University of Essex

Permit to Work & Permit to Access Manual

Authors: Jon Rensink, Daniel Connal Partnership

Publication date: Friday, 31 March 2023

Version: 2.0

Table of Contents

Natural and Liquid Petroleum Gas

University of Essex E-Permit Panels

Introduction

The University of Essex Permit to Work (PTW) and Permit to Access (PTA) system is in place to manage all high risk activities and control access into restricted areas. This applies across all our campus's located at:

- Colchester Campus, Wivenhoe Park, Colchester CO4 3SQ
- Southend Campus, 36 Queens Rd, Southend-on-Sea SS1 1BF
- Loughton Campus, Hatfields, Rectory Lane, Loughton IG10 3RY

It is primarily run by the Estate Management team with authorised signatories from other Departments throughout the University.

The purpose of the Permit to Work system is to maintain a safe working environment within the University and it is mandatory across all elements of the estate. A Permit to Work is a method of communicating hazards and risks to those who will be carrying out the task. A Permit does not, by itself, make a job safe. This can only be achieved by fully preparing for the task, using authorised, skilled and competent people. Only trained, competent and authorised persons, who have considered foreseeable risks, are allowed to issue permits. Permission to undertake work activity will only be allowed when sufficient safety checks have been carried out and necessary precautions are in place to reduce risks as far as reasonably practicable.

For a Permit system to be effective it must be strictly adhered to by those carrying out the work. It requires coordination and cooperation between contractors and those responsible for the area or where permits to work cover adjacent areas.

Document Change Form

This Permit to Work and Permit to Access guide is a controlled document and shall be updated as required and reviewed annually or when other significant changes are needed.

Revision	Date	Amendment	Amended By
A	15.02.23	Initial Version	J Rensink Daniel Connal Partnership
B	08.03.23	Revisions made as per email correspondence from relevant UoE Estates Parties: Anthony Jackson Richard Green	J Rensink Daniel Connal Partnership
C	12.03.24	Revisions made and new sections added for additional permit types as per correspondence with: Peter Campbell Richard Green Nigel Warne Gareth Harvey David Satterly Andrew Beales	Daniel Hunt Technical Assistant UoE Estates Management
D			
E			
F			
G			

The Permit to Work and Permit to Access System

The Management of Health and Safety at Work Regulations 1999 are relevant to all activities carried out on University campus. The regulations set minimum standards for the protection of individuals from risks related to work activities, and require suitable and robust risk controls to be implemented where there are particularly high-risk areas or activities.

The University of Essex utilizes the Pisys 360 Permit to Work System ('PTW'), which is a web-based system for creating and managing Permits to Work and Permits to Access across all our Campuses, for all types of hazardous work. The implementation of this E-Permit system is in accordance with the expectations set out within HSG250.

This guide has been developed for the purpose of assisting any person applying for a Permit to Work and/ or Permit to Access. This guide is supported by arrangements, instructions, and guidance on the management of contractors which are available on the University's Health and Safety web pages. All contractors and associated sub-contractors must abide by these procedures.

https://www.essex.ac.uk/staff/health-and-safety-support/contractor-health-and-safety

During the application for a Permit to Work and/ or Permit to Access, reference should be made to Section 5 'Identification of Activities' of this document, which summarises typical risks and associated safety information associated with each activity. The checklists are not exhaustive and have been prepared as an aid memoire and must not be interpreted as a complete list of hazards and safety precautions to be considered. It is unlikely that they will cover all hazardous operations for which a Permit to Work or Permit to Access should be used and several checklists may be required to be referred to at one time.

Wherever possible, an alternative safer means to conduct the work that does not entail the need for a permit should be found.

Guidelines and Implementation

Permit to Work or Permit to Access?

A Permit to Work is required in relation to any construction, refurbishment and maintenance (including confined space working) of buildings, services and equipment for designated activities and environments. It is required for activities which are deemed to be inherently dangerous and require a higher level of control.

A Permit to Access is necessary for prescribed environments where only inspections, tours etc are required, (i.e. annual inspections, visual inspections to price or explain a scope of works).

An Authority to work is required for works considered to be low to medium risk that do not require a permit.

A full list of ‘Permits to Work’ and ‘Access permits’ can be found within Section 5 of this document.

Permit Application

It is generally expected that a permit should be applied for, a minimum of 72 hours prior to commencement of the activity/ access being made.

Applying for Permits to Work and Permits to Access on the Pisys 360 web-based system.

Once you have registered on the system, and have received your account login details, you can:

- Request a Permit to Work.
- Upload permit documentation.
- View your permit status.
- Download permit documentation upon approval.

The process for application will include the requirement to:

- Submit appropriate Risk Assessment(s) and Method Statement(s) associated with the activity.
- Submit records demonstrating appropriate competence for ALL persons involved in the delivery of the activity.
- Confirmation that all associated persons have completed the University of Essex Estate Management Induction.

Emergency Permits

Emergency permits will be issued at the discretion of an Authorised Person on a case by case basis.

Electrical Permits to Work

It is essential to note that strictly NO works take place on live electrical circuits.

Risk Assessments and Method Statements

A permit will only be issued where appropriate control measures have been identified within detailed, job specific Risk Assessments and these are supported by work Method Statements (RAMS). If inadequate RAMS are submitted then they will note be accepted and this will delay the approval process until suitable and sufficient RAMS are submitted, hence the need for 3 working days in order to assess requests. Reference should therefore be made to Section 5 'Identification of Activities' of this document, which summarises typical risks and associated safety information, associated with each activity.

Contractor Safety Information

The Contractors' Code of Practice will be pre issued to the contracting company. It must be read and understood by contracting staff attending site, where they will complete an induction and be issued with a Contractors' Handbook. It is the responsibility of the Project Manager to deal with any shortfalls identified as applicable to the nature of the works and to contact the appropriate Manager as appropriate. The Code of Practice and Contactors' Handbook can be accessed on the website via the following link: http://www.essex.ac.uk/estates/campus/contractors.aspx

Prior to entering any of our campus's and commencing works of any kind, all operatives/ persons are to complete a University of Essex, **Estate Management Section Induction**.

For the purposes of works at Colchester Campus, persons should watch the Universities Site Induction found at the link below, or alternatively viewed within Helpdesk at Estate Management. https://www.youtube.com/watch?v=x30eK84c2Uc. Inductions are required, by UoE policy, to be renewed after a period of 12 months. Induction status is stated on each E-Permit and where there is doubt of whether an induction is in date, a new induction should take place.

Separate inductions are completed at our Southend and Loughton Campus's which shall be provided to interested parties by those responsible for the works/ activity.

Upon arrival at the UoE Colchester campus, contractors are required to sign in at either the Estates Management Helpdesk between 8:00am and 16:30 pm or at the Security and Information desk outside of these hours. Before departing at the end of a shift or at completion of work, you must ensure that all contractors have signed out. Signing out can be done at either the Estates Management Helpdesk between 8:00am and 16:30 pm or at the Security and Information desk outside of these hours.

Validity of a Permit

The following conditions relating to the validity of a Permit should be noted:

- No extension beyond the time quoted on the Permit is allowed. A new Permit must be raised if an extension is necessary.
- A Permit cannot be raised retrospectively.
- A Permit Acceptor cannot transfer a Permit to another Permit Acceptor.
- Only an Authorised Person can raise and cancel a Permit.
- The Permit must be cancelled as soon as possible after ALL Permit Acceptors finish their activities.

Permit Acceptor(s) have a responsibility for the safety of themselves and of others during the activities and should consult with a fellow Permit Acceptor(s) and/or Authorised Person(s) as the need arises.

Permit Sign Off

Prior to signing off the Permit, the Permit Acceptor(s) will remove personal isolation equipment, where appropriate, as well as tools and materials and report the job status to the Authorised Person who has overall responsibility for the activity. They must also confirm that they have left the site in a safe and tidy condition.

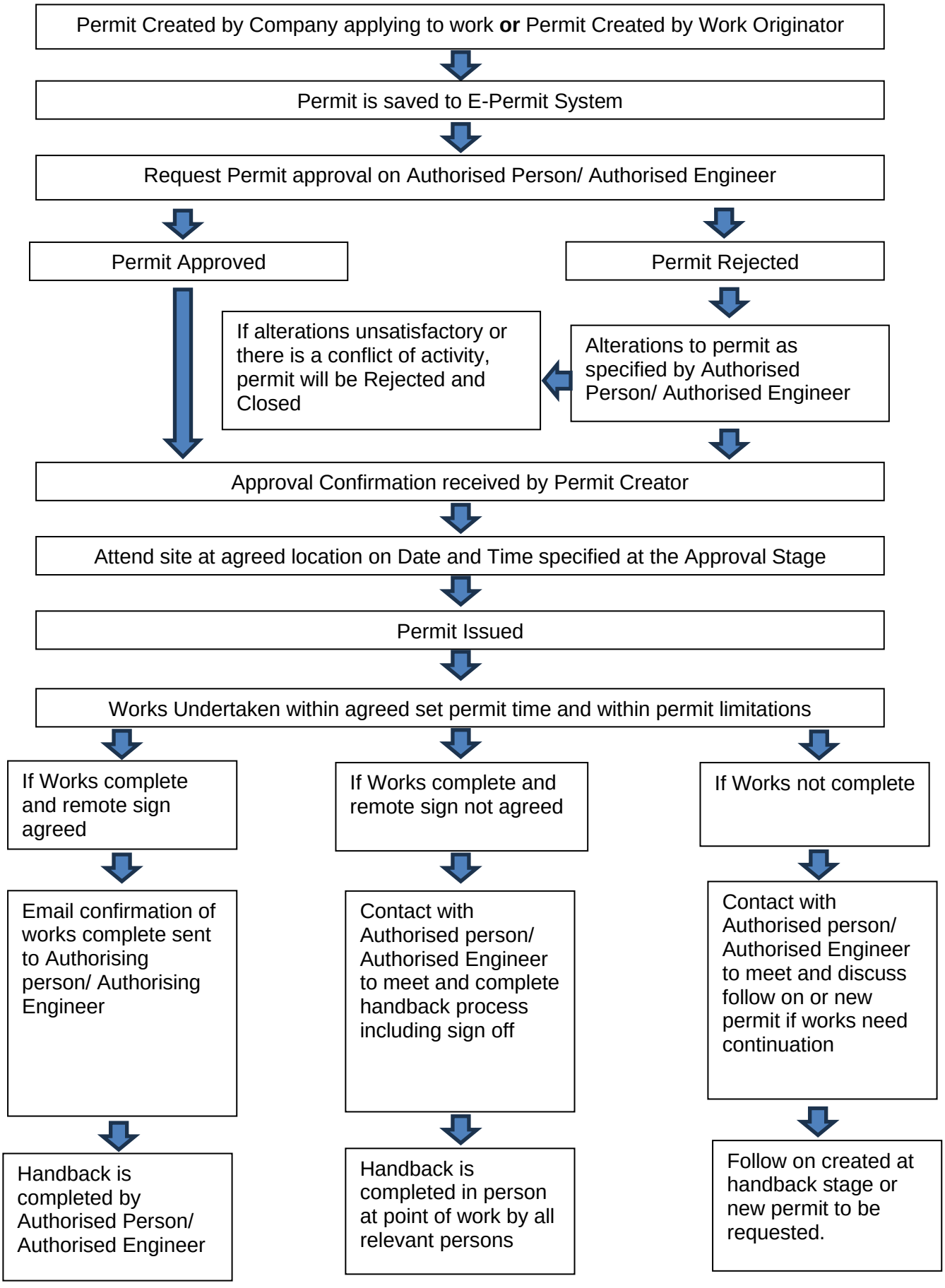
Where the permit is logged via the Pisys E-Permit system the UoE Client, at the point of the issuance of the permit, will advise whether the permit can be remotely signed off without the need to meet with the Client upon completion. For Confined space, Hot Works Outside of Workshop, Tree Felling, Radiation, Demolition and Structural Works and Ownership of Area permits, remote signing is **strictly prohibited**. When the permit is remotely signed off, the responsible person is confirming that the area can be returned to service with the works completed and that the recipients have checked that all guarding and safety devices have been reinstated. All recipients and tools have also been removed from the place of work at the time of signing.

Permit Cancellation

The Permit will be cancelled by the Authorised Person in the event of one of the following:-

- On completion of the activity
- If for any reason the activity cannot be completed within the time quoted on the permit
- If the time quoted on the permit has elapsed
- If an emergency situation has developed and the work has had to stop as a consequence.

E-Permit Process



Identification of Activities

This section provides a Safety Check List for the following areas of work.

- Excavation
- Roof Work
- Work On Live Electricity
- Working on Moving Machinery/Lifts
- Hot Work
- Entry into Plant Room/ Service Riser
- Breaking into Pipelines/ Plant
- Tree Felling
- Fire Alarm/ Fire Protection
- Confined Space Entry
- Under Podia Cable Tray
- Entry into and Work in I.T. Service Locations
- High Pressure Water Jetting
- Asbestos Removal
- Working at Height
- Radiation
- High Risk Lab/ Laser Lab/Biological Sciences Laboratories Entry
- Demolition and Structural works
- Authority to Work

Excavations/ Ground Penetrations

Introduction

Excavation and trenching are amongst the most dangerous operations in the construction industry. Dangers can include cave-ins, falling loads, hazardous atmospheres, and hazards from using heavy equipment.

Underground services may be struck or gas leaks which can cause fire or explosion as a result of damage from excavations or penetration of the ground.

When is a Permit required?

- The requirement for this permit falls into three categories:
- Trenches: Long, narrow and often deep channels used for pipes and cables
- Mass excavation: Found where foundations are being prepared
- Ground Spikes: Due to the risk to buried infrastructure

A permit shall not be required if the excavations or ground penetrations shall be anything less than 300mm deep.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements

- Ground Spikes: Due to the risk to buried infrastructure, the University of Essex emphasis a preference that alternative means should be used, such as weighted anchors, or above ground plumb lines. These specifically include setting out for construction works and securing temporary structures.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference included to.

- The specific **location of works** to which the permit applies.
- Details of the **person in charge** of the excavation/ ground spike activities, with evidence supplied that they are competent to supervise the task.

- Details of the **names and qualifications of the workers** carrying out the task. This includes evidence of operators of any plant.
- **Up to date site drawings** to identify service runs, i.e. electricity, gas, water.
- Any **major services already identified** on site and that those services will be marked out on site.
- The **use of Cat & Genny Scanner** on site and that any identified services will be marked out on site.
- The **location of hand dug holes** (i.e. in close proximity of buried services).
- The **location of overhead services**.
- Arrangements for **preventing unauthorized collapse** of the excavation.
- The approach to **protecting adjacent structures**.
- The approach to identifying and **protecting tree roots**.
- The approach to mitigating the risk of any **person falling into the excavation**.
- **Restricted zones** around the excavation where plant/ materials and equipment must not be stored. This includes consideration towards live pedestrian and traffic routes.
- Arrangements for the **safe access and egress** to and from the excavation.
- The type of **personal protective equipment** to be used. This includes reference to approved breathing apparatus, to be used in excavations where the atmosphere will not support life.
- How adequate **ventilation will be maintained**. This includes approach to test and assessment to identifying if air in any excavation is poisonous or asphyxiating.
- The **excavation(s) being inspected** each day at the start of shirt and that it is left in a safe condition at the end of shift. Reference should also be made to inspections after any event that may have affected the strength and stability or after any incident such as a fall of earth. Records must be kept for inspection.
- Steps to be taken if any **asbestos containing materials** are uncovered.
- Where there is the potential for **inflow of ground and surface water**.
- Existing **lighting levels** and the requirement for any additional illumination (be it for the purposes of the works and/ or out of hours).
- **Signage to be displayed** and how this will be secured to the site.
- **Any identified services**/ installed services shall be marked on drawings and photos taken as the works proceed.

- **Emergency procedures** in the event that a service is struck.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Inspections and reports CIS 47 (Rev1) (PDF)

https://www.hse.gov.uk/pubns/cis47.pdf

Health and safety in construction HSG 150

https://www.hse.gov.uk/pubns/books/hsg150.htm

Avoiding danger from underground services HSG47

https://www.hse.gov.uk/pubns/books/hsg47.htm

Excavation: What you need to know as a busy builder CIS64 (PDF)

https://www.hse.gov.uk/pubns/cis64.pdf

Roof Work

Introduction

All work on roofs is highly dangerous, even if a job only takes a few minutes. Proper precautions are needed to control the risk. Those carrying out the work must be trained, competent and instructed in use of the precautions required. A 'method statement' is the common way to help manage work on roofs and communicate the precautions to those involved.

When is a Permit required?

Permits are required for access to all roofs at the University of Essex. Red roofs are defined as those without edge protection, to which additional control measures inclusive of a rescue plan will be required to be adhered to.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- The University implements a policy that strictly NO access will be provided to a roof for the purposes of carrying out works, during adverse weather conditions (for example winds in excess of 23mph). If access is required in the event of an emergency situation, the task will be risk assessed and where necessary additional control measures agreed.
- Where no fixed edge protection exists, WAH protocols must be followed (Section 5.15).

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference included to.

- The **specific location of works** that the RAMS and permit are associated with.
- Details provided of the **person in charge** of the works, with evidence supplied that they are competent to supervise the task.
- Details provided of the **names and qualifications of the workers** carrying out the task. This includes evidence of operators of any equipment. Evidence should also be included that those persons are suitably qualified to use any harnesses or other fall arrest equipment.
- Any **lone working** arrangements.

- The **Asbestos Management Survey**. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Steps should also be identified should any asbestos containing materials be uncovered.
- Any **existing information,** to include:
    - Existing drawings
    - Location of and current certificate for lightening protection
    - Current certification for existing guardrails
    - Current certification for latchway system
- Any **major services** already identified on the roof (i.e. electrical cables, steam pipes, refrigeration piping or any other services that may be hazardous).
- The use of a **cable avoidance tool** to identify any potential hidden services.
- Arrangements for **preventing unauthorized access** to the roof area.
- Arrangements to **maintain access to the roof** to other parties who require ongoing access (i.e. University maintenance staff).
- The approach to identifying and cleaning any **hazardous waste**. For example, diseases associated with pigeon droppings include Cryptococcosis, Histoplasmosis and Psittacosis. You can become infected with these diseases by breathing in the dust that is created when cleaning droppings.
- The approach to mitigating the **risk of any person falling** to below, where existing guardrails are not in place (for example if temporarily moved to allow access to the roof via mobile elevating plant or scaffold).
- **Restricted zones** where access should not be made (i.e. the risk from discharge points at roof level for hazardous fumes and exhaust gases).
- Arrangements for the **safe access and egress** to and from the roof, inclusive of movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained.
- The type of **personal protective equipment** to be used.
- The safest way to **remove waste** from the roof (for example a properly attached and enclosed chute).
- Appropriate precautions to prevent danger to other persons by **falling materials** etc (for example exclusion/ drop zones cordoned off below).
- Where there is the potential for inflow of water to which might create **slip hazards**, particularly during winter months.

- Existing **lighting levels** and the requirement for any additional illumination (be it for the purposes of the works and/ or out of hours).
- **Signage** that will be displayed warning any other persons who might require access to the roof of the works being carried out.
- Any **identified services**/ installed services shall be marked on drawings and photos taken as the works proceed.
- A **rescue plan** which does not rely on the emergency services.
- **Emergency procedures** in the event that a service is struck.
- Any **site specific control measures** highlighted by the University of Essex representative of risks present when working on the Biological Sciences building roof. For example, glass drainage exists which must be protected if working within the vicinity of. On occasions, planned work involving the disposal of radioisotopes via the fume cupboard duct may be carried out by the Client.
- **Emergency procedures** in the event of a fire alarm within the building or a fire on the roof (i.e. to include radio communication with the University of Essex Information Centre).
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE – Roof Work

https://www.hse.gov.uk/construction/safetytopics/roofwork.htm

Busy Builder Roof Work

https://www.hse.gov.uk/pubns/cis60.pdf

Health and Safety in Roof Work (HSG33)

https://www.hse.gov.uk/pubns/books/hsg33.htm

Health and safety in construction HSG 150

https://www.hse.gov.uk/pubns/books/hsg150.htm

Fragile Roofs – Safe Working Practices

https://www.hse.gov.uk/pubns/geis5.htm

Work on Live Electricity

Introduction

Electricity can kill or severely injure people and cause damage to property. However, you can take simple precautions when working with or near electricity and electrical equipment to significantly reduce the risk of injury to you, your workers and others around you.

When is a Permit required?

Work undertaken on electrical installation/ infrastructure requires a permit. In all circumstances works should be undertaken with all sources of supply isolated and confirmed dead at point of work. Strictly NO person shall carry out work on live electrical installations and infrastructure, other than for the exception of testing in line with Guidance notes 3 (BS7671) - IET Inspection and Testing. Electrical works covered under this permit type is restricted to the following:

- Any task with means of safe isolation from a local isolator. Secure and final isolations to be agreed by Authorising Engineer (AE) and Senior Authorised Person (SAP) or Authorised Person (AP).

NOTE – Live Testing and Access into Private HV Network (11kv) Areas – Separate Authority System

In the circumstances of live testing (Electricity at work regulations 1999, current edition, reference Regulation 14 Work on or near live conductors), these works shall only proceed if approved by Authorising Engineer (AE) and Senior Authorised Person (SAP) or Authorised Person (AP) for the University of Essex. A separate permit to work system applies in these circumstances.

No work will be carried out on the University's private HV Network (11KV) supply in any of the University transformers and switch rooms located at any of the University campuses by Estate Management employees. Only the contracted Powersure approved company is to maintain this supply.

All works and entry's into 11KV areas is controlled by a University of Essex HV Authority to Work or Sanction to work by an HV Authorising Engineer (AE) and Senior Authorised Person (SAP) or Authorised Person (AP) no other Permits or Authorities will allow access. Any person entering an HV area requires a minimum of HV awareness training course. Any person not trained but requiring access for less than 30 minutes work (i.e. emergency lighting test or inspection of fire alarm detector head), the person must be escorted by the Building Services and Safety Manager (AE HV) and/or Deputy Building Services Manager (SAP HV)., Technical Manager (Electrical) (AP HV)

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Reference should be made to separate documented guidelines inclusive of:
    - — Policy and Safety Rules for Safe Working on Low Voltage Fixed Electrical Systems
    - — Electrical Safety: Low Voltage Systems Roles and Responsibilities Flow Chart
    - — Policy for the Operation and Maintenance of the High Voltage (HV) Network Electrical Distribution Systems

A copy of these documents can be requested for review for any works in these areas.

- No Live Working will be permitted.
- All isolations to be carried out in conjunction with LOTO and the University of Essex policies and procedures.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 3 workings days in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference included to.

- The **specific location of works** that the RAMS and permit are associated with. Strictly no works beyond the location stated and authorized to work in.
- Details of the **person in charge** of the works, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the workers carrying out the task.
- Any **lone working** arrangements.
- All equipment to be **de-energised, isolated and locked** off to the extent feasible is to be identified.
- The **Asbestos Management Survey**. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference should be made to steps to be taken if any asbestos containing materials are uncovered.
- Any **existing information** (such as certificates or drawings).
- Where **ladders or other access equipment** are to be used, they are of a dry ideally non-conductive construction or have a management statement/ safe system of work in use.
- The use of a certified **cable avoidance tool** to identify any potential hidden services.

- Arrangements to **maintain access to the surrounding environment**, for example when working within a plant room or on a corridor used by others (students, staff and visitors).
- Whether any services that will be isolated, will disable any other **live safety systems** (for example fire safety related, emergency lighting etc).
- Arrangements for **the safe access and egress** to and from the location of works, inclusive of movement of materials, equipment and waste.
- The type of **personal protective equipment** to be used, inclusive of properly insulated tools and equipment.
- To any additional precautions to be taken when working, or in the vicinity of, potentially **flammable/ explosive areas** (compressed gas stores, compressor room, service ducts, petroleum, LPG gas stores, paint store, confined spaces etc).
- Existing **lighting levels** and the requirement for any additional illumination (be it for the purposes of the works if local lighting is isolated).
- The **signage** that will be displayed warning any other persons of the works or who might require access to the area being worked within (i.e. plant room).
- Any **identified services/** installed services shall be marked on drawings as the works proceed.
- **Emergency procedures**, inclusive of safety person available, capable of rendering First Aid or obtaining assistance, and who has the knowledge required to isolate any supplies, in an emergency. This includes for a person who is trained in **CPR (cardiopulmonary resuscitation).**
- Emergency procedures in the event of a **fire alarm within the building** and how the area will be made safe.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Electricity at Work HSG85

http://www.hse.gov.uk/pubns/priced/hsg85.pdf

Electrical Safety and You: A brief guide.

https://www.hse.gov.uk/pubns/indg231.htm

Electricity at work: Safe working practices

https://www.hse.gov.uk/pubns/books/hsg85.htm

Electricity at Work Regulations 1989

https://www.hse.gov.uk/pubns/books/hsr25.htm

BS7671 Requirements For Electrical Installations IET Wiring regulations (Latest Edition)

IET On-Site Guide BS7671 (Latest Edition)

All Relevant Electrical Guidance Notes

Working on Moving Machinery/Lifts

Introduction

Passenger lifts and combined goods/ passenger lifts in workplaces, are subject to periodic thorough examination and inspection, as required by LOLER and PUWER. When contractors work in the lift pit or on top of the lift car, there are some obvious and serious risks. It's vital to ensure that whoever maintains it or carries out work, does so safely, due to the risks involved.

When is a Permit required?

This permit is required to be applied for any work involving entry into a lift shaft including work on top of the lift car and work in the lift pit.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Communication between workers must be maintained at all times, especially when one is driving the lift and the other is present on the lift car top.
- If two people work on the lift top simultaneously, they must agree a procedure to stop the lift safely and have it stationary for ANY examination or adjustments to take place.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the workers carrying out the task (i.e. NVQ EOR 202)
- Any **lone working** arrangements.
- **Permission has been sought and agreed** from relevant persons for taking the lift out of service and that notices are to be placed informing lift users that the lift is out of service.

- The contractor/ operatives are satisfied that there are sufficient **fixed safety facilities** for their work, such as car top controls, test limit switches, guarding/ screening, free fall safety gear, refuge spaces.
- The appropriate precautions taken to **prevent falls from height**.
- The presence of oil, grease or other **slippery substances**.
- To arrangements for preventing **unauthorized access** to the lift shaft inclusive of type of barriers to be used to protect open lift entrances.
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered.
- Any **existing information** (such as the lift maintenance manual).
- Arrangements to maintain access to the **surrounding environment**.
- Arrangements for the **safe access and egress** to and from the location of works. This should include:
    - There is a suitable fixed or permanent means of access for accessing the areas.
    - Movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors, particularly where slippery surfaces could be created which pose a risk to others).
- The type of **personal protective equipment** to be used, inclusive of properly insulated tools and equipment.
- Confirm that there will be **adequate lighting** in the shaft and machinery space including emergency lighting.
- **Signage** that will be displayed warning any other persons.
- **Emergency procedures**, inclusive of second person available, capable of rendering First Aid or obtaining assistance.
- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe and evacuated from.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Thorough examination and testing of lifts

https://www.hse.gov.uk/pubns/indg339.htm

Regulation 9 of the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)

https://www.legislation.gov.uk/uksi/1998/2307/regulation/9/made

Electricity at Work HSG85

http://www.hse.gov.uk/pubns/priced/hsg85.pdf

Hot Work (Outside of workshops)

Introduction

Hot work is defined as any activity which uses or generates direct or indirect heat, flames or hot sparks. Hot work during both construction and ongoing maintenance is a major cause of fire. Carrying out hot work activities safely is an important part of fire safety in the workplace, but to do so, hazards and control measures should be identified that will effectively reduce risks and keep workers, other persons and property safe.

When is a Permit required?

This permit is required to be applied for all hot work outside of any workshop, welding bay or similar. Hot work includes welding, grinding, brazing, soldering, hot air paint stripping, flame cutting and the use of blow lamps and bitumen boilers.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- The incumbent fire alarm Engineer, Security and Estates will be informed of the activity and fire alarm covers applied where required.
- Strictly no hot works will be undertaken where this presents an escape risk or confined space risk.
- A minimum of 2 hours fire watch will be undertaken following the activity.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- The **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the workers carrying out the task.

- Any **lone working** arrangements.
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered. Any existing information/ records.
- Ensuring the area of works are clear of **flammable and combustible objects** and where necessary, a form of fire blanket retardant material is used to close of the areas of hot works. Other associated arrangements to prevent fire include damping down, ongoing spraying, blocking holes in floors, walls and ceilings.
- **Neighbouring areas** have been assessed for any risk of fire spread i.e. by conduction along metal pipes, falling sparks, risk to fillings within insulated panels. Barriers and screens are erected to protect other persons present.
- Where required, **smoke detectors have been isolated** and covered as needed, in accordance with University of Essex requirements.
- A **fire watch period** (minimum of 2hrs) following completion of works.
- The **fire extinguishers** to be used and that the user can demonstrate relevant training.
- Arrangements to maintain access to the **surrounding environment**.
- Arrangements for the **safe access and egress** to and from the location of works. This should include movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors, particularly where slippery surfaces could be created which pose a risk to others).
- The type of **personal protective equipment** to be used, inclusive of extraction equipment, fire-resistant garments, face masks, eye protection and other equipment designed to protect people from heat, sparks or hazardous fumes and radiation.
- Confirm that there will be **adequate lighting** available.
- **Adequate ventilation and extraction** shall be available. This should include consideration towards monitoring gas or vapours in the area (i.e. some gases will be toxic, while others will be flammable or combustible. Workers should be able to monitor gas and vapour in the air to ensure that they are working in safe conditions).
- The **signage** that will be displayed warning any other persons.
- **Emergency procedures**, inclusive of second person available, capable of rendering First Aid or obtaining assistance.

- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe and evacuated from.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Permit to work systems

https://www.hse.gov.uk/comah/sragtech/techmeaspermit.htm

Breaking into Pipelines/ Plant

Introduction

Scalds from pipelines/ plant during maintenance/ repair can cause serious burns. Each year approximately 5% of all reportable injuries are caused by burns/ scalds. Good working practices and effective protective clothing will greatly reduce these accidents.

When is a Permit required?

- This permit is required to be applied for if the scope of works is in line with the following definition:
- Breaking into pipelines means the uncoupling and/or blanking of lines containing steam, hot water, hypochlorite, acids, alkalis, caustics and pressurised substances. Also included are hazardous materials in bio-sciences waste pipes that are not in labs but run outside and across corridors / offices. Breaking into plant means any work on equipment containing steam, hot water or compressed gases where:-
- The pipe is 50mm diameter or above; and
- The pressure is 0.5 above atmospheric pressure; or
- The temperature of the media exceeds 111C.
- The pipeline contains acids, alkalis, caustic or hypochlorites

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Refer to items captured within “Contractor risk management and associated safety information”.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- The **person in charge of the works**, with evidence supplied that they are competent to supervise the task.

- **Names and qualifications** of the workers carrying out the task.
- Any **lone working** arrangements.
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered. To any existing information/ records.
- Where required, **smoke detectors have been isolated** and covered as needed, in accordance with University of Essex requirements.
- Arrangements to **maintain access to the surrounding environment**.
- Arrangements for the **safe access and egress** to and from the location of works, particularly where works are carried out within plant rooms and it is likely that there will only be one route in and out of the plant room or riser.
- The type of **personal protective equipment** to be used.
- Confirm that there will be **adequate lighting** is available.
- Adequate **ventilation and extraction** shall be available.
- The **signage** that will be displayed warning any other persons.
- **Emergency procedures**, inclusive of second person available, capable of rendering First Aid or obtaining assistance.
- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe and evacuated from.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Permit to work systems

https://www.hse.gov.uk/comah/sragtech/techmeaspermit.htm

Working in confined spaces

https://www.hse.gov.uk/toolbox/confined.htm

Tree Felling/ Surgery

Introduction

Arboriculture (tree felling/ surgery) activity has within it several inherent risks; working at height, aerial/ rope working, use of chainsaws etc. Due to these high-risk elements any activity concerning “Tree Work” is subject to a Permit to Work.

When is a Permit required?

This permit is required to be applied for if the works are defined as follows:

- The repair of damaged trees, as by the removal of diseased parts, filling of cavities, and prevention of further decay, and by strengthening branches with braces. The pollarding (pruning), lopping off, branches for shaping of superfluous and undesirable branches, twigs and roots.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- An appropriate exclusions zone will be set up and clearly identified/barriered to keep unauthorised people away from the activity.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the workers carrying out the task.
- Any **lone working** arrangements.
- Arrangements to maintain **access to the surrounding environment**.
- Arrangements for maintaining an **exclusion zone** around the area of works, to mitigate the risk posed towards users of local routes used by pedestrians and vehicles.

- The type of **personal protective equipment** to be used (for example safety hat with full force screen, chain saw boots and trousers, safety glasses).
- Confirm that there will be **adequate lighting** is available.
- Any **site rules**, such as no smoking and arrangements for the safe storage of flammable materials.
- The **signage** that will be displayed warning any other persons.
- **Emergency procedures**, inclusive of second person available, capable of rendering First Aid or obtaining assistance.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Tree work health and safety

https://www.hse.gov.uk/treework/index.htm

Working with chainsaws

https://www.hse.gov.uk/treework/areyou/chainsaw-operator.htm

Chainsaw personal protective equipment

https://www.hse.gov.uk/treework/safety-topics/chainppe.htm

Working at height

https://www.hse.gov.uk/treework/safety-topics/height.htm

Fire Alarms and Fire Protection Infrastructure

Introduction

Any contractor carrying out works to which would either isolate, disable or temporarily cover an existing detector are required to adhere to the implementation of the University's fire precautions and procedures.

When is a Permit required?

This permit is required to be applied for if the works are defined to be carried out as follows:

- Disabling an existing fire alarm
- Isolating a detector/ using dust caps to prevent unnecessary fire alarm activations

This permit procedure must also be adhered to where the location is deemed to be part of a Contractors working construction site.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Security and Estates Helpdesk must be informed if any fire alarm equipment is going to be isolated.
- A Fire Watch is to be organised with Estates Maintenance and Security, if any area of Estate will be isolated causing a situation where an alarm may not be heard.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the workers carrying out the task.

- Any **lone working** arrangements.
- To the **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered.
- Any **existing information/ records**, to include:
    - Existing drawings
    - Existing certification
    - Form Fire 2 (5.10) - Permit To Isolate Fire Alarm System Or Devices
- Arrangements for obtaining and **installing a dust cap and removal** of the dust cap at completion of each day.
- Arrangements for **preventing unauthorized access** to the fire alarm panel.
- Arrangements for the **safe access and egress** to and from the location of works, inclusive of movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors).
- The type of **personal protective equipment** to be used, inclusive of properly insulated tools and equipment.
- Any **temporary arrangements** such as notices by call points and main doors which mag-locks do not operate whilst the alarm is isolated.
- The **signage** that will be displayed warning any other persons of the works or who might require access to the area being worked within.
- Any works to be carried out by the **incumbent fire alarm maintenance contractor**.
- Ensuring the alarm is **fully operational at completion of the working shift**.
- **Emergency procedures** in respect of communication with any interested parties whilst the alarm is isolated.
- The provision of a **temporary means of raising the fire alarm** and alerting information Centre.
- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Permit to Work Systems

https://www.hse.gov.uk/comah/sragtech/techmeaspermit.htm

Isolation and Permits to Work

https://www.hse.gov.uk/safemaintenance/permits.htm

Entry into Confined Spaces

Introduction

A confined space is one which is both enclosed, or largely enclosed, and which also has a reasonably foreseeable risk to workers of fire, explosion, loss of consciousness, asphyxiation or drowning. Serious accidents occur while work is being performed inside confined spaces. A significant number of these accidents prove fatal and multiple fatalities are not uncommon. The greatest risks are associated with toxic and/or flammable gases, fumes and vapours. When accidents occur inside confined spaces it is usually due to neglect or ignorance of necessary precautions.

When is a Permit required?

This permit is required to be applied for where entry to the confined space cannot be avoided, i.e. there are no reasonable alternative methods of working available. Confined spaces include plant rooms, service risers, drains, lift shafts/ pits, sewers and access chambers.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Person in charge will be appointed and they will be competent to supervise/undertake the task.
- Rescue plan and rescue set will be a minimum requirement and will be agreed by UofE staff.
- Person in charge will remain outside of the confined space at all times.
- A calibrated gas monitor with alarm will be in use throughout the entire process.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of wor**ks that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task (i.e. confined space entry, confined space traverse, use of breathing apparatus)

- Any person(s) entering the confined space have passed a **confined space medical** within the last twelve months.
- Strictly **NO lone working** will be carried out.
- The **rescue plan** and that the person in an emergency role has a current certificate to show they have appropriate training.
- **Testing the atmosphere** of the confined space prior to entering, to confirm there is sufficient oxygen to support life. Strictly no access where it is identified that the atmosphere testing reveals oxygen levels not capable of supporting life. An atmosphere monitor must be available and operational at all times.
- **Gas detectors have been calibrated** within the last six months.
- How **ventilation shall be maintained**.
- The planned method of work takes into account **hazards in the space** including those due to its former use (i.e. residues).
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered.
- Any **existing information/ records**.
- Any **hazardous services/ plant** located within the area of works.
- The use of a **cable avoidance tool** to identify any potential hidden services, if intrusive works are required.
- To arrangements for preventing **unauthorized access** to the location.
- Arrangements for the **safe access and egress** to and from the confined space, inclusive of movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors).
- The type of **personal protective equipment** to be used. Evidence should also be included that those persons are suitably qualified to use any harnesses or other fall arrest equipment.
- Safest way to **remove waste** from the confined space.
- The type of **equipment to be used** (such as battery operated tools/ non-sparking tools/ ladders that do not generate sparks).
- **First aid arrangements**.

- Existing **lighting levels** and the requirement for any additional illumination.
- The **signage** that will be displayed warning any other persons of the works.
- **Emergency procedures** in the event of a fire alarm within the building.
- **Fire safety arrangements** to include the provision of a suitable fire extinguishers (not CO2), be trained in its use and have means of raising the alarm.
- Any **site rules** inclusive of no naked flames
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE – Working in Confined Spaces

https://www.hse.gov.uk/toolbox/confined.htm

HSE – Confined Spaces Guidance

https://www.hse.gov.uk/confinedspace/index.htm

Under Podia Cable Tray- LV & Data

Introduction

The “Under-Podia” entrance runs beneath the heart of the Colchester campus from east (Valley Road) to wets. Although primarily used for service deliveries and access to the Lakeside Theatre Stage Door, much of the Universities accessible parking is located there, together with parking for bicycles and motorbikes. Mains service pipework and cable trays carrying essential services runs the duration of under podia at high level.

When is a Permit required?

This permit is required to be applied for any works are to be carried out with under podia at high level.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Special care must be taken when manoeuvring scissor lifts or MEWPS under podia, gas pipes and electrical cables to be identified before any works go ahead. Drivers must be IPAF trained and current
  • No climbing onto the cable tray at any time

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task. This includes evidence of operators of any equipment.
- **NO lone working** at any time.
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered.

- Any **existing information/ records** (such as existing drawings)
- Any associated **traffic management arrangements**/ diversion requirements. Reference should be included to arrangements to ensure emergency services can access all routes under podia in the event of an emergency.
- The use of a **cable avoidance tool** to identify any potential hidden services.
- Arrangements for preventing **unauthorized access** to the site area.
- The approach to identifying and cleaning any **hazardous waste**. For example diseases associated with pigeon droppings include Cryptococcosis, Histoplasmosis and Psittacosis. You can become infected with these diseases by breathing in the dust that is created when cleaning droppings.
- The approach to mitigating the risk of any **person falling to below**.
- Arrangements for the **safe access and egress** to the working area, inclusive of movement of materials, equipment and waste. This includes consideration towards circulation routes of other pedestrians, cyclists and vehicles traveling under podia and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors).
- The type of **personal protective equipment** to be used. This should include full body coveralls, safety footwear, safety helmets, gloves Hi-Vis vest and orinasal mask with P3 filters. For any work that produces significant noise, i.e. drilling, EN166 safety goggle and ear defenders to be worn. Evidence of training in the use of RPE (face fit test) must be available.
- Appropriate precautions to prevent danger to other persons by **falling tools and materials** etc (for example exclusion/ drop zones cordoned off below). Persons working on cable tray should use tool belts and ties when over areas of risk.
- Existing **lighting levels** and the requirement for any additional illumination.
- The **signage** that will be displayed warning any other persons of the works.
- A **rescue plan** for any person operating a MEWP.
- **Emergency procedures** in the event that a service is struck.
- Emergency procedures in the event of a **fire alarm** activating at a local building.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Working at height

https://www.hse.gov.uk/treework/safety-topics/height.htm

Entry into and Work in I.T. Services Locations

Introduction

I.T. Data Centre's and I.T. Node Rooms are all restricted access due to the safety and security implications. There could be serious reputational, security and safety implications if IT systems/equipment is compromised.

When is a Permit required?

A permit to access is required when access is required to I.T. Data Centre's and I.T. Node Rooms. A Permit to Work is required for all observational work within I.T. Locations and where contact is required with any I.T. equipment and or systems such as unplugging, replacing, data input etc.

NOTE: The issue of a Permit to Work/ Permit to Access does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- A dynamic risk assessment of potentially unsafe items (such as hot boiler flues) must be carried out prior to work.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task.
- Any **lone working** arrangements.
- The **Asbestos** Management Survey. If any form of intrusive work shall be carried out, then reference must be made to a project specific Asbestos Refurbishment and Demolition Survey. Reference made to steps to be taken if any asbestos containing materials are uncovered.

- Any **existing information/ records**.
- The use of a **cable avoidance tool** to identify any potential hidden services.
- Arrangements for preventing **unauthorized access**.
- Arrangements to maintain access to the **surrounding environment** for any other persons within the room.
- Any **damage/ unexpected events or unexpected hazards** must be reported immediately to an I.T. Services Approved Person.
- Before work commences, it is essential that any **servers/nodes involved are electrically isolated.**
- Any other **hazardous equipment** which might exist within IT locations, such as hot boiler flues and boiler casings that could cause contact burns or other injuries.
- Whether any services that will be isolated, will disable any other **live safety systems** (for example fire safety related, emergency lighting etc).
- Arrangements for the **safe access and egress** to and from the location of works, inclusive of movement of materials, equipment and waste. This includes consideration towards internal circulation routes of buildings used by others (students, staff and visitors) and how those routes will be maintained (i.e. regular housekeeping checks and sweeping floors).
- The type of **personal protective equipment** to be used, inclusive of properly insulated tools and equipment.
- Any particular **manual handling** requirements.
- Existing **lighting levels** and the requirement for any additional illumination.
- The **signage** that will be displayed warning any other persons of the works and informing of hazards caused due to the nature of any work taking place within the server/ node room.
- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

High Pressure Water Jetting

Introduction

The term High Pressure Water Jetting covers all water jetting processes, including those using additives, abrasives or chemicals where there is an energy input to increase the pressure applied to water. Manual High Pressure Jetting, if not handled competently is a potentially hazardous process due to the power of the jet and the proximity of the operator to the jetting equipment.

When is a Permit required?

This permit to work is to be applied to high pressure water jetting activities associated with the:

- Graffiti Removal
- Building Exterior Cleaning
- Grounds/Car Park Cleaning
- Drain/Sewer Cleaning
- Stone Cleaning

This permit to work is not appropriate for the cleaning of cooling towers or asbestos roofs as additional checks will be required for such work.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Exclusion zone will be maintained for unauthorised people.
- Correct PPE will be used and water jets will be kept under control and will be prevented from coming into contact with anyone’s skin/face.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task and training in the equipment to be used. Electrical equipment must be 110v CTE or lower.
- **Any other permits** and RAMS required for the scope of works (for example where works are carried out using rope access systems).
- The **Asbestos** Management/ R&D Survey. Reference should also be made to steps to be taken if any asbestos containing materials are uncovered.
- Arrangements for **preventing unauthorized access** to surrounding areas.
- Arrangements to maintain **access to the surrounding environment**.
- Arrangements for the **safe access and egress** to and from areas above the location of works.
- Confirm there are suitable arrangements for the **disposal of fluids** arising from the operation.
- Clearly identifying the method of work which considers the **full range of hazards** to which workers may be exposed, including those relating to fuel/power and contact with the jet.
- Identifying appropriate measures to **protect persons** not involved in the work including, as applicable, children, students, staff, visitors and any other person (i.e. consider risk of trailing hoses/ leads, risk of spray-back, need for exclusion zone). Where required, footpaths are closed off and appropriate barriers and signage displayed and if necessary, the area supervised.
- The type of **personal protective equipment** to be used (minimum should be goggles to EN166A, waterproof coveralls, gloves, hard hat, hearing protection, safety footwear. For jetting in excess of 100 bar both goggles and a face shield are recommended.)
- Communication has been provided on periods of **high level of noise and the impact on neighbouring activities** has been considered.
- Any particular **manual handling** requirements.
- Confirm the **water to be used is of a potable quality**.
- Existing **lighting levels** and the requirement for any additional illumination.
- The **signage** that will be displayed warning any other persons of the works and informing of hazards caused such as slip hazards.
- **First aid arrangements** to include the risk of skin-penetrating injuries from the jet (ideally workers should hold a copy of the Water Jetting Association medical card).

- Emergency procedures in the event of a **fire alarm** within the building and how the area will be made safe.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

Water Jetting Association – Code of Practice

https://www.waterjetting.org.uk/health-and-safety/

Hand arm vibration at work

https://www.hse.gov.uk/pubns/indg175.htm

Asbestos Removal

Introduction

During the course of any maintenance or construction work, a contractor carrying out work may encounter a situation where asbestos removal may be required. This guide provides information on the role and process of applying for an Asbestos Removal Permit. The system is designed to prevent the occurrence of incidents or injury to contractors, staff and students; and prevent damage to the University Estate.

When is a Permit required?

This permit to work is to be applied for in any instance where asbestos removal will be required.

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- A copy of the Contractors' Method Statement or written Plan of Work (stating how and where the work has been carried out) and relevant certification inclusive of air test/ certificate of reoccupation must be provided to Estates Management duty holder, to be kept on record after the work has been completed.
- All works shall be undertaken in accordance with the requirements of the CAR 2012 and any other relevant regulations, Approved Codes of Practice and Guidance Notes issued by the Health and Safety Executive, and any revision to them, whilst statutory notice to the Health and Safety Executive, as may be required prior to the commencement of any asbestos related works.
- Any works associated with the removal of asbestos containing materials shall be carried out in accordance with:
    - Managing and working with asbestos HSE Asbestos Removal
    - Licensable work with asbestos Licensable Work

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works must submit a suitable Method Statement/ Written Plan for Work, as a minimum, 72hrs in advance of the works.

In brief, the plan must include:

- The nature and probable duration of the work.

- The location of where the work is to be carried out.
- The methods of handling asbestos or asbestos materials.
- Details of the protection and decontamination equipment utilised by the contractor's employees.
- The methods and controls for the protection of staff and others near to the work site.
- The segregation and signage that will be utilised for the work area.
- Asbestos waste disposal.
- Issue of an asbestos air test/ certificate of reoccupation

Where the work is licensable, the four stage clearance process shall apply which involves:

- Preliminary check of site condition
- A thorough visual inspection of the enclosure/ work area
- Air monitoring for residual asbestos fibres
- Final assessment after removal of the asbestos in the enclosure/ work area

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE Asbestos Safety

https://www.hse.gov.uk/asbestos/

Working at Height

Introduction

Working at height is considered by the HSE to be one of the high risk activities. It's defined as work in any place where, if there were no precautions in place, a person could fall a distance liable to cause personal injury.

Work at height should only be carried out where it is deemed as the only reasonably practicable way of completing the work.

When is a Permit required?

This permit to work is to be applied to any work at height which includes:

- Scaffolding and Tower Scaffolds
- Rope Access System (inclusive of roof work)
- Access to under podia cable tray and associated infrastructure

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Abseilers will set up their own tested safe system of work and not rely on university eyebolts.
- Tools will be tethered or prevented from falling by other means (e.g. kick boards/tethers).
- All fall restraint/ fall arrest equipment will be inspected by more than one competent person before use.
- The 'buddy' system will be used for climbers/roof workers to check each other's safety system as a failsafe.
- If any doubt about the activity exists, do not carry out the activity.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task and training in the equipment to be used. There should be evidence available that workers are suitably qualified to erect/ use access equipment or fall arrest equipment involved, i.e. IPAF, PASMA, Competent Scaffolder card.
- **Any other permits** and RAMS required for the scope of works (for example roof access and high pressure water jetting).
- The **Asbestos** Management/ R&D Survey. Reference should also be made to steps to be taken if any asbestos containing materials are uncovered.
- Arrangements for **preventing unauthorized access** to surrounding areas.
- Arrangements to maintain **access to the surrounding environment**.
- Arrangements for the **safe access and egress** to and from areas above the location of works.
- Identifying appropriate measures to **protect persons** not involved in the work. Where required, footpaths are closed off and appropriate barriers and signage displayed and if necessary, the area supervised.
- The method of work which specifies the weather conditions which would be unsafe to work in.
- Confirm the ground conditions are suitable for access equipment to be used.
- Where the use of mobile elevating work platforms are required, there is a current **certificate of inspection** and test under the Lifting Operations and Lifting Equipment Regulations.
- Confirm that in the case of scaffolding and scaffold towers, there will be a **record of inspection** by a competent person prior to use AND that there will be arrangements in place to **re-inspect scaffolds** every seven days and at other times following adverse events.
- The type of **personal protective equipment** to be used (and where necessary, evidence of training in that type of PPE).
- The **signage** that will be displayed warning any other persons of the works.
- Emergency procedures inclusive of a **rescue plan** in place for injured workers.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE Work at Height

https://www.hse.gov.uk/work-at-height/

Radiation

Introduction

Significant uncontrolled doses of ionising radiation can cause tissue harm, cancer or reproductive effects. The University has a limited number of radioactive sources which are used for experimental purposes.

When is a Permit required?

The Ionising Radiation Regulations and Environmental Permitting Regulations places strict controls over how the University manages and disposes of radioactive substances or items which may be contaminated with radioactivity.

Where ionising radiation sources are located, all rooms, containers or equipment in which radioactive substances are used or stored, or areas that may potentially be contaminated will be clearly marked with a Trefoil in a yellow triangle (see picture) along with the wording “Radioactive.”

Sources of ionising radiation are present in the following locations:

- Room 3.02: Authorised laboratory for radiation work and storage of sources of ionising radiation
- Room 3.30: Authorised store for accumulation of radioactive waste.
- Biological Sciences store is also authorised for temporary storage of radioactive substances awaiting collection.

The following may also be contaminated with radioactivity and so are labelled with the trefoil as an extra warning to maintenance staff:

- Duct 9
- Plumbing pipework and connecting drains associated with room 3.02
- Plumbing under sinks located in 4.13/4.15 and their connecting drains (as a precaution as the laboratory was used for radiation work in the past).

The following rooms have equipment that contains radioactive sources:

- 3.02 Perkin Elmer TriCarb 2910 counter
- 3.07 GLC Uni Cam 610 Series

- 3.07C GLC Shimadzu

NOTE: If permanent decommissioning or significant modification of the above rooms and areas are planned (for example, for conversion of laboratory to an office) it is vitally important that the UIRPO and DIRPS are informed well in advance of the work. Failure to manage the risk of contamination at the time of decommissioning/modifying areas used for radiation work, might result in costly decontamination surveys and remediation in the future.

The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- No work will be conducted without the engagement of the Lab Management.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task and training in the equipment to be used.
- The type of **personal protective equipment** to be used (and where necessary, evidence of training in that type of PPE).
- The **signage** that will be displayed warning any other persons of the works.
- Emergency procedures inclusive of a **rescue plan** in place for injured workers.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).
- Other associated primary considerations include:
    - Approval of the Departmental Ionising Radiation Protection Supervisor (DIRPS)* must have been sought before maintenance work is carried out in the above locations or on the listed potentially contaminated ducts and pipework.

— The DIRPS must have arranged for the areas/duct/pipework to be monitored for contamination to ensure that no radiation hazard exists. Permit must not be issued until this is confirmed.

— Check whether there are any areas of significant risk. If there is the DIRPS must have arranged for them to be clearly identified with appropriate signs (i.e. the trefoil).

— Where the work involves the duct/pipework identified above, check on the integrity of duct/pipework must also be made, as the presence of corrosion may increase the risk of contamination. Advise the DIRPS if corrosion found.

— Maintenance workers entering the area must be given clear instructions, in writing of any area they should not enter, equipment which may not be moved and any work which is not permitted. The DIRPS will assist with this. The agreed precautions must be specified on the permit.

— Before removal of any materials / plant from the above areas, it will necessary for the DIRPS to arrange for it to be monitored for contamination. If contamination is found decontamination or disposal as radioactive waste will be necessary. The DIRPS will advise on this.

— The DIRPS must ensure that records of monitoring and decontamination are kept.

- The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

High Risk Lab/Laser Lab/ Biological Sciences Laboratories Entry

Introduction

Additional precautions are needed in these areas because of risk arising from:

- Biohazards: substances that can cause infection (areas of risk shown by the sign below left)
- Hazardous and dangerous chemicals, including compressed gasses
- Specialist equipment (pressure vessels etc)

When is a Permit required?

Permit issuers must understand the risks associated with Biosciences laboratories. They must have attended the “Working in Biological Sciences” training and be familiar with the current version of the General Risk Assessment for School of Biological Sciences.

The Technical Services Manager (TSM) (extn 3314) or Deputy Technical Services Manager (DTSM) (extn, 3315) must give final confirmation that it is safe to proceed with the work.

Medical Microbiology laboratory 3SW4.09

Containment level 2+ and so has more stringent requirements than other laboratories. Additional requirements are given below.

Virology suite 3SW.5.16

This area has additional entry restrictions, but following the permit requirements and local rules (given below) will be sufficient.

Radiation laboratories / stores etc.

For area where there are radiation hazards also refer to section 5.2

The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- No work will be conducted without the engagement of the Lab Management.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications of the workers** carrying out the task and training in the equipment to be used.
- The type of **personal protective equipment** to be used (and where necessary, evidence of training in that type of PPE).
- The **signage** that will be displayed warning any other persons of the works.
- Emergency procedures inclusive of a **rescue plan** in place for injured workers.
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).
- **Other associated primary considerations include:**
    - The Technical Services Manager (TSM) (extn 3314) or Deputy Technical Services Manager (DTSM) (extn, 3315) must give final confirmation that it is safe to proceed with the work.
    - Regular contractors must have had “Working in Biological Sciences” training.
    - If has not been possible to arrange training, work should be supervised by a competent laboratory technician.
    - Contractors must have received a current copy of the General Risk Assessment for School of Biological Sciences.
    - Laboratory work can only be allowed to continue if either the laboratory work or maintenance work will not put others at risk. (Take account of the laboratory worker needing to move around the laboratory, access water and emergency facilities).
    - The area must have been cleared of glassware or hazardous material and, where necessary decontaminated before work starts. This must be done by Biological Sciences staff.

- Contractors must wear disposable coveralls (boiler suit or lab coat style depending on nature of work). If frequent access is required Biological Sciences can issue a laundered lab coat on loan.
- The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

- The Contractor should also confirm that they understand following local rules:
  - Personal items such as mobile phones must not be used in the laboratory, as there is the potential to spread contamination
  - Cuts covered with waterproof plasters (available if necessary)
  - No eating and drinking
  - If there is a splashing risk (i.e. plumbing work or certain laboratory work) wear glasses
  - Wear disposable nitrile gloves (unless a different type of glove is specified as more suitable for risk arising from the contractors work), which should be disposed of before leaving the laboratory.
  - Washing hands before leaving laboratory (even if gloves have been worn). Also during the work as necessary.
  - Laboratory and fire doors must never be left wedged open and unattended. (Wedge briefly to assist with moving equipment only).
  - Grey contaminated waste boxes must not be touched
  - Ask Biological Sciences staff to move laboratory equipment
  - Procedure for sharps (i.e. needles)
  - If it is believed contamination with biological cultures has occurred coveralls and gloves must be autoclaved. Check that contractor understands the procedure for this.
- Additional requirements for Medical Microbiology laboratory 3SW4.09:
- A laboratory technician should normally be present, unless TSM/DTSM has agreed not necessary.
- Additional local rules to check that the contractor understands:
  - Disposable coveralls and gloves must be left in the room after use
  - Tools must not be placed on the benches

- Tools must be disinfected afterwards (wipe over with Virkon solution)

- Refer to section 5.2 if there is a need to access/ work on an area/equipment where there is a radioactivity hazard (shown by above warning sign, top right image)

Demolition and Structural Works

Introduction

Demolition and structural works are considered by the HSE to be one of the high-risk activities. Any contractor carrying out demolition projects, structural alterations or dismantling of existing structures must plan out carefully and action the activity in a way that prevents danger and by those with the relevant skills, knowledge and experience while adhering to all UoE policies and procedures. Demolition introduces a risk to the building structure, and this must be assessed by a competent person before any work commences.

When is a Permit required?

The permit is required to be applied for if the works are defined to be carried out as follows:

- Any demolition of existing structures
- Any structural alterations made to existing structures including changes to load bearing.
- Any dismantling of existing structures excluding any small wooden structures such as sheds

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- Any dismantling within a structure cannot take place unless a Structural Engineer or and equally competent person has formally agreed, in writing, to the work prior to any work commencing.
- Any building demolition can only be carried out by a Demolition Specialist company.
- Any demolition area must be cordoned off to prevent unauthorised access.
- Any works that involves applying a significant change to structural or stress loading to a built asset should be agreed by a structural engineer of an equally competent person.

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works, (AND any other Contractor responsible for those works) must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and permit are associated with.
- Details of the **person in charge of the works**, with evidence supplied that they are competent to supervise the task.
- **Names and qualifications** of the structural engineer if one has been engaged as part of the project.
- **Any other permits** and RAMS required for the scope of works (for example roof access)
- Whether the project forms part of **CDM 2015** (Ownership of area) regulations and legislation
- Identifying appropriate measures to **protect persons** not involved in the work. Where required, footpaths are closed off and appropriate barriers and signage displayed and if necessary, the area supervised.
- Arrangements for **preventing unauthorized access** to surrounding areas by anyone not involved with the work.
- The method of work which specifies the **weather conditions** which would be unsafe to work in where applicable.
- The type of **personal protective equipment** to be used (and where necessary, evidence of training in that type of PPE).
- Appropriate precautions to prevent danger to other persons by **falling tools and materials** etc (for example exclusion/ drop zones cordoned off below).
- Controls in place for the occurrence of **hazardous materials** including dust, asbestos and respirable crystalline silica (RCS)
- The **Asbestos** Management/ R&D Survey. Reference should also be made to steps to be taken if any asbestos containing materials are uncovered.

- Measures put into place to control the **potential for fire** from risks such as hot work using any tools that generate spark, flame or heat

- The fire plan, including the **escape route** and fire points. Additionally the way of raising the alarm must be detailed where the fire alarm is impacted.

- Details regarding the reduction or control of **noise and vibration hazards** causing potential damage to hearing and HAVS (hand-arm vibration syndrome)

- Emergency procedures inclusive of a **rescue plan** in place for injured workers.

- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE Demolition website

Construction - Demolition - HSE

HSE Asbestos Safety

Asbestos - HSE

HSG150 Health and Safety in construction

Avoiding concealed services and overhead power lines CIS65

Construction (Design and Management) Regulations 2015 (CDM 2015)

Authority to Work

Introduction

If works are considered to be low risk to a medium risk, an Authority to Work can be issued instead of a Permit to work. Authority to Works are similarly applied for through the Pisys E-Permit portal. All Authority to Works are subject to the submission and subsequent approval of relevant risk assessments and method statements relevant to the task to be undertaken. All operatives that attend site and work under an Authority to Work must ensure that they have completed the Contractor Health and Safety induction within the last 12 months.

When is an Authority to Work required?

An Authority to Work is required to be applied for all works undertaken that are considered to be low to medium risk. Please note that the below list is not exhaustive but serves as a guideline and gives examples of activities that can be considered low to medium risk works for which an Authority to Work would need to be issued:

- Painting/ Decorative works
- Levelling of Paving Slabs
- Electrical work under 50V
- Work on unplugged electrical appliances or equipment
- Consultant surveys excluding HV and other controlled areas
- Works on Fire Doors including remedial works and replacement
- Install of signage
- Fire stopping, existing issues and newly discovered, when not in an area that requires an entry permit (such as a plant room or riser)
- Working at Height, tower scaffold, ladder, stepladder up to 2m platform

NOTE: The issue of an Authority to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- All contractors are to confirm, at the point of applying for an Authority to Work, that they have completed an Induction within the last 12 Months and if not have made the necessary arrangements with the Estates Management Helpdesk to complete before work commences. For works being undertaken at the Southend Campus or Loughton Campus, the UoE client will confirm and make the arrangements for an induction.

- All operatives will sign in upon arrival at the Colchester campus at either the Estates Management Helpdesk, between 8:00am- 16:30pm, or the Security and Information Desk, out of hours. Upon completion and sign off of the Authority to Work, all contractors are to sign out to confirm they have left site using the time frames above.

- Where the works involve Fire Doors, either remedial or replacement, agreement must be made with the UoE client/ Project Manager and those deemed competent or responsible within the UoE to manage/ supervise the task such as the Fire Safety Manager or Director of Estates.

Contractor risk management and associated safety information

For an Authority to work to be issued, the Contractor carrying out those works, must submit suitable Risk Assessments and Method Statements, as a minimum, 72hrs in advance of the works. The submitted information should be specific to the scope of works and environment being worked within, with reference made to:

- The **specific location of works** that the RAMS and Authority to work are associated with.

- Evidence supplied that the operatives undertaking the work are **suitably skilled and resourced** to safely undertake the required works

- Confirmation that any **electrical appliance or equipment** that is worked on under the Authority is unplugged with no live component.

- **Contact details** of the attending engineer/ operative in case of emergency

- There will be no roof access unless there is **complete edge protection**
- Any low-level work at height will be **appropriate inspected access equipment**

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risk assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

University of Essex Contractor Health and Safety Webpage

https://www.essex.ac.uk/staff/health-and-safety-support/contractor-health-and-safety

Natural and Liquid Petroleum Gas

Introduction

Working near/on Natural and Liquid Petroleum gas is defined as a high risk activity by the HSE. Working on Natural and Liquid Petroleum is strictly managed by the UoE Technical Manager Mechanical, Building Services and Safety Manager and delegated Authorised Persons. All working involving Natural and Liquid Petroleum should only be undertaken by those who are Gas Safe Approved and should be competent to the task. A competent person should have the necessary training, skills, experience and knowledge to do the work safely.

When is a Permit required?

- Any works involving Natural and Liquid Petroleum Gas
- Excavations within 1 metre of a Gas Installation or Gas Pipe
- General gas maintenance working from pre-approved and signed off risk and method statements including catering and laundry equipment

NOTE: The issue of a Permit to Work does NOT ensure total safety. Its aim is to identify a danger that cannot be seen and give instructions that must be observed.

Client Restrictions and Requirements:

- When working on Low Pressure Natural Gas- downstream of the plant room ECV only the Technical Manager Mechanical and Building Services & Safety Manager may approve and issue the permit.
- When working on medium pressure natural gas - downstream of the plant room ECV only the Technical Manager Mechanical and Building Services & Safety Manager may approve and issue the permit.
- When working on General gas maintenance working from pre-approved and signed off risk and method statements including catering and laundry equipment (approved by the universities responsible person or their nominated person) only the Technical Manager Mechanical, Building Services & Safety Manager, Building Services & Safety Manager Compliance & Assets, Mechanical Supervisor and Mechanical Chargehand may approve and issue the permit.
- When working on an Excavation within 1 Metre of a Gas Installation or Gas Pipe only the Technical Manager Mechanical and Building Services & Safety Manager may approve and issue the permit

- When entering a Gas Meter Station only the following Authorised Persons can approve the work Technical Manager Mechanical, Building Services & Safety Manager, Deputy Building Services Manager, Mechanical Supervisor, Mechanical Chargehand and Project Manager (Sustainability) may approve and issue the permit

Contractor risk management and associated safety information

For a permit to be issued, the Contractor carrying out those works must submit a suitable Method Statement/ Written Plan for Work, as a minimum, 72hrs in advance of the works.

In brief, the plan must include

- The **specific location of works** that the RAMS and permit are associated with.
- Details provided of the **person in charge** of the works, with evidence supplied that they are competent to supervise the task.
- Where excavation is required, Details must be provided of the **person in charge** of the excavation/ ground spike activities, with evidence supplied that they are competent to supervise the task
- **Emergency telephone numbers** (i.e. Client parties/ utilities/ emergency contact numbers).
- **Names and qualifications of the workers** carrying out the task and training in the equipment to be used.
- The type of **personal protective equipment** to be used (and where necessary, evidence of training in that type of PPE).
- **Any other permits** and RAMS required for the scope of works (for example where works include Excavations).
- The **signage** that will be displayed warning any other persons of the works.
- To arrangements for preventing **unauthorized access** to the location.
- Any **lone working** arrangements.

The above points capture some of the key risks for consideration, but is not an exhaustive list of all potential risks and control measures. Each task should be risks assessed individually to ensure control measures that are documented are specific to the proposed works to be carried out.

Further Guidance:

HSE Gas Safety
Gas safety for employers - HSE

The Gas Safety (Installation and Use) Regulations 1998

UoE E-Permit Panels

Fire Compartmentation

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the work will breach or involve breaching the current fire compartmentation. If the works are confirmed to not breach the fire compartmentation, the contractor is then required to acknowledge that if at any point it becomes apparent that the job will involve a fire compartmentation breach then this must be discussed with Estates, a Fire Compartmentation form is completed, and the UoE mandated procedure is followed.

If the works that form part of the Permit to work or Authority to Work are confirmed to breach or involve the breaching of fire compartmentation then the contractor will have to confirm and accept the following statements:

- It is not practical to avoid breaching fire compartmentation with the works being undertaken
- There will be no breaches caused other than as described on the Permit to Work or Authority to Work
- Trained and competent persons are undertaking/ supervising the sealing of the breach made
- Materials used will be pre-approved or provided by the University of Essex
- If for any reason the time taken to re-seal the breach is longer than the life of the Permit to Work or Authority to Work the person issuing the permit will be notified and further measures will be agreed.
- Any fire safety concerns or safety incidents will be immediately reported to the Estates Management Section.
- If for any reason the breach seal is not adequate, it will be immediately reported to the Estates Management
- All work will be carried out in accordance with the Fire stopping technical instruction within the permit to work manual
- Any third-party certification or photos required are provided at the end of job.

Failure to undertake any of the above points will classify the job as incomplete and payment of the job invoice could be affected as a result. Further Details need to be provided of the breach, including a detailed description of breach locations, how will the breach occur and approximate size/s, method of sealing or state competent company providing service and job number.

If uncertain on the required standards the contractor shall make contact with their UoE Client or the relevant project manager to confirm standards and specifications.

Local Isolations

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the equipment being worked on needs to be isolated locally in order to be worked on. Where a local isolation is required, confirmation of the organisation of the appropriate LOTO (Lockout/Tagout) procedure and the usage of approved GS38 test equipment to confirm dead at point of work. Confirmation will also need to be given if it is a complex isolation i.e more than one source of supply (example being Generator or PV Array).

Upstream Isolations

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the job being actioned requires an electrical isolation that will affect other areas and/ or other areas. Where the work being undertaken will affect other areas, the contractor will need to confirm that they have discussed this and organised the isolation with the UoE Electrical team within the Estates Management Section via the UoE client/ Project manager.

Fire Detection

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the job being actioned will affect fire detection in the area. Where the job does affect fire detection, specific details will need to be made to the measures that are in place to avoid affecting fire detection and example being covers being used where dust could potentially cause issue. Further elaboration will be required when submitting the accompanying Risk Assessments and Method Statements.

For Permits that affect Fire Detection, it is necessary to complete additional form/s, Form Fire 1 and Fire Form 2, to be included as part of the permit. Fire Form 1 gives notice of work on Fire Alarms which has the potential to cause false alarms. The Form must be signed in the presence of a member of the Security team who will retain the form until clearance and collection by the Signatory. The following information is also required:

- Exact location of the area/s affected
- Date of the work
- Expected time period of work
- Sign off once work is completed

Fire Form 2 must be used for isolations or disconnections of fire safety infrastructure systems. For routine maintenance, Fire Form 1 must be used. Fire Form 2 will include confirmation of the following information:

- Reason for Isolation
- Extent of Isolation
- Name of attending engineer
- Time and date of Isolation
- Time and date of reinstatement
- Fire Safety Manager and/or Assistant Fire Officer approval of additional precautions taken in mitigation of the affected fire detection
- Confirmation of Informing Security Information Desk
- Additional equipment installed and date of commissioning of the additional equipment

Further information in relation to Fire Precautions and Prevention can be found in the Contractor Code of Practice found on the University of Essex Contractor Health and Safety website.

Gas Installations

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the job will involve working on or around gas installations. Where the work are in close proximity or on gas installations, confirmation of contact and agreement with the UoE Mechanical team through the UoE Client/ Project manager. Without prior consent, no work can take place. All works related to gas installations and appliances shall be in accordance with the relevant Gas Safety (Installation and USE) Regulations. All works must be executed by competent, certified persons. Each person must be registered with Gas Safe for the specific work being executed. Gas Installation Certification must be handed over to the UoE before practical completion complying with the following:

- The address of the premises
- A brief description of the new installation and/ or work carried out to an existing installation

- Any special recommendations or instructions for the safe use and operation of gas appliances and flues
- The contractors name and address
- A statement that the installation complies with the Gas Safety (Installation and Use) Regulations
- The name and signature of the Gas Safe registered individual responsible for checking compliance
- The date on which the installation was checked

Lone Working

Every Permit to Work and Authority to Work that is approved and issued via the E-Permit system, the contractor must confirm whether the job will involve Lone working. Lone workers are defined as those who work by themselves without close or direct supervision. Where lone working is present, details must be provided of the measures put into place by the contractor to maintain regular communication. Examples of measures that could be put into place are below. Please note that the list is not exhaustive but means to provide a guideline of some measures that could be included.

- Hourly telephone calls with Head office
- Safety Software/App that requires timed inputs from onsite operative
- Regular radio communications between on site operatives
- Wearable technology such as panic alarms

Certain high-risk works require **at least** one other person and must not be actioned by lone workers. This includes works such as when working in a confined space the person in charge of the works will remain outside of the confined space at all times. Where lone working takes place, a lone working risk assessment should form part of the RA/MS associated with the permit.