



**Science and  
Technology  
Facilities Council**

# **Work on buildings, premises, services and infrastructure**

STFC SHE Code 19

Issue No. 1.9 August, 2023

## Revisions

1	Initial Launch	October 2008
1.1	Revision to include SWMP	February 2009
1.2	Amendments to audit checklist	May 2013
1.3	Addition of Excavation Appendix	February 2014
1.4	Document Retention Policy Added	August 2014
1.5	Removed para 4.5.3 (audit action)	September 2015
1.6	Added lab/area clearance checksheet	July 2016
1.7	Added focus on asbestos management	June 2017
1.8	Minor change to reflect the launch of SHE Assure	October 2018
1.9	Minor addition 4.1.3 and addition of copy of Excavation permit in Appendix 6	August 2023

# Work on building, premises, services and infrastructure

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# Work on building, premises, services and infrastructure

## 1 Purpose

A fundamental responsibility of employers is to provide a safe working environment; and the provision of safe buildings is an integral part of that responsibility.

The installation of new buildings and building services, subsequent modifications and maintenance of the same is covered by the Health and Safety at Work Act and a number of statutory regulations including:

- The Management of Health & Safety at Work Regulations 1999
- Workplace (Health, Safety and Welfare) Regulations 1992, amended 2002
- Construction (Design and Management) Regulations 2015

To ensure compliance with these legal requirements, this work must be effectively controlled, planned, managed, and undertaken by competent individuals. This will involve effective cooperation, coordination and communication between all of the parties involved, in particular occupants (residents/tenants), contractors and site/estates management teams.

Primary responsibility for the provision of safe working environments and safe buildings resides with Estates Groups who undertake and manage building works at STFC sites. Other staff will only carry out such works on the authorisation of respective Heads of Estates Groups.

## 2 Scope

This code applies to all STFC owned sites and includes:

- Construction of new buildings and building services;
- Modifications to existing buildings and services;
- Mechanical and electrical services including hard wiring or plumbing services serving scientific or office equipment into existing building services;
- Maintenance of buildings, building services and the premises;
- Maintenance of records;
- Substantially increasing floor loading or positioning of heavy loads on existing floor or suspended floors;
- Change of use of an area;
- Attaching equipment and loads to the internal and external fabric of buildings;
- Routing data or communications cabling; and

- Permanently positioning equipment externally in the estate (greater than 6 months).

Other SHE reference material related to activities detailed in this code include:

STFC SHE Code No 4 Safety and the Safe use of Work Equipment  
 STFC SHE Code No 6 Risk Management  
 STFC SHE Code No 9 Work at Height  
 STFC SHE Code No 13 Construction (Design and Management)  
 STFC SHE Code No 15 Management of Contractors  
 STFC SHE Code No 17 Portable Electrical Equipment  
 STFC SHE Code No 32 Fire and Emergency Management  
 STFC SHE Code No 34 Electricity  
 STFC SHE Code No 35 Asbestos Management

This code does not apply at the STFC Swindon Office where the STFC is a tenant of the Research Council site operated by Joint Building and Operations Services (JBOS) and hosted by the Biotechnology and Biological Science Research Council (BBSRC).

### **3 Definitions**

#### **3.1 Building Work**

'Building work' means all work that involves any of the following:

- Construction/installation of a new building or structure including their plant and services. This includes internal buildings such as beamline hutches;
- Repair or maintenance of an existing building, structure and building plant and services including external structures and ducts;
- Positioning or repositioning of heavy objects/equipment likely to substantially increase floor loading, see Appendix 1;
- Disturbing the fabric of a building or its services including drilling holes through walls to provide access routes for services to experimental facilities, and minor alterations such as fixing pictures, whiteboards, erection of wall mounted shelving etc;
- Installation of new building services into an existing building;
- Modifying the fabric of the building, modifying building services or hard wiring/plumbing into existing building services infrastructure;
- Routing data or communications cabling;
- Excavations including trenching for underground services. See Appendix 6; and
- Demolition of a building or structure.

### **3.2 Building Work Co-ordinator**

Suitably qualified and appointed person who co-ordinates the execution of building work, see Appendix 5. This will normally be a member of Estates unless agreed by the Head of Estates Groups.

### **3.3 Estates Groups**

This generic term is employed to address the differing terms and models employed for estates management at STFC sites where responsibility is designated as follows:

- at RAL (including the Cosener's House and Chilbolton Observatory) this is the responsibility of Estates & FM (South), see Appendix 3;
- at DL it is the Estates & FM (North), see Appendix 4; and
- at the UKATC it is the Estates & SHE.

### **3.4 Change of Use**

Change of use means:

- Substantially changing the function of a room/area which changes the hazards inherent to the area for example its structural loading or its fire risks (e.g. from an office to chemistry laboratory or vice versa);
- Changing the layout in a room or area such that it significantly alters the distances staff have to travel in order to reach an emergency exit; and
- Significant changes in equipment that may affect the capacity of incoming (gas, water, heat, electricity) or outgoing (effluent) services.

## **4 Responsibilities**

### **4.1 Directors shall:**

- 4.1.1 Appoint, where required, local Building Work Co-ordinator(s) subject to the agreement of the Head of Estates Groups. The appointments should be recorded in SHE Directory where the geographic/equipment scope of the appointments should be defined.
- 4.1.2 Ensure that authorised Building Work is managed by a competent Building Work Co-ordinator and that suitable and sufficient resources and time are available to implement the requirements of this code.
- 4.1.3 Appoint suitably knowledgeable and experienced persons as "Excavation Permit Issuers"; see Appendix 6 for knowledge requirements. The appointment should be recorded in SHE Directory where the geographic scope of their responsibilities should be defined.

## **4.2 Head of Estates shall:**

- 4.2.1 Determine the training and competence required to be a Building Work Co-ordinator, see Appendix 5.
- 4.2.2 Maintain a register of Building Work Co-ordinators and ensure Building Work Co-ordinators procure, manage and undertake building work within the scope of their competence.
- 4.2.3 Agree the location of any permanent equipment to be fixed on the outside of buildings or located anywhere in the estate. Refer items as necessary to any local Building/Accommodation Committee.
- 4.2.4 Maintain up to date and accurate records and drawings of the premises.

## **4.3 Building Work Co-ordinators shall:**

- 4.3.1 Act as the focal point for the submission of proposals for:
  - Building and building services works;
  - Changes of use of an area;
  - Loadings of floors or structure;
  - Location of permanent equipment or structures within the estate;
  - Any operation that requires working on an asbestos containing material; and
  - Significant changes affecting incoming and outgoing services requirements.
- 4.3.2 Procure any design work necessary.
- 4.3.3 Check for existing hazards such as asbestos and concealed services by contacting the Estates Group.
- 4.3.4 Check the structural capacity of the building fabric and the capacity of services through Estates Group.
- 4.3.5 Obtain statutory approvals through Estates Group.
- 4.3.6 Submit the works to the local SHE group for consideration and approval and as required obtain the relevant fire authority approval.
- 4.3.7 Ensure the planning and execution of works comply where relevant with the CDM and other regulations, see Corporate Safety Code 13 Construction (Design and Management).
- 4.3.8 For a large construction projects, ensure that Waste Management is considered during the planning phase and maintained during the construction phase of the project. All asbestos waste must be managed according to SHE Code 35, Asbestos Management.

- 4.3.9 Select, engage, supervise and monitor competent trained staff or contractors to carry out the work see STFC SHE Code 15 Management of Contractors. Where work is near or could affect known or suspected asbestos containing materials, such contractors must have received Asbestos Awareness training.
- 4.3.10 Ensure suitable and sufficient risk assessments are carried out in accordance with STFC SHE Code 6 Risk Management, including fire risk assessment.
- 4.3.11 Ensure implementation of any measures resulting from the risk assessment. e.g. establishment of controlled zones, provision of PPE, RPE, issue of safety information, etc.
- 4.3.12 Arrange for the necessary permits to be issued (Excavation see Appendix 6, Hot Works, asbestos, switching of electrical supplies, etc).
- 4.3.13 Act within their competence, maintain their competence in the light of changing legislation and standards, and ensure that other competent persons, as necessary are appointed to co-ordinate and project manage the work.
- 4.3.14 Ensure appropriate tests are carried out on the services, including crane load tests, and that appropriate certification is obtained prior to handover and occupation.
- 4.3.15 In conjunction with the local SHE group ensure that fire and safety precautions are adequate and that all legal requirements have been complied with prior to the occupation of any newly refurbished areas.
- 4.3.16 Ensure appropriate records, plans, maintenance manuals and CDM files are produced and passed to the appropriate recipient.
- 4.3.17 Ensure that site plans, drawings, records, and asbestos registers are updated through Estates Group and made available upon request to all interested parties.
- 4.3.18 Ensure arrangements are put in place for periodic testing of services.
- 4.3.19 Ensure that the building work is inspected by a suitably qualified person before use and/or occupancy.

#### **4.4 Staff and Tenants**

Staff and tenants wishing to erect new buildings, modify existing buildings or their services, change the use of a room or substantially change the loading on an existing floor, significantly increase the demand on building services, fix loads to the building fabric, or permanently locate equipment on the outside of buildings and elsewhere on the estate shall:

- 4.4.1 Contact the Estates Group or local Building Work Co-ordinator to discuss their requirements.

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- 4.4.2 Not carry out any building work, see 3.1, including minor work (for example fixing pictures, whiteboards, shelving, etc), without approval from the relevant Estates Group or local Building Work Co-ordinator. Normally only the Estates Group will manage building works.
- 4.4.3 Ensure any equipment they are responsible for, or bring onto STFC sites, that contain asbestos is reported to site Estates teams to record in the asbestos register.
- 4.4.4 When clearing out an area/laboratory/workshop etc. prior to refurbishment, re-purposing or demolition consider the safety, health, environmental and disposal hazards that may arise. This checklist in Appendix 9 provides a helpful guide to considering the hazards that may arise, in particular for ionising radiation hazards.
- 4.4.5 Report all defects in buildings, premises, services and infrastructure to local Estates Groups, and as appropriate report related safety incidents or near misses to SHE Group, see STFC SHE Code 5, [Incident Reporting](#).

**4.5 SHE Group shall:**

- 4.5.1 Provide advice regarding proposed changes of use for a room or building and any impact this has for example on the fire risk assessment and fire safety, or environmental discharges or consents.
- 4.5.2 Approve major completed building works where fire safety is affected prior to such premises being occupied by staff or others.

## **APPENDIX 1. STRUCTURAL LOADING OF BUILDINGS**

### **A1.1 STRUCTURAL LOADING OF BUILDINGS**

STFC buildings have been designed and built for a large variety of uses, some of which have changed over the years. Before a change of use or an extension of existing use is made, the proposal must be referred to the Estates Group to ascertain whether the building is structurally capable of meeting the changed requirements.

### **A1.2 ATTACHMENTS AND HOLES**

Approval must be obtained from Head of Estates Groups before loads, supports or fixings are attached to columns, walls or ceilings, or holes for fixings, access or services are made in columns, walls, floors or ceilings as such loads and holes may weaken the structure.

### **A1.3 LOADS ON FLOORS**

A filing cabinet or rack may not be heavy on its own but may cause a structural overload if filled with numerous items that also may not be heavy individually. Overloading may also occur if items of insignificant individual weight are concentrated on certain parts of a floor.

Approval must be obtained from Head of Estates Groups before any load other than normal furniture is placed on a suspended floor. A layout of racks or equipment which has been agreed must not be rearranged, modified or increased without obtaining further approval.

General design floor loading figures must not be used by occupants to solve any problem, these figures are affected by a number of factors which may not be known to the occupant.

### **A1.4 SEEKING ADVICE**

The Head of Estates Groups are available for discussion on specific structural loading problems and can often assist by suggesting a modified layout or in extreme cases carrying out alterations to strengthen the structure.

### **A1.5 MECHANICAL LIFTING**

Where additional mechanical lifting facilities are proposed reference must also be made to the SHE Group.

## **APPENDIX 2. INFORMATION REQUIRED BEFORE ANY WORK BEGINS**

Before any work begins, the Estates Group should identify any existing hazards including asbestos containing materials (ACMs) and/or concealed services in the area where the work is to be carried out.

This information should be provided to the workmen in writing and where necessary, diagrams and plans should be included. The Building Works Co-ordinator is responsible for ensuring that workmen receive information about existing hazards and fully understand the implications of the information they are being given, and that they are competent to continue with the work planned. Where work planned is in areas where asbestos is present or could be present those carrying out the work must have received Asbestos Awareness training.

Sources of this information may include:

- Existing site or building plans, and or
- Results from material sampling, or the existing asbestos register.

If necessary, before the work begins, the appropriate level of survey should be carried out to confirm or exclude the presence of ACMs.

## **APPENDIX 3.       ESTATES GROUP AT RAL**

### **Responsible for:**

1. Mechanical and Electrical Maintenance and testing including:
  - Electrical systems (HV and LV)
  - Air conditioning systems (including Legionella testing)
  - Heating systems
  - Fire alarm systems
  - Compressed air systems
  - Lighting systems
  - Emergency Lighting (including testing)
  - Local extract ventilation systems (including testing)
  - Crane and lift testing
  
2. Energy Purchase
  
3. Building Maintenance including:
  - Building fabric
  - Asbestos management (including register)
  - Roads
  - Drains
  - Grounds
  - Pest control
  
4. Permits to Work
  
5. Building and Civil Work including:
  - Design and project management of all new buildings and modifications to buildings.
  - Checking floor loadings.
  - Checking building and services loads.
  - Approving location of permanent equipment to be fixed to the building fabric or located within the estate.
  - Obtaining planning permission, building control approval, water authority approval, Environment Agency approval and any other approvals necessary.
  - Maintaining record drawings and updating building CDM files.

## **APPENDIX 4.       ESTATES GROUP AT DL**

The Estates Helpdesk, provide the communication and planning focus for all buildings works – all work MUST be routed through the helpdesk.

Estates Services are responsible for ensuring that all buildings and their electrical, mechanical and fire safety services are properly installed, maintained efficiently and reliably, and are safe. Work is undertaken by direct labour and specialist maintenance service contractors whose competence is vetted regularly. High priority is given to meeting SHE and legislative requirements to high standards of customer service.

Planned preventative maintenance and upgrades based on regular monitoring and checks ensure the safe function of equipment and services and underpin the maintenance of their high reliability.

### **Electrical Services:**

- Lighting
- Power
- Fire systems and equipment service
- Electrical heating maintenance
- Support remote Energy Management by BMS system

### **Mechanical Services:**

- Plumbing & Mechanical (water, heating and plant services)
- Estates Related Air Conditioning
- Installations and Maintenance
- Managing Mechanical Contractors

The mechanical workshop is situated on the roadside outside E Block and is clearly signposted.

### **Buildings & civil work:**

- Joinery
- Key Cutting and Ordering Service
- Painting
- Asbestos Management
- Building and Civil Trades
- Grounds Maintenance

The joinery workshop is situated on the roadside of E Block, and is clearly signposted.

### **Estates Data Base**

Estates Management has undertaken a Space Utilisation, Condition and Functional Suitability Survey that is used to formulate an Estates Database and Strategy.

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## APPENDIX 5. EXPERIENCE AND TRAINING REQUIREMENTS

STFC staff involved in procuring and carrying out building work shall have appropriate experience and training to enable work to be carried out safely. In particular Building Work Co-ordinators shall have experience in the field of the work they are supervising.

For example Building Work Co-ordinators shall have electrical experience and knowledge in order to satisfactorily supervise electrical work, including knowledge of relevant legislation such as the Electricity at Work Act and the IEE Wiring Regulations. Alternatively the Building Work Co-ordinators shall engage other suitably qualified staff or consultants to provide such supervision. Staff carrying out the work shall be qualified electricians.

It is impossible to list all the experience and training required for each role as this is dependant on the specific type of work to be carried out. The following is the **minimum** general Health and Safety training that staff will be expected to have. Individual disciplines will require specific additional training.

Role	Initial Training	Refresher Training	Frequency	Comments
Building Work Co-ordinators	Building Work Co-ordinators course		Every 3 years	
	Asbestos Awareness training	See SHE Code 35, Asbestos Management		

## APPENDIX 6. GUIDANCE ON THE HEALTH AND SAFETY HAZARDS ARISING FROM UNDERTAKING EXCAVATIONS ON STFC SITES AND THEIR CONTROL

A number of health and safety hazards arise when excavation work is carried out. These can impact those undertaking the excavation and those working or moving near an excavation, adjacent buildings and the services to them.

The STFC's major laboratories are over 50 years old and have been re-developed many times complicating the history of their use and resulting in an organic development of sub soil services for which the location of sub soil hazards is not well defined.

The purpose of this document is to highlight the key hazards that must be considered when undertaking a risk assessment of any work that involves site excavation. The contents of this document have been structured to facilitate their inclusion in a specific risk assessment for the work being undertaken and focus on those specific to hazards posed by excavation. Consideration will also need to be given to the activities being undertaken in the excavated site, the equipment used if the site is outdoors the impact of prevailing weather conditions etc.

The hazards that must be considered and possible control measures are detailed in the table below:

Hazard	Impact	Potential control measures and other information
Buried services such as electric cables, gas pipes & water pipes. At RAL, a former RAF base, consider buried munitions. Underground tunnels.	Severance of services can result in the uncontrolled release of flammable gases, electrocution of those working and disruption to service supplies.	<ul style="list-style-type: none"> <li>Identify underground services prior to commencing work.</li> <li>Check available site drawings for buried services.</li> <li>Contact local service providers for information.</li> <li>Survey the site to identify indicators of electric cables such as junction boxes or street lights.</li> </ul> <p><b>Safe digging methods</b></p> <ul style="list-style-type: none"> <li>Use locators to determine the position and route of pipes or cables(frequently using them during the course of the work)</li> <li>Consider digging at side of known services and expose with horizontal hand digging.</li> <li>Regard all buried cables as alive until proved otherwise. Make dead where possible.</li> <li>Exposed cables and pipes should be supported and protected against damage by backfilling.</li> <li>Prepare an emergency plan to deal with any damage from cables or pipes.</li> </ul>
Contaminated ground arising from former site activities.	Creation of toxic, asphyxiating or explosive atmospheres in the confined space of the excavation affecting	<ul style="list-style-type: none"> <li>Contact local service providers for information on past site use. Note that contaminants can change over time due to chemical or bacterial action.</li> <li>Carry out soil tests to show the presence of any contaminants and, if present, identify suitable</li> </ul>

Hazard	Impact	Potential control measures and other information
	those working in or near the excavation site.	<p>control measures e.g. PPE, hygiene facilities, safe systems of work etc.</p> <ul style="list-style-type: none"> <li>• Certain contaminants are subject to specific legislation such as asbestos, lead, radioactive material, contact local SHE team.</li> </ul>
Collapse of sides in deep excavations.	Asphyxiation of those working in the excavation, crush injuries from weight of spoil and potential for others to fall into excavation.	<ul style="list-style-type: none"> <li>• The type of support structure used will depend on the type of ground being excavated, the length of time the excavation will be open, type of work being carried out, groundwater conditions and potential for flood, depth of the excavation and number of persons in the excavation.</li> <li>• Types of excavation supports include battering, where the properties of the soil of the excavation forms a stable sloping pile when allowed to form naturally. The sloping surface is called the angle of repose which will differ depending on the moisture content of the soil or type of spoil.</li> <li>• A more common method involves shoring the walls of the excavation with steel sheets, secured together by expandable steel struts or wooden beams. The steel sheets should be toed in at the bottom and rise above the top of the trench sides.</li> <li>• The use of trench boxes or drag boxes are a viable option for most ground conditions which allows operative to enter the excavation and can be moved along as the work progresses. It is important to note that suitable protected access should be provided as well as edge protection.</li> </ul> <p><b>NB: When working within a trench, at least two persons must be present at all times. A trench may also be designated as a 'confined space'; therefore appropriate controls should be applied. See SHE code 11 Work in confined spaces.</b></p>
Collapse of adjacent structures as a result of undermining their foundations.	Potential for adjacent structures or materials to fall into an excavation injuring those working in the excavation.	<ul style="list-style-type: none"> <li>• Where there are structures (walls, bridges, roads etc.) or buildings next to where excavations will be dug, it may be necessary to prop and/or underpin these structures to prevent the excavation causing their collapse.</li> </ul>
Falls of persons / equipment / materials into excavation and excavation vehicles.	Potential for injury arising from falls from height or falling objects.	<ul style="list-style-type: none"> <li>• Suitable barriers, signage and lighting should be used to warn people of the excavation hazards.</li> <li>• Arrange suitable access and egress facilities.</li> <li>• Provide stops to prevent vehicles from driving too close.</li> <li>• Don't stack the spoil too close to the sides of the excavation.</li> <li>• Keep excavation open for minimum time.</li> <li>• SHE code 9: Working at height.</li> </ul>
Water ingress.	Damaging service or equipment in the excavation, hindering	<ul style="list-style-type: none"> <li>• Water can enter an excavation directly from rain or sleet if the excavation is uncovered, from the run off following a downpour, through the sides of</li> </ul>



Hazard	Impact	Potential control measures and other information
	<p>egress in an emergency, drowning or weakening the excavation's integrity resulting inside wall collapse.</p>	<p>the excavation if the surrounding water table is high and through accidental damage to water pipes or nearby tanks.</p> <ul style="list-style-type: none"> <li>• One method of control is to use run off channels to a sump point where the water can be pumped away.</li> <li>• Strengthening the sides of the excavation by higher shoring and sandbagging the outside would reduce ingress of water. However continued flow of water may cause settlement problems.</li> </ul>
<p>Storage of spoil from excavation.</p>	<p>Spoil precipitates collapse of excavation walls or hinders the safe movement of others near the excavation.</p>	<ul style="list-style-type: none"> <li>• Storage of spoil should be kept away from traffic routes or from being stored too close to the excavation</li> <li>• A better alternative would be to remove the spoil from the site of the excavation especially if the excavation is going to be open for a period of time.</li> <li>• Specific consideration should be given to the location/storage of contaminated spoil to minimise the potential for further environmental damage and hazards to others. Contact SHE team to consider the environmental implications.</li> </ul>

**Further notes:**

All excavation work should be under permit to work control.

All excavations should be inspected prior to each shift while open.

# EXCAVATION PERMIT

<b>Permit No:</b> (record in log book)			
This part to be completed by the permit requestor			
Project/Job No:		Location:	
Project/Job Title:			
Description of work & method of excavation:			
Reinstatement specification:			
Means of ensuring safety around excavation:			
Relevant drawing showing area of work:		RAMS ref & date:	
Commencement Date:		Anticipated Completion & Backfill Date:	

<b>Authorisation and Acceptance</b>		
This part to be completed by the permit issuer and requestor, including page 2		
Excavation area has been scanned using 'CAT' & Genny <sup>1</sup>	Time:	Date:
I confirm that I have verified the above information and ensured that the necessary precautions have been taken. The work can proceed as defined above and the permit information has been explained to all workers involved.		
Permit issued By: <small>(Responsible Officer – Estates Services)</small>	Time:	Date:
Permit Received By: <small>(Contractor Foreman / Supervisor / Site Manager)</small>	Time:	Date:

<b>Handback and Cancellation</b>		
Permit Cleared By: <small>(Contractor Foreman / Supervisor / Site Manager)</small>	Time:	Date:
Permit Cancelled By: <small>(Issuing Officer – Estates Services)</small>	Time:	Date:
Any underground services not highlighted on record drawings? <sup>2</sup>		
Any visual or olfactory signs of contamination? <sup>2</sup>		
Recorded information distributed to Estates Condition Team RAL - <a href="mailto:ESTATESCONDITION@stfc.ac.uk">ESTATESCONDITION@stfc.ac.uk</a> ; DL- <a href="mailto:estate.services@stfc.ac.uk">estate.services@stfc.ac.uk</a>		
<b>Have underground services been altered as part of this activity?</b>	<b>Yes / No</b>	
All alterations (including additions or removals) must be reflected on the Master Underground Services drawing to ensure that it remains current.		
This permit should not be cancelled until information detailing the alterations has been passed to the CAD Records Manager. RAL - Helen Duffy (R68) - <a href="mailto:helen.duffy@stfc.ac.uk">helen.duffy@stfc.ac.uk</a> ; DL Jon Horswill (B31) <a href="mailto:jonathan.horswill@stfc.ac.uk">jonathan.horswill@stfc.ac.uk</a>		

SECTION: ELECTRICAL SERVICES – Check drawings / seek advice		
Power Cables HV	Yes/No	SPECIAL INSTRUCTIONS:  Responsible officer: ..... Tel: ..... Date: .....
Power Cables LV	Yes/No	
Street Light Cables	Yes/No	
Fire Alarm Cables	Yes/No	
Site Alarm Cables	Yes/No	
Data Cables	Yes/No	
Other Cables	Yes/No	
Ancillary items e.g. earth mats	Yes/No	

SECTION: MECHANICAL SERVICES – Check drawings / seek advice		
Steam Mains	Yes/No	SPECIAL INSTRUCTIONS:  Responsible officer: ..... Tel: ..... Date: .....
Condensate Mains	Yes/No	
Water Mains	Yes/No	
Gas Mains	Yes/No	
Compressed Air Mains	Yes/No	
Other Piped Services Not Known	Yes/No	

SECTION: CIVIL SERVICES – Check drawings / seek advice		
Surface Water Drains	Yes/No	SPECIAL INSTRUCTIONS:  Responsible officer: ..... Tel: ..... Date: .....
Foul Drains	Yes/No	
Trade Waste Drains	Yes/No	
Active Drains (radiological)	Yes/No	
Other Drains	Yes/No	

OTHER KNOWN OR POTENTIAL HAZARDS / CONSIDERATIONS		
Adjacent buildings or structures that could be undermined	Yes/No	SPECIAL INSTRUCTIONS:  Responsible officer: ..... Tel: ..... Date: .....
Potential for unauthorised access	Yes/No	
Potential for <a href="#">contamination</a> e.g. asbestos or UXO	Yes/No	
Potential for ground stability issues	Yes/No	
Confined space management or lone working	Yes/No	
Environmental constraints such as orchids (see Estates plan), tree protection or silt run-off to drains.	Yes/No	

## Closed permit to be retained by Estates

**Notes:**

1. A cable avoidance tool 'CAT' & Genny must be used to help locate inactive or redundant services and obstructions.
2. Excavation is to stop immediately if any unidentified service or obvious contamination is located. Seek advice from Estates Services.
3. The permit is to be returned to the Issuing Officer after completion of the work.

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## APPENDIX 7. AUDIT CHECKLIST

Ref	Item	Rating	Comments
1 (Section 4.1.1)	Have all Building Work Co-ordinators (BWCs) been appointed by Directors and been approved by the Head of Estates.		
2 (Section 4.1.2)	Is all building work under the control of Estates Group or BWCs?		
3 (Section 4.2.1) (Appendix 5)	Have BWCs been suitably trained?		
4 (Section 4.2.4)	Have site drawings/plans been updated following work managed by Estates Group or BWCs?		
5 (Section 4.3.15)	Has all work affecting the fire safety of premises – of buildings or parts of building - been inspected and approved by SHE Group prior to occupancy?		
6 (Section 4.3.14)	Have all building services been tested prior to occupancy and there after according to their maintenance schedule?		
7 (Section 4.1.2)	Are BWCs competent to manage the projects under their control?		
8 (Section 4.2.2)	Is register of BWCs up to date?		
9 (Section 4.3.8)	For large construction projects, has Waste Management been considered and maintained?		

**APPENDIX 8. DOCUMENT RETENTION POLICY**

<b>Records Established</b>	<b>Minimum Retention Period</b>	<b>Responsible Record Keeper</b>	<b>Location of Records</b>	<b>Comments / Justifications</b>
Site building drawings and maintenance records	Current	Estates	Local records systems	
<b>Appointments:</b>				
Building Work Coordinator	Most Recent	Director	SHE Directory	Appointment Letter

## APPENDIX 9. LABORATORY/AREA CLEARANCE CHECKLIST

<u>Location</u>		
<u>Person(s) responsible for the laboratory/area before clearance</u>		
<u>Assessment undertaken by : -</u>		
<u>Date</u>		
	<u>Status</u>	<u>Any action required and by whom</u>
List all hazards shown on Hazard Poster		
Any other local signage indicating hazards		
<ul style="list-style-type: none"> <li>• <b>Nature of any radiation hazard? E.g. sealed sources; contamination etc.</b></li> </ul> <p><b>Is/was the area designated a radiation area?</b></p> <ul style="list-style-type: none"> <li>• Controlled/supervised?</li> <li>• Date Health Physics notified of clearance?</li> </ul>		
<b>BEFORE CLEARING COMMENCES</b>		
<ul style="list-style-type: none"> <li>• <b>If any radiation hazard is noted in section above - Seek advice from RPA</b></li> <li>• Is any Health Physics action required before clearance commences, if so what?</li> <li>• Results of any Radiation monitoring?</li> <li>• Any radioactive sources removed?</li> <li>• ISOSTOCK updated?</li> <li>• Any radioactive items removed?</li> <li>• Yellow/Blue Label required?</li> <li>• FULLSTOCK updated?</li> <li>• <b>Health Physics clearance granted by:-</b> <ul style="list-style-type: none"> <li>• Date area de-designated: -</li> </ul> </li> </ul> <p><b><i>If any material is found during the clearance which is suspected to be radioactive – contact RPA as soon as practicable.</i></b></p>		
<ul style="list-style-type: none"> <li>• Current drawings of all services available?</li> <li>• Identify electrical power connections &gt; 13A and confirm status                             <ul style="list-style-type: none"> <li>• Is any equipment still connected?</li> <li>• Are 13A outlets still live?</li> <li>• Any battery banks or UPS?</li> </ul> </li> <li>• Emergency Exits marked – safe access and egress? No obstructions, does signage lead out of building?</li> </ul>		

	<b>Status</b>	<b>Actions</b>
<p>SHE GROUP notified of clearance?</p> <p>Building Fire warden notified of clearance?</p> <p>Is any equipment covered by statutory testing? E.g. lifting; pressure systems, LEV?</p> <p>Are any First Aid equipment/boxes located in the area?</p>		
<b>Chemicals</b>		
<ul style="list-style-type: none"> <li>• Chemical cabinet?</li> <li>• MSDS sheets for contents?</li> <li>• Spillage arrangements?</li> <li>• Disposal arrangements?</li> </ul> <p>Were biological hazards present in the lab? Is any sterilisation required?</p>		
<b>Manual handling tasks</b>		
<ul style="list-style-type: none"> <li>• Is a specific MH assessment required for any task during the clearance?</li> <li>• Are any mechanical aids required / provided?</li> </ul>		
<b>Cryogen</b>		
<p>What?</p> <p>Any storage vessels in the area? What type? pressurised? Registration numbers of any vessels Are vessels empty or can they be vented?</p>		
<b>Compressed gases</b>		
<p>Laboratory gas supplies – external supply? Isolated?</p> <p>Local supply from cylinders:- Equipment disconnected? Cylinders removed?</p>		
<b>Work at Height</b>		
<p>Are all work areas accessible from the floor? Ladders/steps/scaffolding required?</p>		
<b>General</b>		
<ul style="list-style-type: none"> <li>• Lighting suitable for the task? Any additional temporary services required?</li> <li>• Ambient temperature? – does the area require temporary heating</li> <li>• Ambient noise level? Is it likely to rise during the clearance?</li> </ul> <p>Has a risk assessment for clearance been completed and held in the STFC SHE software system?</p> <p>Ref Number?</p> <p>Is any PPE, RPE required?</p>		

	<b>Status</b>	<b>Actions</b>
<b>Disposal of equipment</b>		
Disposal of electrical equipment WEEE?  Containers required?  Skips required?		
<b>All appropriate hazards and warning signs removed?            (Assessor)</b> <b>Area clearance can proceed – approved by:            (Assessor)</b> <b>Assessment accepted by site Rigger Manager:</b>  <b>Area confirmed cleared:            (Assessor &amp; Rigger Manager)</b> <b>(RPA must also sign if any radiological hazards were present)</b>  <b>Area responsibility passed to new department by?</b>  <b>Accepted into new department by?</b>		



## **SHE Checklist for Laboratory/Area Clearance**

This check sheet should be used to identify and control any hazards in laboratories or other areas to be cleared, decommissioned, or demolished or where new equipment is to be relocated.

The area supervisor/person responsible for the area is to ensure that all staff working in the area have been made fully aware of this clearance procedure; the location and status of any remaining hazards and any actions necessary by them during the clearance work.

A copy of the signed completed check sheet should be affixed to all access doors of laboratories and areas to be cleared, by the laboratory supervisor/person responsible for the area.

Site riggers have been instructed not to clear a laboratory or undertake major relocation of equipment until they are in receipt of a signed completed check sheet.

If the area contains any radiological hazards, a completed signed copy of the check sheet should be sent to the RPA by Health Physics.