

SITE INSTRUCTIONS AND SAFETY REGULATIONS FOR CONTRACTORS AND OTHERS CARRYING OUT WORKS ON ROYAL AIR FORCE MUSEUM SITES AT LONDON, COSFORD & STAFFORD

These instructions are to be read and complied with by all contractors and others who carry out work to Royal Air Force Museum ('the Museum') buildings, plant and installations. They apply equally to contractors employed by the Museum and to contractors or others who carry out work, e.g. for event organisers and the like. This document will refer to all such persons as contractors.

These instructions are in addition to any contractual terms and conditions and are intended to brief contractors on safe methods of work, fire safety precautions and particular hazards on the site. Details of fire evacuation procedures are held separately at each site.

1. Insurance: All contractors working on the Museum sites are required to carry certain levels of insurance. The following is an extract from our standard terms and conditions and details the insurance requirements that must be met.

- a) The Contractor shall have in force and shall require any Sub-Contractor to have in force:
 - i. Employer's Liability Insurance;
 - ii. Public Liability Insurance for such sum and range of cover as the Contractor deems to be appropriate but not less than £5,000,000 for any one accident unless otherwise agreed by the Museum, in writing;
 - iii. Contractor's all risk insurance against loss or damage to the works and things for which the contractor is responsible under the terms of the contract for the full reinstatement thereof (including transit and off site risks) plus 15%.
- b) All such insurances shall be extended to indemnify the Trustees of the Royal Air Force Museums against any claim for which the Contractor or Sub-Contractor may be legally liable.
- c) Copies of insurance certificates shall be sent to the Buildings & Services Manager together with satisfactory evidence of payment of premiums.

2. Fire Evacuation Procedures: Full fire evacuation procedures are held on each site and are available for inspection. Fire safety instructions will form part of safety induction briefing.

3. Health and Safety: The Museum must ensure (as far as is reasonably practicable) that all its contractors are competent and are properly qualified. We therefore ask for contractors who have not previously worked on RAF Museum sites to provide company profiles, complete a safety questionnaire and/or (where applicable) proof that the company belongs to any trade organisation or registration schemes. For example, all electrical contractors must be NICEIC (National Inspection Council for Electrical Installation Contracting) approved and gas installers

must be 'Gas Safe' registered. Please note that the latter may also apply to some bottled gas installations and storage.

- a) In addition to the above, contractors are also required to provide copies of risk assessment and method statements not less than two working days prior to commencement of work. These will be reviewed in order that we may assess or understand any particular risks. Agreement to certain methods of work being used and assessment of levels of risk, etc. in no way relieves or lessens the contractors' responsibility and/or liability to carry out the work in a safe and proper manner and in accordance with all relevant legislation. All works must be managed and supervised by the contractor. The Museum will liaise with the contractors' representative and do everything necessary to facilitate the works, but nothing said by staff or others connected with the Museum shall imply that the Museum or its employees take any responsibility for the supervision and/or organisation of the works.
- b) Where works are subject to CDM regulations the Museum will appoint a CDM -Coordinator.

4. Particular Hazards: The following should be taken into account by the contractor when assessing and determining safe methods of work.

- a) Asbestos: Some asbestos material remains in buildings on our sites at London, Cosford and Stafford. Asbestos cement, and Asbestos Insulating Board (A.I.B.) as linings to walls, ceilings, and cladding to steel columns, some ceilings have an 'Artex' coating which contain small amounts of asbestos, and gaskets on older pipework installations may contain asbestos. All locations where asbestos has been found in buildings are listed together with information about the type and condition. All asbestos except that in Artex ceilings have warning labels attached. This information is available at each site and must be taken into account during the risk assessment process prior to commencement of work. Some aircraft and artefacts may also contain asbestos. Information about asbestos in aircraft is held on aircraft logbooks and in the Museum's artefact database (CMS) system. If in doubt about the presence of asbestos, found during the course of the work stop and consult Building Management staff.
- b) Flooring contractors and engineers are to note that Asbestos Insulating Board runs below 'finrad' heaters in the West Galleries and first floor offices. In some areas, it has been overlaid with carpet. This carpet will therefore have to be lifted by a registered asbestos removal contractor. Finrad heaters can be moved with care without disturbing the underlying asbestos. Some vinyl tiles may also contain asbestos cement and may be hidden below other floor coverings. Always consult with building management staff before lifting floor coverings.
- c) An "Aquacell" drainage system covered with a pebble topping, runs around the perimeter of the Cold War Exhibition building on the museum's

Cosford Site and this is to be treated as an underground void. It will not support any load, e.g. from scaffolding or plant.

- d) Confined Spaces: Some areas have been designated as confined spaces in accordance with the Confined Spaces Regulations. These are listed on a Confined Space Register for each Site. Entry will only be permitted to contractor's operatives who have received specialist training and have been issued with all necessary safety equipment. The specialist contractor will be responsible for issuing a Permit to Work which shall be copied to the Buildings Management staff.
- e) Electricity - London: All Museum supplies on the London site are 415 volts or below. A standby generator and Uninterrupted Power Supply (UPS) system provides standby power to some circuits in the main hall, external floodlighting, the Security Control Room and telephone system, (see section 5). Small battery powered UPS units provide 230 volt power to some computer circuits, including those in the server room.

An electricity company high voltage (132kv) supply runs in an oil-filled cable under the stone surfaced car park, and passes in front (north) of the Workshops building, south of Milestones of Flight building and around the rear of the Milestones building and the Bomber Command Hall. An 11kv cable runs (alongside a gas main)* from Grahame Park Way, passing on the north side of Battle of Britain Hall, crossing the car park to the south side of service road, then running on the north side of the Workshops building and across grassed area to south side of Milestones of Flight building. Further underground supplies feed an electrical substation at the north end of the site. Drawings are held on site at London. See also Section (5) below. A Permit to Work is required from the Museum before carrying out any excavation (or erecting any marquees where metal stakes are driven into the ground).

- f) Electricity - Cosford and Stafford: High voltage supplies (above 415 volts) on the Cosford and Stafford sites run underground between buildings and to electrical sub-stations, and are the responsibility of the Royal Air Force. Sockets for connection of temporary standby generators are fitted in Hangar 1 at Cosford. Drawings are held on site at Cosford. Small battery powered UPS (Uninterrupted Power Supply) units provide 230 volt power to some computer circuits. See also Section 5 below.
- g) Gas: Mains gas is supplied to the majority of buildings at London and Cosford.
- h) Stafford: Roller Shutter Doors in fire wall are connected to the fire alarm system and will drop in three seconds. Do not linger or work in the vicinity of these doors without prior approval and installation of safety props to prevent doors dropping. Some adjacent RAF buildings at Stafford are a potential fire hazard and smoking and the use of mobile phones anywhere on the RAF or Museum site or buildings is prohibited. Building 29 is a radiation store for the Museum and access is to be permitted only with

prior approval, in writing, from the Museum Radiation Safety Officer who will issue a Risk Assessment and Method Statement.

- i) Bird Droppings: Bird droppings can be harmful to health. Do not disturb these areas. Ask Building Management staff to arrange for specialist cleaning before proceeding with the work. Internal areas at Stafford and roof areas on all buildings on all sites may be affected.
- j) Roof Access: A permit to work (issued by the Museum) will be required before gaining access to any roof areas.

Information given in this section is intended to draw attention to known hazards and to assist contractors to produce method statements and risk assessments. The list cannot be considered to be an exhaustive list of all hazards on site.

5. Electrical Works, Safety Procedures: No electrical works are to be carried out on any Museum site without the approval of the site electrician employed by the maintenance term contractor (currently MITIE TFM). This will be given in writing on an “Approval for Contractor to Carry Out Work on Museum Site” form. An “Electrical Permit to Work” form may also be issued by the site electrician where appropriate. The recommendations of HSE Guidance Booklet: Electricity at Work, Safe Working Practices shall be followed. No work on or near live conductors will be permitted and a Permit to Work form will always be required for circuits fed by standby generators or UPS systems.

- a) At Cosford and Stafford (in addition to that described above), a “Permit to Work” system administered by the RAF also operates when it is necessary to isolate supplies over 415 volts or on circuits fed by standby generators. These will be issued by an Authorised Person appointed and employed by the MOD or RAF. Building management staff will make the necessary arrangements.
- b) Where necessary to ensure a system of safe working a lock off procedure shall be used to protect all personnel working on electrical/mechanical equipment. The Lock off system will apply to all, site staff and outside contractors. A set of “lock off devices” and “safety padlocks” are obtainable from the site electrician. The lock off devices can take up to six (6) padlocks, there are six (6) padlocks available all coloured RED numbered from one to six, each lock has an individual key, and all spare keys have been destroyed. When an electrical circuit or item of plant/machinery has to be worked on, it must be isolated and locked off with a lock off device, when there is more than one person working on the equipment operatives must fit a safety lock to the device and keep the key on their person. If someone decides to perform another task on the equipment while it is isolated, s/he must also fit a lock. This procedure will ensure the equipment is not re-energised until all involved staff have finished their tasks and removed their safety locks. The ‘lock off’ devices and safety padlocks are to be signed out on the register sheet attached to the safety keyboard.

- c) Portable Electric Appliances: These must be tested in accordance with Institute of Electrical Engineers Approved Code of Practice.

6. Fire Safety Precautions: All Museums' sites at London, Cosford and Stafford are full of unique and irreplaceable artefacts. Stringent fire precautions must therefore be observed.

- a) No flame, spark or heat producing apparatus or bitumen boilers or the like are to be used on Museum sites except in exceptional circumstances. Where the use of flame/spark/heat producing apparatus cannot be avoided, strict control methods shall be followed. Following assessment of the area where the work will take place a hot work certificate will be completed and issued to the contractor. The terms of the certificate must be strictly complied with. Hot Work Certificates may be issued by any of the following Museum staff:

Buildings & Services Manager – all sites
Work Services Manager Cosford
Workshop Manager London
Aircraft Restoration Technicians Cosford

- b) Fire exits must not be blocked.
- c) Combustible materials and arisings must be cleared away on a regular basis and at the end of each day's work. Cleaning fluids, thinners and the like must be kept in a flameproof container positioned in an agreed external location. Only minimum quantities necessary to undertake the works shall be taken inside buildings.
- d) Holes for services shall not be formed in walls without the approval of Building Management staff must be made good with approved fire resisting materials.
- e) Security staff must be informed before carrying out any work which may create dust in the vicinity of automatic fire detector heads. A zone of the fire detection system will be isolated to prevent false alarms. Contractors must inform security staff as soon as work has been completed so that the system can be turned back on as soon as possible following completion of the work.
- f) Smoking is not permitted in any of the Museums buildings.
- g) Smoking is not permitted anywhere within the RAF site at Stafford.

7. Working in Occupied Areas: Great care must be taken when working in public areas and around old and sometimes fragile exhibits. Particular care must be taken when working around fabric covered First World War aircraft. All working areas must be completely closed off with barriers prior to commencement of work. This will normally be done by our security staff using our own equipment consisting of rope barriers and the like. Work and storage areas, and methods of working are all to be agreed in advance, paragraph 3(a) also refers. In particular, it must be remembered

that members of the public are listening and watching your actions; children may pick up tools left lying around or injure themselves if machines are left with power supplies on when unattended. Ladders and scaffolding can also attract children. They must not be left unattended. They must either be removed or physically prevented from being used.

- a) Mobile Elevated Work Platforms (MEWP): Museum owned or hired MEWP may be used by contractors with prior approval. Operators must hold a relevant photo ID/training certificate, (see below) and have written permission from their employer to use the equipment. The Museum will not accept responsibility from any incident relating to contractor's misuse of the equipment. When working overhead, operators will be required to tie all tools to access equipment or to belts or the like so that they cannot be dropped onto items below. Operators must wear safety harnesses and hard hats with chin strap. A person must remain at ground level to act as lookout to protect both the operators and persons and objects below. The area of operation must be protected with barriers to stop people wandering into the work area.
- b) All MEWP and other plant, e.g. Forklift trucks, shall only be driven and operated by persons who hold a photographic ID and proof of training by an accredited firm for the type unit that they will be operating.
- c) Movement of large exhibits: Where the risk of damage is considered too great or for reasons of difficult access, aircraft or artefacts will be moved. This often requires careful advance planning however and cannot be done at short notice.
- d) Protection, dust covers and the like: Working areas must be properly and adequately protected. Methods of protection must be agreed in advance. Where polythene is to be used to protect floors it must be non-slip. Where extra protection is required, it shall be overlaid with hardboard. Polythene must not be laid directly over aircraft and some other exhibits as it may scratch the surface. Clean dust sheets shall be used to protect these surfaces and then covered with polythene. A member of our curatorial staff must be present to supervise operations to cover and protect aircraft and exhibits. On no account must any attempt be made to cover fabric-covered aircraft.

8. Working in Office Areas: Most of the above applies equally to offices. Particular care must be taken to protect computers and other electrical equipment that may be affected by dust. Do not work in offices without permission. Do not attempt to move personal belongings or equipment. You should be given every assistance to ensure the working area is ready for you. Contact the Building Management staff in case of any difficulty.

9. Restrictions:

- a) Movement around the Site and Vehicle Access: Comply with speed limits and parking restrictions. Every effort will be made to allow

operatives to park vans, etc. in locations near to the work area but all private vehicles must be parked in designated parking places.

- b) Keep to designated walkways when moving around the Museum. Do not take shortcuts; keep off display floors unless needed for direct access to your work area.
- c) Do not use restaurant or other rest facilities whilst wearing overalls or dirty work clothing.
- d) A safety briefing will be given to all operatives before they start work on any of the Museum sites to draw attention to particular hazards, advise them of fire evacuation procedures and first aid facilities. Access will not be permitted unless the relevant Approval and/or Permit to Work form has been issued by designated Building Management staff which will have been countersigned by the contractor's representative who will be responsible for supervising the work. The Approval and/or Permit to Work will restrict the contractor to the work described, its location and the agreed method of working.

10. Materials and Workmanship: To comply with and be carried out in accordance with appropriate European or British Standards, Approved Codes of Practice, etc.

11. Miscellaneous:

- a) Ground Excavation: No excavation will be carried out until the contractor is satisfied that all underground services have been located and a Permit to Work has been issued. The Buildings & Services Manager will assist and provide details of any recorded information but the Museum cannot take responsibility for any errors or omissions in providing such information. If in doubt, the excavation shall be carried out by hand.
- b) No stakes or the like shall be driven into the ground (e.g. for the erection of marquees) without the approval of Building Management staff.

12. Site Personnel: Names and telephone numbers are listed below. We will be pleased to discuss details of any proposed works.

Buildings & Services Manager (All sites):

Mike Gell: Direct Number: 0208 358 4892
London Museum Switchboard: 0208 205 2266
Mobile: 07885 401119

Work Services Manager (Cosford):

George Letford: Direct Number: 01902 376209
Cosford Museum Switchboard: 01902 376200
Mobile: 07967 012008

Out of Hours, All Sites 0208 205 2266