act as a focus for fire related safety issues within a building from the building users' perspective, and to lead regular reviews of the management of fire safety within a designated building(s). In some cases, there will be more than one BFM for a building or if appropriate a BFM may be appointed for several buildings.

3.2 Building Warden

An STFC member of staff appointed by their Director or a tenant staff member appointed by their organisation to carry out defined duties in the event of a fire alarm or Site Emergency in their building. **Detailed Building Warden responsibilities under fire or emergency conditions are site specific.** These duties are written down and recorded and can be found in Appendix 1.

3.3 Hot Works Permit Issuer

An STFC authorised member of staff appointed by their Director to issue Hot Works Permits for work in specified areas within their Department.

3.4 Other Personnel with duties in an Emergency.

- RAL - Alarm Investigation Team (AIT), Security Teams (ST) and Emergency Controllers (ECs)
- DL - Emergency Team (ET), Site Controllers (SC) and Senior Site Controllers (SSCs)
- UKATC team - Incident Control Officers (ICO).

Teams of STFC members (or individuals), for example: site security staff, control room staff and others who deliver a first response in the event of an emergency. **Detailed responsibilities for these roles under emergency conditions are site specific.** These duties are written down and recorded in their respective site emergency plans, and where appropriate to this code can be found in Appendix 1.

3.5 Estates Team

This is a generic term used to identify those groups responsible for the operation and maintenance of a site's Critical Fire and Emergency Safety Systems (see 3.7) and infrastructure at STFC owned or operated sites.

Specifically:

- At RAL (including the Cosener's House and Chilbolton Observatory) the Estates Services Group undertake this role;
- At DL it is the Estates Management Group; and
- At the UKATC it is the Premises Department.

3.6 Fire Risk Assessment

Undertaken by a competent person, typically the Fire Safety Advisor, in conjunction with building occupiers/users, a Fire Risk Assessment (FRA) considers:

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- The fire hazards in a specific location;
- Who might be affected by those hazards and how;
- The control measures in place; and
- What is required to ensure that the risks to people are minimised, and that buildings meet acceptable fire management standards.

FRA's must be documented and maintained to reflect changes to the infrastructure and use of buildings, fire incidents and legislative or other changes to building fire management standards. They are stored in Evotix Assure the STFC SHE document management system.

3.7 Critical Fire and Emergency Safety Systems

Those component parts of a building, and subsequent changes to a building, that exist to provide protection or warning in an emergency.

Examples of such systems and components include but are not limited to:

- Klaxons and public address systems;
- Manual call points;
- Fire (Smoke or Heat) detection;
- Emergency lighting;
- Building Management Systems;
- Building compartmentation;
- Emergency exits;
- Fire Doors;
- Fire Extinguishers and Fixed Extinguisher Systems (connected to the Fire Alarm System);
- Fire alarm sounders;
- Power off systems; and
- Local ventilation shut down systems.

3.8 Personal Emergency Evacuation Plan

The arrangements in place to ensure a disabled person (this includes someone who is temporarily disabled with restricted mobility), can get to a temporary place of safety in the event of an emergency, Refuges. Further guidance on undertaking a PEEP assessment and creating a PEEP can be found on the Forms and templates web page.

3.9 Contract Supervising Officer (CSO)

See definition 3.1 in STFC SHE Code 15 (Management of Contractors).

3.10 Contractor

See definition 3.2 in STFC SHE Code 15 (Management of Contractors).

4. RESPONSIBILITIES

4.1 Director Responsible for SHE shall:

- 4.1.1 Ensure that a documented Site Emergency Plan is developed, maintained and implemented for each STFC site. The content of the plan shall include but is not limited to:
- Defining the management chain to be established in the event of an emergency and the names of those trained to undertake the roles detailed;
 - Contact details for local emergency services, regulatory authorities, HR (Human Resources), Communications staff (internal and external/press) and communications staff, and other persons or organisations as required;
 - Training requirements for those with defined roles in the Site Emergency Plan; and
 - Procedures to follow with respect to significant and foreseeable emergency scenarios. Examples might include: the response to a fire alarm (including the assessment of whether an alarm is real or false), and procedures for evacuating the site.
 - Links to related emergency plans for example the STFC Communication Emergency plan, Business Continuity plans etc.
- 4.1.2 Ensure that persons with responsibilities defined in the Site Emergency Plan (e.g. AIT members and Emergency Controllers at RAL, ERT members and ICOs at DL, ICOs at ROE) are appointed and that they attend any required training.
- 4.1.3 Ensure that Site Emergency Plans, including STFC Communication Emergency Plans, are tested **annually** in a credible scenario which is relevant to the sites' major health, safety and environmental hazards. Exercises may be paper based or simulated to test the plan's effectiveness, identify and resolve deficiencies in the plan, and act as refresher training for those with responsibilities in the plan.
- 4.1.4 Ensure that the Site Emergency Plan is reviewed and updated at least annually in the light of learning from planned exercises, actual emergencies or changes to site hazard profiles and external emergency service provision to the site.
- 4.1.5 Appoint sufficient competent Fire Safety Advisors for each STFC site, see Appendix 5 for details of the required training, recording their appointment in the STFC SHE Directory, which will generate an appointment in writing.

4.2 Directors shall:

- 4.2.1 Appoint Building Fire Managers for buildings in which staff from their Department are located, recording their appointments in the STFC SHE Directory, which will generate appointments in writing. Where building occupancy or responsibility is shared between Departments, the Fire Safety Advisor should be consulted to ensure coverage is agreed formally.
- 4.2.2 Appoint sufficient Building Wardens as determined by guidance from the Fire Safety Advisor - for each building they are responsible for and/or occupy and ensure that records of their appointment are maintained in the STFC SHE Directory, which will generate appointments in writing.

- 4.2.3 Appoint Hot Works Permit Issuers for defined areas within their Department, recording their appointments in the STFC SHE Directory, which will generate appointments in writing.

4.3 Building Fire Managers shall:

- 4.3.1 Act as the focus for fire safety management matters, from the user perspective, in the building for which they are appointed. This includes ensuring that building occupants are aware of their appointment and role; liaising regularly with building occupants to ensure that any new processes, procedures and equipment, changes of use of any parts of the building, etc, are assessed from a fire management perspective; and as appropriate initiating amendments to the Building Fire Risk Assessment (in liaison with the Fire Safety Advisor and Estates).
- 4.3.2 Attend, and as appropriate chair, the annual Building Fire Review meeting to review Fire Risk Assessments (FRAs) and general fire safety issues within their designated building(s).
- 4.3.3 Ensure that they consult with the Fire Safety Advisor on the fire safety implications of any proposed changes in the structure or use of their building(s).
- 4.3.4 Monitor completion of the actions arising from their FRAs and building reviews, highlighting issues to the relevant Director as appropriate.

4.4 Building Wardens shall:

- 4.4.1 Attend all training detailed in Appendix 5.
- 4.4.2 In the event of an emergency or fire evacuation drill, carry out their duties as defined in the relevant section of Appendix 1, without putting themselves at significant additional risk.
- 4.4.3 Inform their Manager/Director and SHE Group when they move buildings on a permanent basis, or for any other reason cannot undertake their role as building warden for the areas they cover, and when such changes occur ask their Departmental Safety Contact or Director's PA to update their entry in the STFC SHE Directory accordingly.

4.5 Estates Teams shall:

- 4.5.1 Ensure that all site infrastructure whose functions are detailed in or are assumed by the Site Emergency Plan or building FRAs, including but not limited to 'Critical Fire and Emergency Safety Systems' (except Fire Extinguishers), see 3.7, are:
- Installed and maintained according to relevant guidance and best practice, and documented records of such are retained (See guidance in Appendix 4);
 - Inspected and tested regularly in line with the relevant guidance for example Approved Codes Of Practice (ACOPS see section 5 and Appendix 4), and documented evidence of such testing retained; and
 - Rectify reported faults in such systems within a timescale commensurate with the risk.
- 4.5.2 Ensure that any modifications to site infrastructure or emergency access routes that impact the operation of the site Emergency Plan, the controls detailed in building FRAs or 'Critical Fire and Emergency Safety Systems' are reviewed with the Fire

Safety Advisor prior to implementation and inform Building Fire Managers where appropriate.

- 4.5.3 Where work is planned which affects the functionality of the 'Critical Fire and Emergency Safety Systems' in any building, bring this information to the attention of the building's occupants, the Fire Safety Advisor, the Building Fire Manager and Security.
- 4.5.4 Where work on new or refurbished/modified buildings affects the controls detailed in FRAs, ensure that approval of the Fire Safety Advisor is sought prior to work taking place. (See Appendix 4 for New Build/ Refurbishment Sign Off checklist).
- 4.5.5 Include up-to-date details of the 'Critical Fire and Emergency Safety Systems' (see 3.7) in Building Drawings.
- 4.5.6 Endeavour to minimise the generation of fire false alarms through the management of all works, particularly those undertaken by contractors. Where possible ensure that building fire management systems remain operational at all times:
 - Where this is not possible the status of the fire detection/alarm system should be discussed with the Fire Safety Advisor/SHE Group and brought to the attention of the Building Fire Manager and all occupants.
 - All isolations must be carried out under a 'Permit to Work – Fire Detection System' (given in Appendix 2) issued by an approved/authorised person from Estates teams. Under defined circumstances, Estates teams may authorise other department's competent staff to carry out isolations. This permit must be completed and signed off by the relevant persons.
 - The permit must be prominently displayed at the fire panel for the duration of the work and removed upon completion of the works.
 - If the reason for the isolation / disablements is because the work specified on the Permit is likely to generate dust or fume then in addition to isolation a numbered Red/Orange cap should be fitted to heat/smoke detectors to prevent the device from becoming dirty or contaminated. The cap will be issued by the person issuing the Permit. This action, and the cap number shall be recorded on the Permit and return of the permit should confirm that caps have been removed on completion of the work. Only caps managed and controlled by Estates groups shall be used.

4.6 Fire Safety Advisor(s) shall:

- 4.6.1 Promote a positive fire safety culture across the site and advise management on its statutory obligations regarding fire safety and of the effect of new or revised legislation.
- 4.6.2 Undertake FRAs, or ensure that FRAs are undertaken by competent individuals, and then maintained in conjunction with building occupants/users in light of changing building use and modifications for all buildings or combinations thereof at STFC sites. FRAs can be found in Evotix Assure.
- 4.6.3 Ensure that an annual programme of Building Fire Review meetings are held, as appropriate chaired by the respective Building Fire Manager for all site FRAs.

Attendees at the meetings should include: relevant members of Estate Groups, as appropriate members of SHE Group, representatives of those occupying the building and building wardens. The key deliverable from these meetings is a review of the FRA's suitability and progress in completing actions arising from the FRA. As appropriate additional meetings may also be required with BFM's and or estates team to plan and review progress in completing actions arising from FRAs.

- 4.6.4 Ensure that all fire extinguishers and 'fixed' extinguisher systems on site are inspected annually and maintained in good working order by a competent person, maintaining records of such inspections and maintenance.
- 4.6.5 Ensure that a programme of fire drills is carried out annually for each occupied building and that any learning from such drills is identified, addressed and communicated.
- 4.6.6 Review and approve the adequacy of fire management systems in new buildings or significant changes to existing buildings prior to their beneficial occupation by staff, tenants, contractors or others, see Appendix 4 for New Build/ Refurbishment Sign Off checklist.
- 4.6.7 Ensure that all False Fire Alarms, Near Misses related to Fire Management Systems and Fire Incidents are investigated in line with STFC SHE Code 5: Incident reporting and investigation, to ascertain the root cause and learn from such incidents.
- 4.6.8 Ensure that escape signage is provided to a consistent standard across their site, and that information on the required standard of such signage is given to those arranging new builds or refurbishments. (Escape signage may be to either the relevant BS or EN standard but should be consistent across the site).
- 4.6.9 Act as the primary link between the STFC and local fire authorities.
- 4.6.10 Coordinate, support, and provide training, as appropriate, to all Building Fire Managers and Building Wardens, see Appendix 5.

4.7 SHE Group shall:

- 4.7.1 Ensure that mandatory fire and refresher training sessions are provided for those located on STFC sites: staff, and long term contractors/tenants, as defined in STFC SHE Code 10: Provision of SHE training see Appendix 5, and that records of this training are entered, and maintained in, the relevant Personnel database.
- 4.7.2 Provide assistance with interpretation of the requirements of this code.
- 4.7.3 Maintain links with any relevant neighbouring organisations to ensure that the Site Emergency Plan takes account of external emergency scenarios that may affect the site.

4.8 Managers, including Contract Supervising Officers, shall:

- 4.8.1 Ensure that all staff and those that they are responsible for (staff, students, visitors, tenants, agency staff etc,) understand the procedures to follow in the event of an emergency or fire and have attended relevant training, see STFC SHE Code 10, SHE Training.

- 4.8.2 Ensure that any person, for whom they are responsible, who has an impairment that affects their ability to evacuate a building/workplace promptly, is assessed for the need to establish a Personal Emergency Evacuation Plan (PEEP) and if appropriate put one in place.
- 4.8.3 Ensure that they consult with the Building Fire Manager and Fire safety advisor on any proposed changes in their areas where there are fire safety implications, for example structural changes to the building fabric, changes in the nature of work undertaken in an area, introduction of new plant/equipment, changes to the occupancy of buildings, and any Critical Fire and Emergency Safety Systems.
- 4.8.4 Ensure that where significant quantities (More than 0.5m³ gas/ 1 litre liquid) of flammable substances and/or compressed gases are in use in any area that they manage/control, that those substances are stored securely and appropriately in line with the guidance given in STFC SHE Code 20:Controlling Explosive and Flammable Gases and Dusts, Appendix 2.
- 4.8.5 Ensure that where work involving hot works are necessary outside of dedicated hot works areas (for example Mechanical Workshops or Soldering Stations), that such works are undertaken under a 'Permit to Work – Hot Work Outside of Workshops', see Appendix 3. Such permits shall be issued by an approved Hot Work Permit issuer.
- 4.8.6 When managing work that may generate dust or fumes, ensure that the creation of dust or fume is minimised and obtain – from Estates - the isolation and capping of local heat/smoke detectors.
- 4.8.7 Managers of workshops, laboratories or other experimental areas shall ensure that Hazard Warning posters are displayed and maintained at the entrance to such areas. The Hazard Warning posters should display the out of hours contact details for those individuals operating equipment out of hours.

4.9 Hot Works Permit Issuers shall:

- 4.9.1 Only issue Hot Works Permits after having successfully completed the training defined in Appendix 5. They shall not issue Permits for work they are going to carry out themselves unless this has been countersigned by another Hot Works Permit Issuer.
- 4.9.2 Assess all associated risks involved in the Hot Work, including any need for Fire Detection System isolations, appropriate firefighting equipment, develop a safe system of work and issue a Hot Works Permit, ensuring all necessary precautions, including emergency procedures are taken.
- 4.9.3 Ensure at the end of work/working day that all hot work permits have been signed off and any isolated Fire Detector(s) re-instated. An example of a Hot Work Permit is included in Appendix 3.

4.10 Staff, tenants, contractors, facility users or visitors shall:

- 4.10.1 Familiarise themselves with and subsequently follow STFC's Fire Safety Standards, found at the beginning of this code and local site fire and emergency procedures, see Appendix 1.
- 4.10.2 Attend all mandatory fire training, see STFC SHE Code 10 SHE Training.

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- 4.10.3 Only accept Hot Work Permits where they are competent to carry out the requirements of the permit, and only carry out Hot Works where a Hot Work Permit has been issued.
- 4.10.4 Inform their manager, or person responsible for their safety while on an STFC site, of any condition that may affect their ability to respond to an emergency or exit safely and promptly from an area or building in the event of an emergency or fire.
- 4.10.5 Tenants shall co-operate and provide any information required by the site Fire Safety Advisor to undertake a Fire Risk Assessment of the premises/building(s) they occupy.
- 4.10.6 When travelling on STFC business, familiarise themselves with the fire management provisions (escape routes, fire extinguishers, manual call points etc), in their place of work or accommodation.
- 4.10.7 Report any incident or near miss relating to the function and operation of fire management systems, see STFC SHE Code 5: Incident reporting and investigation.
- 4.10.8 During a Fire or Site Emergency situation cooperate fully with Building Wardens and all other staff with defined emergency roles, for example –Emergency Controllers (EC) and Site Controllers (SC), – and carry out any actions requested by them.

5. REFERENCES

Electronic copies of legislation, approved codes of practice and British Standards can be accessed by STFC staff through STFC-wide subscriptions for online information resources. These services are provided by the Chadwick and RAL libraries and further details can be found on the SHE Group website.

Relevant British Standards for Fire Management Systems include:

1. BS 5839-1, as revised, Code of Practice for System Design, Installation, Commissioning and Maintenance
2. BS EN 54-25, as revised, Fire detection Systems using Radio Links
3. BS 5266-1, as revised, Code of Practice for the Emergency Lighting of Premises
4. BS 8519, as revised, Code of Practice for the Selection and Installation of Fire resistant Power and Control Cable systems for Life safety and Fire Fighting Applications.
5. BS 5499-4, as revised, Code of Practice for Escape Route Signing
6. BS EN 15004-2, as revised, Fixed Fire Fighting Systems – Gas Extinguishing Systems. Design, Installation and Maintenance
7. BS EN 62305-1, as revised, Protection against Lightning
8. BS 9999, as revised, Code of Practice for Fire Safety in the Design, Management and Use of Buildings
9. BS 5306-3, as revised, Code of Practice for the Commissioning and Maintenance of Portable Fire Extinguishers
10. BS EN ISO 13943, as revised, Fire Vocabulary
11. BS ISO 14520-1, as revised - Gaseous Fire Extinguishing Systems
12. BS EN 50172, as revised – Emergency Escape Lighting Systems
13. BS 7273-4, as revised – CoP for the Operation of Fire protection Measures: Actuation of Mechanisms for Door
14. BS 7671 (17th edition, as revised) The Electricity at Work Regulations
15. DSEAR Regulations 2015, as revised
16. HSE ACoP L135 – The Storage of Dangerous Substances.

Appendix 1A – Rutherford Appleton Laboratory (RAL) Building Warden, Alarm Investigation Team (AIT) and Emergency Controller Duties

Building Wardens have a duty, on hearing the fire alarm at any time other than the advertised test, to encourage staff, contractors tenants and visitors to leave the building immediately and to check that their designated area has been vacated. **Building Wardens must report to the AIT Member at the Assembly Point as soon as possible.**

It is recommended that Building Wardens construct a list of people **normally** in their building /area

Building Wardens should ensure they are familiar with all escape routes and exits from their search area, including disabled refuges.

Building Warden duties in the event of fire

DO

- Ensure that the AIT (Security) has been called on ext. 2222.
- Ensure that the alarm is raised, if a fire is discovered in their area.
- Actively encourage everyone to leave the building using the nearest available exit.
- Check all accessible areas in his/her designated area (including labs, offices, meeting rooms toilets and refuges) whilst leaving the building.
- Close doors whilst leaving the building.
- Go to the Fire Assembly Point, assess whether anyone is unaccounted for and report this to the AIT Member as soon as possible.

DON'T

- Put him/herself at risk – a quick check of the designated area on your way out is all that is required.
- Re-enter buildings or go upstairs if the alarm sounds – report to the AIT Member as soon as possible, if all areas were not searched.
- Enter the building in which your search area lies if he/she is outside the building when the alarm sounds – report to the AIT Member as soon as possible that it was not possible to search their areas.
- Try to enter locked or obstructed areas – report them to the AIT Member as soon as possible.
- Argue with people who refuse to leave – report them to the AIT Member as soon as possible.
- Use lifts for any reason.
- Try to fight the fire, unless trained and it is safe to do so
- Attempt to rescue disabled people from refuges

Fire Assembly Points

Fire Assembly Points for each building should be shown on Fire Action Notices. Building Wardens should make sure that they know where the Assembly Point is and should direct staff, visitors and contractors to go to the Fire Assembly Point when they evacuate the building.

People with disabilities

Some areas are provided with refuges for people who are unable to use the stairs in an emergency. If necessary Building Wardens should direct disabled or sensory impaired people to the nearest refuge and report to the AIT Member, as soon as possible, that someone is waiting in a refuge.

Fire Alarm Testing

The fire alarm system in each building will be tested weekly on Wednesday and Thursday. Inaudible/barely audible alarms should be reported to RAL Estates Helpdesk via Email. A test is an intermittent signal as opposed to a continuous sound for a real event.

RAL - AIT Duties - Fire Alarms only

In the event of a fire alarm call on 2222, or BMS signal to the R75 monitoring station, the AIT will:

- make the initial assessment / check on the Fire Alarm Panel
- attempt to locate the source of the activation – Manual Call Point or Detector
- summon the Fire Brigade if required.
- receive reports from building wardens and pass these on to SHE Group and Fire Brigade officers; and
- determine whether or not a building may be re-entered after a drill or false alarm.

RAL – Emergency Controller Duties

In the event of an Incident or Emergency at RAL, an Emergency Controller (EC) will assess the situation and decide whether to declare a RAL Emergency. When a RAL Emergency is declared they will take control of the site and take whatever measures are required to deal with the situation. The EC has the authority to issue instructions to all staff and visitors and to obtain their assistance where needed.

More details of the roles and responsibilities of ECs and others are given in the [RAL Emergency Plan](#).

Appendix 1B – Daresbury Laboratory (DL) Building Warden and Emergency Team (ET) Duties

Building Wardens have a duty, on hearing the fire alarm at any time other than the advertised test, to encourage staff, contractors tenants and visitors to leave the building immediately and to make their way from the building to the Muster Point.

The first Building Warden at the Muster Point should take the role of lead Building Warden.

It is recommended that Building Wardens construct a list of people **normally** in their building /area

Building Wardens should ensure they are familiar with all escape routes and exits from their search area, including disabled refuges.

Procedure in the event of fire

DO

- Ensure that the Security at reception has been called on ext. 3333.
- Ensure that the alarm is raised, if a fire is discovered in their area.
- Actively encourage everyone to leave the building using all the available routes and exits.
- Close doors behind them.
- Go to the Muster Point and immediately report anyone left in the building, to the Emergency Team (ET).

DON'T

- Put him/herself at risk; quickly check the area on the way out.
- Re-enter buildings or go upstairs if the alarm sounds – report to the ET Member that it was not possible to search that area.
- Try to enter locked or obstructed areas – report them to the ET Member.
- Argue with people who refuse to leave – report them to the ET Member.
- Use lifts for any reason.
- Try to fight the fire, unless trained and it is safe to do so.
- Attempt to rescue disabled people from refuges.

Muster Points

Muster Points exist for each building and are located generally adjacent to the roadway. Building Wardens should make sure that they know where the nearest Muster Points is and should direct staff, visitors and contractors to go there when they evacuate the building.

People with disabilities

Some refuges are provided for people who are unable to use the stairs in an emergency. If necessary Building Wardens should direct disabled or sensory impaired people to the nearest refuge and immediately report to the ET Member that someone is waiting in a refuge.

Procedure in the event of a Site Emergency

Instructions given over the PA system will tell staff what to do:

- A Site Controller or Senior Site Controller will determine if it is a major emergency.
- If a major emergency is declared the Site Emergency Plan will be invoked.

Fire Alarm Testing

- The fire alarm system in each building will be tested on every Wednesday morning between 9:30 and 12:00. Inaudible/barely audible PA speakers should be reported to DL Estates Helpdesk via Email.
- If a fire drill is to be undertaken the ET leader will normally be informed.

DL - ET Duties - Fire Alarms only

In the event of fire alarm call on 3333 the ET will:

- make the initial assessment / check on the Fire Alarm Panel;
- 'sweep' the building to ensure all persons have evacuated;
- attempt to locate the source of the activation, manual call point or detector, and determine whether it is a real fire or a false alarm;
- inform security reception of their findings who will summon the Fire Brigade if required once a fire has been confirmed;
- receive reports from Building Wardens and pass these on to SHE Group and Fire Brigade officers; and
- determine whether or not a building may be re-entered after a drill or false alarm. In the event of a real fire, this role is carried out by the Senior Brigade officer present.

Appendix 1C – Royal Observatory Edinburgh (ROE) Building Warden and Incident Control Officer (ICO) Duties

In the event of a fire alarm other than the weekly Monday morning test Building Wardens are responsible for encouraging all occupants to leave the building immediately and go to the nearest Fire Assembly point.

Building Wardens have the authority to instruct anyone still in the building to leave immediately. Anyone not leaving under instruction should be reported to the ICO in charge at the assembly point.

Building Warden Duties in the event of fire

DO

- Make sure the alarm is raised if the fire is in your area.
- Actively encourage everyone to leave the building using the nearest exits.
- Check all accessible rooms in your designated area (including labs, offices, meeting rooms and toilets).
- Close doors behind you.
- Report to the ICO in charge at the assembly point if there is anyone not accounted for, individuals located at refuges, and anyone who did not exit under instruction.
- If safe to do so, attempt to extinguish the fire if it is small and presents no risk to yourself.

DON'T

- Put your self at risk; quickly check your area as you exit the building.
- Re-enter the building, report to the ICO at the assembly point if you were outside the building and unable to clear your area at the time of the alarm.
- Conduct a search for missing personnel. Report to the ICO giving the names of any missing persons (if known) and the last known place they were seen.
- Allow anyone to enter the building to retrieve personal belongings when alarms are activated.
- Use the lift to get yourself and other people out of the building.
- Go looking for other fire fighting equipment if your initial attempt fails to extinguish the fire.

Staff that are designated Building Wardens are reminded that they commence their effective cover from when they start work on site until the time they leave

ICO Officers duties:

- Check with reception whether Fire Brigade have been called;
- Make sure the traffic barrier is in the open position;
- Check the fire panel for the location of the fire;
- Pick up the high vis jacket, the loud hailer and the visitors book and make your way to the fire assembly point;
- Assign two members of staff to the front gate to stop anyone entering or leaving the site(visitors, staff, contractors and deliveries) during the alarm condition;
- From the list of Building Wardens tick off their names as they report to you;

- Liaise with the Fire officer in charge giving all the relevant information received from the Building Wardens;
- After the Fire officer in charge has given you the all clear to re-enter the buildings relay the message to all members of staff using the loud hailer; and
- Submit a report to the Director and H+S Manager highlighting any areas of concern and suggested improvements to the Fire drill operations.

Appendix 2 – Permit to Work - Fire Detection Systems

Fire Alarm System – Isolation Permit

1. Details of Proposed Works

No.

Building:		Area:	
Work to be Carried Out:			
Date Required:		Time Required:	
Print Name:		Signature:	
		Date:	
		Time:	
		Contact Number:	

2. Details of Isolation

To be completed by the Permit Issuer

People advised of Isolation:			
Location of Warning Notices:			
	Total Number Posted:		
Isolation Details:			
Capped Detectors*:			
	Number of Caps fitted:		
Print Name:		Signature:	
		Date:	
		Time:	

* Caps shall only be fitted where damage to the detectors may be incurred through dust or other forms of contamination

3. Commencement of Works

To be completed by the person carrying out the work

I understand that the work detailed in Section 1 above can now commence and that the Fire Alarm System has been isolated for this purpose and this purpose alone.			
Unless agreed in advance, all work must be completed or suspended by 16:30 today.			
Print Name:		Signature:	
		Date:	
		Time:	

On completion of Section 3 work can now commence.

All work MUST stop if required to do so.

The sounding of the Fire Alarm may invalidate this Permit. Seek advice from the Permit Issuer.

4. Completion/Suspension of Works

To be completed by the person carrying out the work or a supervisor who is familiar with the work status

All work associated with this permit has now been completed / suspended and all persons under my charge have been advised accordingly. No further work will be carried out without the issue of a new permit.			
Print Name:		Signature:	
		Date:	
		Time:	

5. Reinstatement of Fire Alarm System

To be completed by a representative of STFC Estates Services or ISIS MCR Crew

	✓
Work area has been checked for residual smoke, dust, or vapour	
All caps have been removed from detectors	Quantity: <input type="text"/>
Fire Alarm System reinstated. All faults cleared. System back to normal	
All warning notices have been removed.	Quantity: <input type="text"/>
All persons detailed in Section 2 have been notified that the system has been reinstated	
Notes:	
Print Name:	
Signature:	
Date:	
Time:	

Appendix 3 – Permit to Work - Hot Work outside of workshops



Science & Technology
Facilities Council

Permit No:

PERMIT TO WORK - HOT WORK OUTSIDE OF WORKSHOPS

This permit is applicable to all operations involving flame, hot air or arc welding and cutting equipment, brazing and soldering equipment, blowlamps, bitumen boilers and other equipment producing heat or having naked flames outside workshop areas.

Permission is granted to:

To use:

In the:(Exact Location)

Between:..... and hours on

The above location has been examined.

A competent person *will/will not be standing by with an extinguisher while the operation is in progress.

There are no combustible liquids, vapours or gases. All combustible material has either been removed or suitably protected against heat and sparks.

The operatives have had the nearest manual call point/telephone pointed out to them and have been told what to do in the event of a fire.

Smoking is not allowed in any building on site.

The Fire Safety Advisor has inspected the area of work *yes/no.

Additional Restrictions:

Signature of Hot Works Permit Issuer:.....Date:.....

Signature of person responsible for the work:.....
(After signing, return permit to Hot Works Permit issuer)

Work areas and all adjacent areas to which sparks and heat might have spread were thoroughly inspected on completion of the operation and 1 hour thereafter. No smouldering fires were discovered.

Signed:.....

Appendix 4 – Technical Fire Safety Management Guidance

The following documents provide specific technical guidance for the management of fire safety in the STFC. While some have been developed for use on specific STFC sites they have general relevance to those managing fire safety at any site and should be considered.

SECTION A4.1 New Building/Area Refurbishment Fire Sign Off pro-forma

SECTION A4.2 Fire Alarm: Installation Guidance Note

- A4.2.1 Scope
- A4.2.2 General Requirements
- A4.2.3 Equipment Mounting
- A4.2.4 Test, Commissioning and Record Information
- A4.2.5 Notes

SECTION A4.3 Standard Fire Precautions for Works Projects and Contractors

- A4.3.1 Introduction
- A4.3.2 Site Establishment
- A4.3.3 Hot Work Inspections
- A4.3.4 Highly Flammable Liquids
- A4.3.5 Compressed Gas Cylinders
- A4.3.6 General

SECTION A4.4 Guidance on the selection, installation and maintenance of Fire Doors

- A4.4.1 Introduction
- A4.4.2 Selection of Certified door sets
- A4.4.3 Installation of Fire Doors
- A4.4.4 Fire Door Register
- A4.4.5 Maintenance of Fire Doors

Section A4.1 – New Building/Area Refurbishment Fire Sign Off pro-forma



**Science & Technology
Facilities Council**

SHE Group - Building Fire Safety 'Sign Off' prior to beneficial occupation – only to be signed by a site Fire Safety Advisor

Site..... Building.....
Area..... Room.....

For use with new works, refurbishments, change of use of premises, revised access or egress routes, and any changes or modifications to Fire Alarm System.

Fire Alarm Systems						
	Certificate Provided Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Designed to BS 5839-1, as revised				Category Designed by		
Installed to BS 5839-1, as revised				Installed by		
Commissioned to BS 5839-1, as revised				Commissioned by		

Witnessed Tests	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Sounder Compatibility						
Sounder Audibility						
Data Link to Monitoring Station						
Detector Type						
½ Hour Bell Test						
Cause & Effect Scheme Verified						
Dampers						

Correctly Located						
Damper Operation						
Dampers Identified						
Access Control Doors to Fail Safe on Fire Condition						
Lift Registered (SHE Group)						
Lift operation on Fire Condition						
Lift emergency phone operation						
Smoke Extract System						
Soak Test (1 week Fault Free)						

Devices Labelled	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Manual Call Points						
Point Detectors						
Other Detectors						
Sounders						
Remote Indicators						
Batteries						
I/O Units						

Fixed Fire Suppression System						
	Certificate Provided Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Designed to						

BS ISO 14520-1, as revised,						
Installed to BS ISO 14520-1, as revised,						
Commissioned to BS ISO 14520-1, as revised,						

Witnessed Tests	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Room Integrity Tested						
1st knock						
2 nd knock						
Gas Type						
System Operational						

Fire Management						
	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Building Control Approval						
Zone Charts in place						
O&M Manuals						
As installed Drawings						
Signage provided under contract to BS 5499						
Fire Stopping through Vertical & Horizontal compartmentation						
Means of Escape Incl. External						
Fire Hydrants						

Fire Doors						
	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
3 rd party Certified						
Correctly Fitting						
Correct Number of Hinges						
All screws correct length & fitted						
Self Closing Device Fitted						
Penetrations						
Vision Panels Fire Rated						
Hold Open Devices						
Fire Signage to BS 5499						

Fire Extinguishers						
	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Appropriate for the Risk						
Appropriately Located						
Correctly Fitted to Wall						
Signage to BS 5499						

Emergency Lighting						
	Declaration of Conformity	Variations Yes/No	Not Applicable	Notes	Signed	Date
Designed to BS EN 50172, as revised,						

Installed to BS EN 50172, as revised,						
Completion Certificate						

Witnessed Tests	Verified Yes/No	Variations Yes/No	Not Applicable	Notes	Signed	Date
Ave. illuminance level (lux)						
Design Duration						
Full Duration Test						

Building Fire Safety Acceptance

All the above have been Verified and therefore I am satisfied that beneficial occupancy may take place

Name	
Signed	
Date	

Site Fire Safety Advisor

Circulation:

Contractor
Contract Supervising Officer
BPG – to
SHE Group

Section A4.2 – Fire Alarm Installation Guidance Note

A4.2.1 Scope

This Guidance Note attempts to provide clarification and assistance to interested parties so that they may meet the **Standards required** regarding the installation of Fire Detection and Alarm Systems at the Rutherford Appleton Laboratory and associated sites' TCH and Chilbolton Observatory.

It covers the design, supply, delivery, installation, commissioning and handover of the system. It is based upon the recommendations contained within BS 5839-1, as revised. It is not intended that this guide replaces the BS but provides guidance on the practical application of the recommendations contained therein and should be used in conjunction with the BS and this SHE code.

A4.2.2 General requirements

All Fire Alarm installation work will be carried out by 3rd party certified (BAFE) registered companies or those companies who are substantially through the process of achieving such certification.

All installations shall comply with BS 5839-1, as revised, BS7273-4, as revised, BS 7671, as revised, the Electricity at Work Regulations 1989, MOD Specification 34, as revised and in accordance with equipment manufacturer's recommendations.

All Fire Alarms shall be wired using red FP200 Gold cable, unless otherwise stated. All wiring shall be LSF insulated with stranded copper conductors, Minimum conductor size 1.5mm² CSA.

The Contractor shall make due allowance to install new services & remove old services such that fire detection of areas is not compromised.

Wherever possible the existing services shall remain in operation and connected to the old fire alarm panel and new services installed nearby as directed.

The contractor shall employ the use of temporary cabling where necessary to keep existing services in operation prior to the final testing, commissioning and handover of the new installation.

Where specified point smoke detectors shall be of the 'Optical type'.

Smoke detectors shall be Apollo series X95 or Hochiki ESP protocol type only.

A4.2.3 Equipment Mounting

A4.2.3.1 Fire Alarm Control Panel

The equipment should be generally accessible on the ground floor adjacent to the main entrance to the building to enable security and the fire brigade to quickly identify the zone of the fire.

A correctly orientated plan of the building must be displayed close to the control panel showing entrances, escape routes and zones.

Fire alarm panels (standard Kentec) with LCD display should be mounted such that the top of the panel is at 1.65 metres +/- 0.1 metres above floor level. All panels required should be

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sourced from Kentec Electronics Ltd. Quoting 'Supply to Rutherford Appleton Laboratory specification'. (This will ensure the panel is prepared to receive Key switches). These switches are supplied FOC.

A4.2.3.1.1 Power Supplies

The power supply for the control panel should be exclusive to the Fire Alarm System and should be supplied via a fused spur with secret switch giving double pole isolation and be clearly marked 'FIRE ALARM DO NOT SWITCH OFF'

Upon mains failure the batteries should continue to power the system for a minimum of 72 hours plus 30 minutes **alarm** duration after that.

A4.2.3.2 Manual Call Points

Manual Call points should comply with the requirements of BS EN 54-11, Type 'A'. Any proposal for use of type 'B' manual call points requires the prior approval in writing of the Fire Safety Advisor and must be noted as a variation.

All manual call points shall be identical unless there is a special reason for differentiation.

Manual Call Points should be fitted in conspicuous and easily accessible points on escape routes, mounted at 1.4metres +/- 0.2 metres above floor level, unless otherwise specified.

Call points should be located at the exits to the open air and at all storey exits on each floor.

Maximum travel distance to operate a Manual Call Point shall not exceed 45 metres or 25 metres in any special hazards or high risk areas.

All manual call points that are installed but not commissioned and in service shall be suitably labelled to indicate this.

A4.2.3.3 Cabling

No joints are permitted in new cabling except at devices.

Cables should be provided with mechanical protection in areas where physical damage or rodent attack is likely.

If cables are likely to be subjected to impact by forklift trucks or goods trolleys etc. for example, loading bays then further robust protection is required such as installation in metal conduit or trunking.

All cabling shall be secured to cable trays with metal fasteners at intervals of not more than 1000mm.

At no time shall cabling be 'tie wrapped' or fixed to other cables or services. Cabling should be fixed to new and/or existing containment systems or direct to the building structure where prior agreement has been sought and given.

Where a cable passes through an external wall, it should be contained in a smooth bore metal or other non hygroscopic material sealed into the wall. This sleeve should slope downwards and be sealed with a waterproof compound to prevent the ingress of moisture, dust or vermin.

Where cables, conduits, trunking or cable tray pass through floors, walls partitions or ceilings the penetration should be as small as possible and made good with an approved fire stopping material to ensure that the fire resistance of the construction is not materially reduced.

A4.2.3.4 Spacing of Detectors

A smoke detector under a flat ceiling has a radius of 7.5 metres

Heat detectors have a radius of 5.3 metres

A Detector radius should reach every part of the room. In large open areas, as a rule of thumb this spacing equates approximately to one detector (smoke) per 100m² and one detector (heat) per 50m²

Detectors should be located a minimum of 500mm away from walls

There should be a 500mm clear space below and around the detector

Detectors should be located at least 1 metre away from air conditioning units

If an obstacle e.g. beam/RSJ is less than 10% of the ceiling height then ignore. If it is more than 10% of the ceiling height, treat it as a wall for detector spacing locations.

Note:

Heat detectors for use in kitchens and boiler rooms should be of the 'Fixed Temperature' type. In areas where smoke detection is undesirable i.e. staff rooms, tea points etc. the detector should be of the 'Rate of Rise' type.

A4.2.3.4.1 General Mounting Heights of detector

Maximum mounting height for Heat detectors conforming to BS EN 54-4 Class A1 - 9.0m

Maximum mounting height for point Smoke detectors - 10.5m

Optical beam Smoke detectors - 25.0m

Aspirating Smoke detecting systems complying with BFPSA code of practice for Category 1 aspirating detection systems

Normal Sensitivity - 10.5m

Enhanced sensitivity - 12.0m

Very High Sensitivity - 15.0m

A4.2.3.4.2 Detection in Voids

If the system Category requires automatic detection in areas where there is a void greater than 800mm then the fire detection should also be provided in the void.

Voids less than 800mm generally do not need to be covered with the following exceptions:

Fire or smoke can spread between rooms or compartments before detection; or there is a high risk - determined by a risk assessment - to warrant protection in the voids.

A4.2.3.5 Audible Alarms and visual indicators

The minimum number of Sounders circuits shall be two. One sounder should be located near the control panel or building entrance on a separate circuit.

Addressable systems should be wired from the control to a sounder protected by a short circuit isolator.

On RAL main site and Ridgeway House only bells or bell/strobe units shall be installed

Electronic sounders shall be installed in the Cosener's House complex, Chilbolton Observatory and R97 Electron Building.

A minimum of 65dBA is required in general areas or at least 5dBA above any background noise levels which persists for more than 30 seconds. A relaxation (to a lesser level) in certain situations may be granted – solely at the discretion of the RAL Fire Safety Advisor.

In sleeping accommodation, 75dBA is required at the bed head. A sounder per room is required.

Where high levels of background noise exist, e.g. plant rooms, server rooms etc. sounders shall be supplemented by visual indicators such as beacons.

Beacons within the building shall be wired on a sounder circuit such that they may be turned off when the sounders are disabled or silenced.

Beacons located externally shall be on addressable loops so that they can remain on even after the internal sounders have been silenced.

A4.2.3.6 Labelling

Each Fire Alarm System Device shall be labelled as per the following method:

Device ID	S34 L3 Z5 A108
S34	Detector 34 (P for Call Points, I/O for interface units)
L3	Loop 3
Z5	Zone 5
A108	Address 108

Each Fire Alarm Bell/Sounder will be sequentially numbered i.e. B xxx

Each system battery shall be suitably rated and labelled with the date of installation.

A4.2.4 Test, Commissioning and Record Information

A4.2.4.1 Testing

The contractor shall ensure that all necessary inspection and testing etc. is carried out.

- Test all installed wiring to include Insulation resistance test, circuit impedance, earth continuity, and for mains supply circuits earth fault loop impedance.

A4.2.4.2 Commissioning

To be carried out by the current site Maintenance Contractor. (Name will be confirmed at time of order).

Includes out of hours if required to demonstrate the automatic fire detection and alarm system performance to BS 5839 and will include the following:

- Test of all components for correct function and operation
- Test and confirm Zone Alarm identification
- Test each interface to interconnected systems
- Sound Pressure levels in all areas of the works
- Demonstrate correct operation of 'Cause and Effect – where applicable

At the completion of the installation the system shall operate without fault for a period of 7 days after which the defects liability period will commence.

A4.2.4.3 Record Information required

Certificates for design, installation and commissioning of the system, and Installation Test Results

An **adequate** operation and maintenance (O&M) manual for the system which includes the following but is not limited to:

- Product information;
- Details of product guarantees and warranties;
- 'As fitted' drawings;
- Hard & soft copies of any panel programming;
- A record of any agreed variations from the original design specification;
- Such other records as are required e.g. RAL 'Building Sign Off Record';
- A log book; and
- An Electronic copy of the entire O&M manual including as built drawings in PDF & AutoCAD format.

A4.2.5 Notes:

A4.2.5.1 The O&M Manual

- Shall be *specific to the system* in question and should include (but is not limited to):
- The equipment provided and its configuration, including for radio linked equipment the background RF noise level and attached signal strengths;
- Use of all controls;
- Recommendations for investigation of a fire alarm fault or signal;
- Recommendations for investigation in the event of a false alarm;
- Recommended Maintenance periods and Planned Preventative Maintenance;
- The need to avoid contamination of detectors during contractors activities;
- The need to keep a clear space around all fire detectors and Manual Call Points; and
- Other user responsibilities

A4.2.5.2 As Fitted drawings – minimum information requirements

- The positions of all control, indicating and power supply equipment, origin of supply;

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- The positions of all manual call points, fire detectors and fire alarm devices;
- The positions of all equipment that may require routine attention or replacement (the obvious example is short circuit isolators);
- A detailed schematic showing all devices, terminal numbers, locations, device references, loop references and zone references; and
- Other equipment interconnected to the Fire Alarm System.

A4.2.5.3 Permits to work

To ensure the safe operation of the alarm systems on site and to prevent unwanted nuisance alarm activations certain isolation's may be required. Any such isolation **MUST** be carried out under a Permit to Work System and a copy of the permit must be displayed prominently at the panel in question. No works shall commence until a properly completed permit has been issued.

Temporary 'capping' or covering of detector heads is not permitted at any time except where used to prevent the detector becoming contaminated by dust or similar. Detector head(s) that are intended to be covered **MUST** be specified on the Permit to Work.

A4.2.5.4 Asbestos

Asbestos Containing Materials (ACM's) exist in many of the buildings on STFC sites. Prior to any work being undertaken, the contractor shall make reference to the Asbestos Register.

Where any work is to be carried out that has the potential to disturb any material or substances that may contain asbestos in any form, the contractor shall provide detailed drawings for suggested detector installation methods. These drawings and method statements shall be approved by the Superintending Engineer **prior** to works commencing.

Section A4.3 – Standard Fire Precautions for Works Projects and Contractors

A4.3.1 Introduction

Buildings undergoing construction, major alterations, repair or maintenance, are particularly vulnerable to fire and smoke spread. Structural fire and smoke stops such as walls, doors, floors and ceilings may be incomplete. Techniques employed may involve flame, heat or spark producing apparatus. Fire protection equipment, e.g., dampers, smoke detectors or audible warning devices may not yet be operational, or may be isolated during the works.

A fire originating on a Contractor's site may put personnel and property at risk in areas immediately adjacent to the site.

In an occupied building, staff, visitors and other contractors may be put at risk by a fire originating within the Contractors working area.

Contractors and STFC staff are required to comply with all aspects of fire precautions outlined in this Code in addition to any other specification requirements relating to fire precautions and shall ensure compliance by their sub-contractors.

This Fire Code does not relieve Contractors of their responsibility for taking all reasonably practical precautions. Particular attention is drawn to the Construction (Design & Management) Regulations, as revised.

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The specified fire precautions may only be varied on the written authority of the Fire Safety Advisor

'Means of Escape' is defined as 'structural means whereby persons may turn their backs on a fire and, by their own unaided efforts, proceed to a place of safety'. Contractors are to ensure not only that adequate means of escape are provided for their own staff but that all means of escape in neighbouring areas are kept unobstructed and available for immediate use by others at all times.

All fire precautions in neighbouring areas are to be observed i.e. any works affecting fire doors, fire alarms or other fire precautions in neighbouring areas must be discussed in advance between the Contractor and the Contract Supervising Officer.

Explosives or cartridge operated fixing tools are not to be used or stored on any STFC site without the written permission of the Contract Supervising Officer.

The Contractor and their staff will be expected to comply with any fire drills and tests of the fire alarm which may be arranged during the contract period. The Contractor shall have procedures in place for evacuating his staff in the event of fire originating within his work area. These procedures shall be tested periodically.

Where a particularly dangerous or fire sensitive operation cannot be avoided, the Fire Safety Advisor may require an additional Method Statement(s) to be submitted for his approval prior to any work commencing.

Prior to any work being carried out in sensitive areas or areas that in themselves are deemed to be a high risk regarding fire and safety, the Contract Supervising Officer will consult with the Fire Safety Advisor.

A4.3.2 Site Establishment

Contractor's site huts and accommodation shall only be placed in locations previously agreed with the Contract Supervising Officer. Contractors are required to submit plans of the proposed layout of accommodation, storage areas and rubbish skips, including those to be used by their sub-contractors. Any variation of these arrangements must be agreed in writing with the Contract Supervising Officer. There shall be no storage of flammable materials either within or under the accommodation.

To prevent rapid spread of fire, temporary buildings and combustible storage are to be sited, wherever possible, outside the main buildings and as far apart as space allows. Site huts shall be of fire-resisting construction such as to contain a fire for a minimum of 30 minutes.

Undergrowth and grass within 6m of temporary buildings and storage areas shall be kept short. Only a safe type weed killer e.g., those with a fire suppressant, may be used.

As far as possible, access to the site is to be at least 3.1m wide and 4m high and kept clear for use by Fire Service Emergency vehicles.

Fire hydrants are to be kept clear and readily accessible at all times and shall not be used without the written permission of the Fire Safety Advisor.

Hydrant indicator post and plates and hydrant pit covers are not to be removed or obstructed.

Where the work area is given over entirely to the Contractor, an example being an extension to an existing building then a fire resisting barrier of 1 hour standard is to be maintained between the Contract site and the remainder of the building.

Any opening made in fire resisting construction forming the site boundary is to be packed solid with mineral wool, intumescent pillows or intumescent putty at the end of the working

day. These materials are to be supplied by the Contractor and maintained in good condition for the duration of the contract.

All openings made in compartment walls are to be stopped up at the end of the working day and made good at the end of the job. Openings and voids discovered during the course of the work shall be identified to the Contract Supervising Officer and Fire Safety Advisor.

Temporary protective sheeting and all weather sheets attached to the building, to scaffolding or hoardings shall be inherently non-combustible.

If required as part of the contract the Contractor shall appoint a Fire Warden to his staff who will be responsible for ensuring that all fire precautions specified in the contract are observed at all times for the duration of the works.

The Contractor will be responsible for ensuring that the Fire Warden is properly trained in his duties.

The Contractor shall ensure that his operatives are adequately trained in the fire precautions necessary for the job.

Areas containing easily ignitable material and places where flame or spark producing apparatus have been used are to be inspected by the Contractor at meal breaks and at the cessation of work, to ensure that no conditions exist which might lead to an outbreak of fire.

Each inspection tour is to include the whole area of the works, temporary buildings and storage areas

A further check is to be made by the Contractor one hour after the cessation of hot works for the day.

Processes involving the use of welding apparatus, cutting equipment and other flame or spark producing apparatus may be required by the Fire Safety Advisor to be witnessed by a Fire Watcher, appointed from the Contractor's staff. Such watchers shall be equipped with fire-fighting equipment, supplied by the Contractor, commensurate with the particular operation and shall be properly trained in its use.

A4.3.3 Hot Work Inspections

Unless agreed otherwise with the Fire Safety Adviser, where it is necessary for Contractor to carry out a hot work process the Contractor is required to apply for a Hot Work Permit in accordance with procedures set out in STFC SHE Code 19. These are only obtainable from an STFC employee properly authorised to issue such permits and are therefore not included within these procedure notes.

The operative must obtain this permit BEFORE work commences and carry a copy of the Permit with him until the particular task is completed, the area checked after one hour and the Hot Work Permit signed off by the Contractor and returned to the Issuer of the Permit.

Where there is a Site Manager on site, it is he/she or their representative who will apply for the Hot Work Permits required by their own, or their sub-contractor staff.

Where hot work has been in progress it is the Contractor's responsibility to inspect the area one hour after operatives have finished any hot work to ensure that the site is left in a safe condition. Such visits and patrols may be augmented at any time by the Fire Safety Advisor, or other authorised persons.

Areas in the vicinity of the hot work shall be closely examined to ensure that there is no smouldering or incipient fire. The danger area may extend to include cavities, voids, rooms, cupboards, ducts or any concealed space where, despite the precautions taken, flame, hot sparks or conducted heat may have penetrated.

Contractors shall provide extinguishers, suitable in type and sufficient number, to cover their area of work. The Contractor shall submit a proposal regarding extinguishers to the Fire Safety Advisor for approval. All extinguishers are to be kept in full working order throughout the duration of the works.

Welding, cutting, brazing, disc cutting, plumbers furnaces and other flame or spark producing apparatus are to be operated only by skilled personnel, each of whom shall be made aware of the safety precautions relevant to the job in hand.

All litter, rubbish and combustible material shall be removed from the vicinity of the work to be undertaken. Where combustible material is fixed or immovable, it shall be protected with non-combustible material such as sheet metal, fire resisting board or a fire blanket.

Floors which might otherwise be damaged shall be protected from heat, sparks, flames or hot slag.

Special care is to be taken to prevent flame, sparks or molten metal from reaching or entering ducts, channels, chases or open ended pipes, or through openings in walls or floors. Non-combustible material shall be used for the plugging of holes.

The possibility of heat being conducted by fixed metal work, i.e., through partitions, walls or floors, shall be investigated and combustible material in contact with such metal items shall be removed.

Flame or spark producing apparatus shall not be used near containers of highly flammable liquids or gases, whether they are full or empty.

Heat or flame producing apparatus shall not be left unattended when alight.

An adequate number of appropriate fire-fighting appliances are to be placed readily at hand until all possibility of an outbreak of fire has passed.

The use of blowlamps is strictly prohibited unless agreed by the Fire Safety Advisor. This will normally only be approved for roofing and road work.

Electric element paint strippers will only be used with the permission of the Fire Safety Advisor. These are not to be left in contact with combustible material and the plug is to be removed from the socket during breaks and when work ceases for the day.

Liquids used for the removal of paint, varnish or polish must conform to BS: 3761

Deposits of all stripped materials are to be collected from the working area and removed to the approved storage point at the end of each working day.

A4.3.4 Highly Flammable Liquids

Wherever possible, highly flammable substances should be replaced by less hazardous ones, e.g. petroleum based adhesive should be replaced with a water based product.

Highly Flammable liquids are to be kept wherever possible in their original supply containers which must be capable of being securely closed. Petrol containers are to be marked '**PETROLEUM SPIRIT - HIGHLY FLAMMABLE**'. Containers for other flammable liquids are to be appropriately and legibly marked. None of these are to be brought into the buildings.

All such containers are to be kept in a locked metal bin (maximum content 50 litres) provided by the Contractor and kept in the open air. There must be a warning sign in the vicinity to indicate '**NO SMOKING - PETROLEUM SPIRIT - HIGHLY FLAMMABLE**'. More than one bin may be permitted at the discretion of The Fire Safety Advisor.

Flammable paints in quantities exceeding (50 litres) are to be treated as flammable liquids.

Highly flammable liquids are not to be exposed within 5 metres of a naked flame, electrical apparatus capable of igniting vapours, or any other possible source of ignition.

Any decanting of these liquids is to be carried out in the open air. Caps and stoppers are to be replaced securely on all containers when not in use.

Only sufficient quantities of the liquid (10 litres) are to be taken from stores.

Empty containers are to be securely capped and returned to store.

Tanks of petrol engines are not to be filled while the engine is running.

Staff who handle flammable substances or hazardous chemicals should be properly trained in their safe handling. They should also understand the properties of the substances sufficiently to recognise circumstances which increase the risk of fire, e.g. they should know if heavier-than-air flammable vapours are given off and how these can travel considerable distances to reach a source of ignition.

Spraying highly flammable liquids will not be permitted on STFC sites without written permission from the Fire Safety Advisor.

A4.3.5 Compressed Gas Cylinders

All gas cylinders are to be sited away from sources of heat or potential fire risks, regardless of whether or not the contents of the cylinder are flammable, and whether they are full or empty. None shall be permitted to remain within the building overnight.

Full and empty cylinders are to be kept separate in a safe position previously agreed with the Fire Safety Advisor

Cylinders containing flammable gases such as acetylene and propane are to be kept separately from those which support combustion such as oxygen and compressed air. Cylinder stores are to be prominently indicated by suitable signs or notices.

Use of Acetylene is discouraged. However, where there is no alternative, the Fire Safety Advisor is will use his/her discretion and may allow its use subject to the following:

Prior to the use of Acetylene on site, authorisation and a permit must be obtained from the Fire Safety Advisor. Acetylene cylinders shall be stored and used at all times in the upright position and shall not be left within any building overnight or at weekends. At the cessation of work the main valves must be firmly closed and cutting torches and tubing removed. In no circumstances may any gas cutting equipment be left alight and unattended.

Only the cylinders required for operating an appliance may be brought into any building and in the case of LPG, the cylinder capacity must not exceed 15 kg.

Note: Unlike mains gas, LPG vapours are heavier than air and will accumulate at low level

Unless authorised otherwise by the Fire Safety Adviser boilers for tar or other bituminous materials shall be sited in a safe place on the ground, on a firm flat and level surface and a be a minimum of 3m away from their propane cylinders, and any building.

The boiler must not be allowed to overheat or run low and the gas supply must be turned off before leaving the boiler unattended, even for short periods. Lighted tar boilers shall be attended at all times.

No more than 2 cylinders of size 47Kg are to be in the vicinity of the boiler at any one time.

A4.3.6 General

All drying out or temporary heating of the works shall be achieved using electrical appliances. Space heaters and LPG furnaces are not to be used unless agreed by the Fire Safety Adviser.

Temporary electric heating appliances are to be of the enclosed type, securely fixed and guarded.

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The Contractor shall at all times ensure that an adequate numbers of escape routes are provided, properly signed and adequately illuminated. In occupied buildings the contractor shall ensure that existing escape routes are kept clear at all times. Storage of materials is not permitted within designated escape routes.

Temporary lighting must be of a good standard and in good repair. Any cable runs must not compromise fire escape routes. Temporary lighting must be supplied where works have disabled existing escape lighting.

To ensure the safe operation of the alarms systems on site and to prevent unwanted nuisance alarm activations certain isolation's may be required. Any such isolation shall be carried out under a Permit to Work System and a copy of the permit to be displayed prominently at the panel in question. No works shall commence until a properly completed permit has been issued.

Temporary 'capping' or covering of detector heads is **not** permitted at any time except where used to prevent the detector becoming contaminated by dust or similar. Head(s) that are intended to be covered shall be specified on the Permit to Work.

Electric kettles are to be of a type incorporating a safety cut out which will prevent them boiling dry. They are to stand on a non-combustible base when in use.

Food preparation is only to be undertaken in properly appointed mess huts.

Smoking is prohibited within buildings and permanent 'NO SMOKING' notices complying with BS: 5499 shall be provided by the Contractor and displayed throughout the working area.

Places where operatives may smoke will be notified by the Fire Safety Advisor upon request.

Contractors and their staff are required, when working in STFC buildings, to sign in and out of the Contractors Log.

Failure to comply with STFC rules may result in Contractors and their staff being removed from site.

Note: The Storage of Highly Flammable Liquids & Gases is Subject to the requirements of the DSEAR regulations, as revised, with particular reference to HSE ACOP L135 'The Storage of Dangerous Substances'.

Section A4.4 - Guidance on the selection, installation and maintenance of Fire Doors

A4.4.1 Introduction

Under current Fire Safety legislation (Fire Safety) Order 2005, any premises where persons are employed to work or members of the public may visit (for payment or otherwise), must have "preventative" and "protective" measures in place. "Protective measures" includes determining the number of fire compartments within the building, which also includes the location and number of fire doors required. This will ensure that occupiers or visitors will be able to escape from fire via a protected means of escape route usually protected by fire resisting doors.

The old custom and practice of 'knocking up' fire door frames, hanging a fire door leaf and believing that the results constituted a valid fire door installation was never correct, and undoubtedly places property and lives at risk. The best way to ensure that a fire door is installed using the correct frame is by purchasing a fire door frame from the door leaf manufacturer, preferably as part of a door set, or from a company certificated to produce fire door frames for that manufacturer's door. This ensures that you get a fully compatible and certificated end product.

The role of the specifier is as critical as anyone's in the life of a fire door. The specifier's role, being at the beginning of the project, is an opportunity not only to identify where a fire door is required and what its rating needs to be, but to set the standard by insisting on a third party certificated product.

The specifier has the opportunity to look at the fire safety of a building as a whole, and as such, make decisions on what fire safety products are required to ensure the safety of the occupants in the event of a fire. While product costs are always a consideration to specifier's, decisions on the quality of a product are made with safety in mind. If you leave the decision of fire doors quality to someone further down the process, are they going to make the decision based on the safest option or the cheapest?

The specifier can prevent this situation arising by insisting on a third party certificated product from the design stage.

Manufacturing members of the British Woodworking Federation (BWF) -CERTIFIRE Fire Door & Door set Scheme supply more than 75% of the fire doors used in the UK each year. With the Scheme representing both volume manufacturers and manufacturers of bespoke, made-to-measure fire doors, there is a third party certificated option available for every situation at competitive prices. **There is no reason to avoid specifying third party certificated fire doors.**

A4.4.2 Selection of Certified door sets

Just like any passive or active fire protection system, it is essential for a **fire door** to perform its vital task in the event of a fire.

To satisfy UK Building Regulations, a door design must pass a recognised fire test, or an assessment based on test evidence. Tests are usually conducted in a **United Kingdom Accreditation Service (UKAS)** approved laboratory, with the intention of checking that the design meets current standards and to prove that it will hold back a fire for a prescribed period of time.

The test is conducted on a door assembly which has been supplied by the manufacturer, with no independent selection or assurance that subsequent production will be to the same quality or specification. It is important to understand that a test report is only valid for the door assembly that has been tested. So a single leaf door assembly test is not valid for an assembly involving pairs of doors, nor a double acting single leaf door.

The BWF recommends that all fire door designs should also be third party certificated to offer a safeguard for important aspects which are not covered in a single fire test. Third party certification tests and verifies a fire door's design, performance, manufacturing process & the associated procedures, quality assurance, the audit trail from manufacture to installation and identification marking.

Every fire door design manufactured under the (BWF) -CERTIFIRE Fire Door & Doorset Scheme has been independently tested and certificated as proof that, all things being equal, it will be reliable in the event of a fire. But it is not only the fire door itself that has to be certificated. Anyone involved in the handling of certificated doors, whether manufacturing the frames, inserting glass vision panels or installation, should be able to demonstrate through independent certification that they are capable of doing the job to the required standard.

Although it is vital to use certificated components when completing a fire door assembly, it is also important to ensure that the components used are compatible. It is wrong to assume that all certificated components will work effectively together.

The BWF-CERTIFIRE Fire Door & Door set Scheme has a variety of labels to suit the different ratings and requirements of each job. These labels have the manufacturer's name and phone number, and where applicable the certification number, a unique serial number and the rating, printed on them.

A4.4.3 Installation of Fire Doors

Proper installation is integral to fire door performance. It is one of the final and, arguably, most crucial stages of the work carried out on fire door sets.

As manufacturers & suppliers go through the extensive and committed process of having their doors and components rigorously tested in accordance to the latest standards, the installation procedures become ever more important to ensure that the fire door remains fully reliable.

The correct installation of fire door assemblies and door sets is fundamental to their overall performance because it will ensure the fire door will remain reliable to its fire integrity rating in the event of a fire.

A fire door set is correctly installed in the furnace when it is tested, so therefore it must be installed correctly on site so that the door will perform in the same way when needed.

Incorrect installation defeats the purpose of certificated fire doors, certificated components and certificated hardware because in a fire, the smoke and gases it produces can easily travel through the gaps left by incorrect installation.

A certificated half hour fire door which is incorrectly installed may only provide 5-10 minutes of fire resistance. In order to avoid risking people's lives, BWF-CERTIFIRE manufacturers provide specific and comprehensive installation instructions **with every door** which must be rigorously followed by the installer. Installation instructions are specifically written for each particular door design in accordance with its relevant fire test.

THEREFORE, INSTALLING FIRE DOORS IS NOT A STANDARD TASK, IT IS A SPECIALISED TASK.

The advice in the installation instructions just takes a moment to read and even though installers may have been fitting fire doors for years, the instructions will inform the reader of detail **specific to that door**. More importantly, it will offer that peace of mind to the installers and will result in fewer site difficulties.

Not following the instructions can prove fatal in the event of a fire and will invalidate the certification because installation is the last stage of the entire certification process.

If you come across a BWF-CERTIFIRE certificated fire door that – for whatever reason – does not have these installation instructions, then you should speak to the site manager from where you obtained the door **or** contact the manufacturer of the fire door; details can be found on the label stuck on top of the fire door leaf.

If there are no instructions, you may be installing a fire door that has not been third party certificated. The BWF recommends that you contact the manufacturer of that fire door and obtain instructions direct from them.

Where possible the frame to wall gap should be limited to 10mm, but some fire doors will allow up to 50mm if identified in the installation instructions. The gap should be filled with a material fibre or intumescent foam to ensure flames cannot penetrate.

Trimming allowances will be clearly identified in the installation instructions but as a general rule are limited to 5mm off the bottom and 3mm off the stiles. Taking more off the door may affect the structure of the door reducing the expected performance. Never trim the top of a Certifire door due to the positioning of the identification label. If it is destroyed or removed you need to contact the manufacturer for a replacement.

The role of essential ironmongery is to hold the fire door in place in the event of a fire. Door closers, hinges, locks and latches are all considered essential ironmongery and must therefore be made of a metal that has a melting point above 850 degrees Celsius such as steel, phosphor bronze and brass.

There is now a variety of tested and certificated door closers available to fit all design requirements. Concealed overhead and jamb mounted closers are now used on fire doors where you don't want the closer visible when the door is in the closed position. Also certificated floor springs are now readily available and used in double leaf configurations. If hold open devices are used, they must be in-line with the closer to ensure the door does not distort and only used if linked directly to a fire warning system.

Products that are considered non-essential ironmongery, including handles, letter plates and air transfer vents, do not have a direct role in holding the door in place but can still have a significant effect on the fire door achieving its rating. It is critical that non-essential ironmongery is chosen and installed as per the door leaf installation instructions which may require intumescent sleeves or paste being used.

Ideally, a non-certificated fire door should not be installed where a fire door is necessary and it is highly recommended that you change your supplier in order to obtain fire doors manufactured under the BWF-CERTIFIRE Fire Door & Door set Scheme. The BWF is committed to supporting FIRAS, the third party certification Scheme for the installation of passive fire protection products. Members are trained and taught how exactly to install a fire door. All certificated FIRAS Installers are obliged to stick a unique and fully traceable label on every fire door they install.

Note: As a requirement of the FIRAS Schemes, certificated companies are required to employ, on a permanent or contract basis, competent Supervisors and Technicians

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(Operators) whose technical and practical competence is assessed by FIRAS Inspectors in the trade disciplines for which certification scope is held. A register of competent employees is maintained for each certificated company, which is regularly reviewed to ensure that the company maintains a competent workforce whose abilities remain current with the work scope the company provides.

Once certificated, all FIRAS Registered Installer Companies are subject to ongoing random inspection of their installation work on ongoing contracts along with an annual audit of their office systems by FIRAS Inspectors to ensure that compliance with FIRAS Scheme Requirements is maintained.

A4.4.4 Fire Door Register

A maintenance log should be kept and all doors given a unique reference number. Each building should have its own Register – a copy of which should be kept in the building.

A4.4.5 Maintenance of Fire Doors

Regular maintenance of fire doors is also required, which will ensure all escape routes are protected and maintained in a safe condition.

A4.4.5.1 Why is it important to maintain a Fire Door?

Just like any passive or active fire protection system, it is essential for a fire door to perform its vital task in the event of a fire. As with any similar life-saving product, a fire door should be regularly checked to ensure it functions properly and is ready to use. It is exactly the same as testing the battery of a smoke alarm or having the pressure of a fire extinguisher checked regularly.

Most of the time, a fire door is used like any other door, and is subject to the day to day wear and tear of opening and closing as people pass through. The building and the surrounding environment can also change and affect the door. It is important to check if regular use or changes to the surroundings affect it in any way.

Any slight alteration to the door or its surroundings can affect the performance of the door. This can result in a half hour fire door lasting a lot less.

So, once a fire door has been installed correctly, it needs to be maintained regularly to ensure that everything is in working order.

Periodic checks should be carried out at least once every **six months**. Newly occupied buildings may require more frequent checks in the first year of use. Where a door is heavily used, it should be checked every **three months**.

A4.4.5.2 Follow the instructions

Every Fire Door produced by a BWF-CERTIFIRE Scheme Manufacturer is supplied with the Installation, Care & Maintenance Instructions. These instructions will tell you how and when to maintain that particular door.

As a helpful guide some of the most important points to be considered are listed below, the key areas you should include in your periodic maintenance checks

The door and frame must remain square and should not be able to distort between the stiles, top and frame. The gaps must not be greater than those specified in the manufacturers' installation instructions- typically 3-4mm. This is also true for the meeting stiles of double

doors. If the door leaves have minor surface damage, then these can be repaired. However, if there are any major defects in either the door leaves or the frame, they must be replaced.

If the glass is cracked or broken, then it must be replaced **immediately**. If not, then in the event of a fire, the smoke and gases will travel through the glass, which means that the fire door will not last its fire rating. This work must only be undertaken by companies with appropriate third party certification or by FIRAS accredited installers.

If seals have been badly fitted or are damaged, then they must be replaced with the same type that was originally specified. If the smoke seals have to be replaced, then they should be fitted in one continuous length if possible. If fixed piecemeal, they could potentially leak at the joints. You should remember that loose smoke seals left flapping can damage a fire door beyond repair.

With a self-closing device, open the door fully and check it closes without binding on the floor. Open the door to approx. 5 degrees and again check that it closes fully, overcoming any latch or seal. Check door closing speed to be approx. 10 seconds from 90 degrees and ensure that the door does not slam. Adjust speeds as necessary. Ensure that doors are not being wedged open.

Make sure that door hold open devices are not straining the door against its self-closing device. A closer fitted at the top of the door should have the hold open device fitted at the top of the door. A floor spring at the foot of the door should have the hold open device fitted at the bottom.

Check that mechanical hold-open devices have not been fitted. Hold-open devices on fire doors should be electro - magnetic and connected directly to the fire detection and alarm system, so that they can be released automatically if there is a fire. If fitted, make sure that any electro-magnetic hold open device is operating correctly and releases immediately when power is removed.

Make sure that all fixings are secure. Some hinges, closer arms and locks might require lubrication.

REMEMBER, where required YOU MUST REPLACE COMPONENTS LIKE-FOR LIKE, ACCORDING TO THE ORIGINAL SPECIFICATION

Hinges - Check that there is no visible wear. Any dark marks or stains around the hinge knuckle could indicate wear and impending failure, meaning the hinges should be replaced as soon as possible.

Locks and lever handles - Check that the levers fully return to the horizontal after use and that the latch bolt is engaging smoothly and completely into the strike. Wipe any metal dust deposits off the latch bolt and strike plate. Adjust, lubricate or replace as required.

BS5499 lays down standards for the size and siting of Fire Door Safety Signs. Signs should be fitted on all non-domestic fire doors and be visible at eye level. If these have been tampered with or removed, they must be replaced.

Fire doors are finished with a variety of facings which require different methods of cleaning. The manufacturer's instructions will give full details.

You must ensure that the BWF-CERTIFIRE label is in place. You will find it either on top of the door or just below the bottom hinge if it is a door set.

This must never be tampered with in any way, including painting over it, as doing so will invalidate the certification.

A4.4.5.3 Fire Door Maintenance Checklist

- Has the fire door got a BWF-CERTIFIRE Fire Door Scheme label on the top edge?
- If not, can you confirm that the door is in fact a fire door and has been certificated as such?

Door Leaf

- Does the door leaf sit against the door stop, flush with the frame and is it free of distortion?
- If the door is veneered or lipped, is the glue still holding these products firmly in place?
- Is the door free from damage including dents, chips and holes?

Door Frame

- Is the door frame firmly attached to the wall?
- If a planted door stop is present, is it firmly attached?
- Is the frame to door leaf gap consistently 3mm?

Intumescent/Smoke/Acoustic Seals

- Are intumescent seals in place? (If not install immediately)
- Are seals free from paint or varnish?
- Are the seals well attached inside the groove in the frame or door leaf?
- Are the seals free from damage?
- If you have a brush or fin type seal, is it free from damage or breakage?
- If fitted, are the smoke and acoustic seals continuous around the frame or door leaf?

Hinges

- Is there a minimum of 3 hinges with all the screws fitted?
- Are all the screws the correct size?
- Are the hinges free of metal fragments and oil leakage, which are signs of wear?
- Are the hinges free from packing?
- Are the hinges marked with CE stamp or BSEN 1935 grade 13

Door Closers

- Open the door to 5 degrees or 75mm. Does it close and engage with the latch?
- Is the closer correctly attached to the door and frame?
- Is the closer free from damage and not leaking?
- If unlatched, does the closer hold the door in line with the frame and intumescent seal?
- If hung in pairs, do they close in line if both opened and released together?

Hold Open Devices – only electronically powered allowed

- Does the hold open device release the door when required?

Lock and Latch

- Does the latch hold the door firmly in place without rattling?

Glazing and Glass

- Is the intumescent seal continuous and attached to the glass and bead?
- Are the glazing beads well attached to the frame and free from damage?
- Is the glass free from damage and cracking?
- If the glass has been replaced, is it fire rated glass?
- If glazing panels are below 1500mm from bottom of door, is the glass safety glass?

Threshold Gap

- Is there a consistent gap under the door that allows it to swing without touching floor covering?
- Is the door to floor covering gap consistently 10mm or less when the door is closed?

If the Fire Door does not pass ALL aspects of this Checklist then it may fail

Appendix 5 - Training Requirements

Role	Initial Training	Refresher	Frequency	Comments
Fire Safety Advisor	<p>As a minimum: The NEBOSH: National General Certificate in Occupational Health and Safety and NEBOSH National Certificate in Fire Safety and Risk Management</p> <p>Or The Fire Protection Association (FPA): Fire Risk Assessment and Fire Risk Assessment & Fire Safety Management</p> <p>Or Demonstrable equivalent qualifications.</p>			<p>The Fire Risk Assessment Competency Council are developing competency criteria for Fire Risk Assessors noting the very broad range of experience and knowledge required to be an effective Fire Risk Assessor.</p> <p>In addition to the training detailed, the FSA must have an understanding of construction methods and services in the buildings for which they are responsible maintained by relevant regular training.</p>
Hot Work Permit Assessor	1 hr in-house training course		3 yearly	
Building Fire Manager	1 hr in-house training course		3 yearly	
Building Warden	2 hr in-house training course		3 yearly	
Members of AIT, ERT or site ICOs	<p>Additional Fire training if required by their specific role. First Aid training if required by their specific role. Familiarisation and on the job training covering:</p> <ul style="list-style-type: none"> • Emergency Procedures • Fire Panels • Building Layout and structure • Local emergency contacts 		<p>Fire, Annually where required. First Aid refresher, annually where required. Update training as appropriate.</p>	
Staff, tenants,	Where they spend on average greater than 2 days/week over a 3			

contractors and visitors	<p>month period at an STFC site attend the mandatory Fire prevention and extinguisher use training provided by that site, see STFC SHE Code 10, Provision of SHE training Appendix 1. Additionally they will most likely take part in a Fire Drill (carried out at least annually for each building).</p> <p>NOTE: Individuals working at several STFC sites should attend the fire training at each site as fire response and procedures at each site will differ.</p>
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Appendix 6 - Audit Checklist

Ref	Item	Comments
1 (Section 4.1.1)	Does a documented site emergency plan exist?	
2 (Section 4.1.2)	Have individuals been appointed to the roles defined in the plan?	
3 (Section 4.1.3) (Section 4.1.4)	Is the plan tested annually and then updated accordingly?	
4 (Section 4.1.5)	Have one or more Fire Safety Advisors been appointed for the site?	
5 (Section 4.2.1)	Have Building fire Managers been appointed to cover all buildings used by the department?	
6 (Section 4.2.2)	Have sufficient Building wardens been appointed, and are the records kept up to date?	
7 (Section 4.2.3)	Have Hot Works Permit Issuers been appointed?	
8 (Section 4.3.2)	Has the BFM chaired a FRA review meeting in the last year?	
9 (Section 4.5.1)	Is there evidence of suitable and sufficient maintenance of the relevant site infrastructure?	
10 (Section 4.5.5)	Do a comprehensive and up to date set of building drawings exist?	
11 (Section 4.5.6) (Appendix 2)	Is there evidence that the work on Fire Detection Systems is being done using a Permit to Work system?	
12 (Section 4.6.2)	Do complete FRAs exist for all buildings?	
13 (Section 4.6.4)	Has a Fire Drill been carried out for every building within the last 12 months?	
14 (Section 4.6.3)	Is there evidence of inspection - and where necessary maintenance - of all Fire Extinguishers – portable or fixed?	
15 (Section 4.6.6)	Have all False Fire Alarms been investigated to determine the route cause?	
16	Are frequent fire training sessions provided for those on the site?	

(Section 4.7.1)		
17 (Section 4.7.1)	Are training records updated regularly?	
18 (Section 4.8.2)	Has advice been sought to produce PEEP's when required?	
19 (Section 4.8.5) (Section 4.9.2) (Appendix 3)	Is there evidence that Hot Works are being done under a Hot Works Permit.	
20 (Section 4.1.2) (Section 4.1.3) (Section 4.1.5) (Section 4.4.1) (Section 4.8.1) (Section 4.9.1) (Section 4.10.2) (Appendix 5)	Have staff, long term contractors, tenants etc. undertaken relevant training/refresher training for their role within the appropriate timescale?	

Appendix 7 – Document Retention Policy

Records Established	Minimum Retention Period	Responsible Record Keeper	Location of Records	Comments / Justification
Fire Risk Assessments	Current + 5 Years	SHE Group	Evotix Assure	SHE Group Maintain Evotix Assure facility
Fire extinguisher maintenance records	Current + 5 Years	SHE Group at RAL & DL	Local Record Systems	
Fire extinguisher maintenance records	Current + 5 Years	Estates at ROE	Local Record Systems	
Inspection and maintenance records for fire systems	Current + 5 years	Estates	Local Record Systems	Call points, detectors, alarms, bells, emergency lighting etc.
Appointments:				
Fire Safety Advisor	Most Recent	Director with SHE oversight	SHE Directory	Appointment Letter
Building Fire Manager	Most Recent	Director	SHE Directory	Appointment Letter
Building Warden	Most Recent	Director	SHE Directory	Appointment Letter
Hot Work Permit Issuer	Most Recent	Director	SHE Directory	Appointment Letter