

## **ESTATES OPERATIONS**

HEALTH & SAFETY DOCUMENT - CODE OF PRACTICE
DOCUMENT TITLE - PERMITS TO WORK
ISSUE DATE & VERSION - FEBRUARY 2018 v1.5

Please Note – the guidance provided in this Code of Practice pertains only to the Estates Group and its operations. For Imperial College Health & Safety policies and Codes of Practice go to: <a href="http://www.imperial.ac.uk/safety">http://www.imperial.ac.uk/safety</a>.

#### INTRODUCTION

Estates Operations (EO) is the Division within the College which has delegated responsibility for the overall maintenance and upkeep of all buildings, plant and infrastructure that make up Imperial College London. This responsibility includes all services provided to building(s) e.g. utilities, stored hot and cold water, heating and cooling, distribution of high pressure steam and ventilation systems. Estates Operations is also responsible for the upkeep of roads, pathways and landscaped areas.

Maintenance can easily be divided into two distinct categories e.g. planned preventative maintenance (PPM) and reactive maintenance which is a response to a failure of a piece of equipment, plant or service. On average there are 70,000 planned and reactive maintenance activities performed across the College per annum.

In order to fulfil its delegated responsibilities to the College, Estates Operations engages a range of professionally qualified staff comprising:

- > A Team of electrical and mechanical engineers who are employees of the College, these engineers report through the Head of Maintenance;
- A Term Maintenance Contractor who has directly employed engineering staff but also utilises a body of specialist sub-contractors; and
- A number of specialist 'Approved' contractors who are available to undertake one-off pieces of work or maintenance activities.

## 1. Duty of Care

Under the Health & Safety at Work Act 1974 and the Management of Health & Safety at Work Regulations 1999 the College has a duty of care to its staff, students, visitors, contractors and any other person who could be adversely affected by the College's undertakings. For the purpose of this Code of Practice (CoP) the operation of the maintenance service as described above is a part of the College's undertakings.

In this capacity, as commissioner of a range of services, Estates Operations management has a delegated duty to ensure the health and safety of contractors coming on to an Imperial College campuses and, all staff and students who could be harmed by the operations of the contractors appointed by them.

## 2. Aims and scope of this Document

The aim of this document is to define the arrangements Estates Operations management has in place to fulfil its delegated duties and comply with the duty of care as defined by the Regulations as at 1, above.

The document and arrangements apply to all routine and non-routine maintenance activities performed by contractors at Imperial College.

## 3. Controlling Access to Hazardous or Sensitive Areas

In 2008 the College implemented a code of practice designed to strengthen existing measures for securing sensitive or hazardous areas of the College such as research areas, laboratories, plant rooms, roofs, service tunnels and other high risk locations. This access control system comprises of a coding system which defines each sensitive area as high, medium or low risk and uses a red,

highly restricted

access

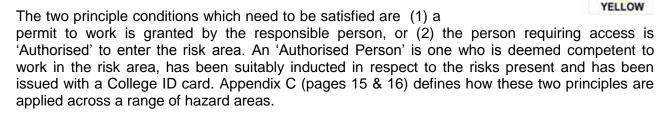
RED

AMBER

amber or yellow door sticker respectively to communicate the

degree of risk.

The code of practice, along with specific guidance can be found at: <a href="http://www.imperial.ac.uk/safety/safety-by-topic/access-control-and-permits/">http://www.imperial.ac.uk/safety/safety-by-topic/access-control-and-permits/</a>. The guidance sets out the specific conditions which are to be satisfied where staff or contractors need to access restricted areas to carry out routine works or attend to an emergency.



## 4. Permits to Work

Permits to work are a commonly used method for assessing and managing the implications (risk) associated with the conduct of a work activity, defining any measures which may need to be applied to eliminate or minimise the risk and granting permission for works to be carried out. More specifically the purpose of a permit to work is to:

- Specify precisely the work area (including such items of plant and equipment as appropriate) to which it applies;
- Fully describe the work to be done;
- Provide a clear record that all foreseeable hazards (including those introduced by the proposed work) have been identified and considered;
- Specify the safety precautions which must be put in place before work commences and adhered to throughout the course of the work;
- Identify who is to do the work;
- Signal the transfer of control of relevant areas, activities, plant and equipment from the initiating department to the receiving contractor;
- Clearly state the period of time over which it is valid.

## 4.1 When is a Permit to Work Required

As stated at 1.above, the College has a duty to ensure the health and safety of contractors coming on to an Imperial College campus and, all staff and students who could be harmed by the operations of the contractors appointed by them.

This duty requires Estates Operations management to conduct a risk analysis to determine what work activities are 'hazardous' and therefore likely to require the issue of a permit to work. Estates Operations have selected the following three categories of risk as requiring a permit to work:

- Business Risk work on any plant or services such as air handling units, cooling plant, steam services, water, power or fire systems which could result in business interruption;
- Personal Risk work on any plant or services e.g. working at height, exposure to emissions, live working, noise, extremes of temperature, moving and handling or any hazard that could have a harmful effect on an individuals health;
- Intrinsic Risk work taking place in environments e.g. confined space, unprotected roof, CL3/CBS Laboratory, radiation area etc. that are by their nature injurious.

College staff and contractors are required to apply the above criteria in order to determine whether a permit to work will be required to enable the task to be undertaken in accordance with an agreed risk assessment and method statement.

## 5.0 Estates Operations Permit to Work System

The Estates Operations permit to work system has to be flexible and serve two functions, the first is a system which satisfies the list of points at 4 and the second is a work scheduling tool. It is to be used, as appropriate, for both Planned Preventative Maintenance (PPM) activities and, so far as is reasonably practicable, Reactive Maintenance (RM) activities.

The procedure below and depicted in Appendix A (page 13) is that which applies substantially to core working hours of 08.00 to 17.00 Monday to Friday. During evenings, weekends and public holidays the Shift Engineers will follow a protocol as described at **5.6** and shown in Appendix B (page 14).

The permit system has been designed to run on an email platform which increases its' versatility and makes it possible for permits to be requested in advance (at least 5 days) of the day the work is to take place. In the majority of cases the permit to work will have to be collected from the Authoriser on the day the work is to take place, at the discretion of the Authoriser it may be possible to collect the permit the day before.

Requests for permits can be submitted by completion of an on-line form available on the Estates Operations Customer Services Centre's permit to work webpage.

A contractor requiring a permit to work is required to insert the information asked for on the permit request form. Every request must be accompanied by a risk assessment and detailed method statement applicable to the task to be undertaken. (See 6.2 for further detail.)

On completion (by clicking the 'Submit' button) the permit request will be forwarded to the Estates Operations Customer Services Centre, and you will receive a message notifying you that your request has been received. The CSC will redirect the request to the person(s) whose responsibility it will be to authorise the work activity and grant the permit to work e.g. Building Manager, Maintenance Manager, Chief Fire Officer or Faculty Officer.

The principle will apply that Building Managers will authorise permits pertaining to the fabric and general operations of a building whilst Maintenance Managers will authorise permits for works on plant and services. The Fire Officer will be responsible for approving 'hot works'.

The CSC will generate a unique permit to work number and email a copy of the permit application back to the contractor submitting the request. In the event the contractor needs to submit a risk assessment / method statement he should go to 'Reply All' and attach the RA/MS.

#### 5.1 Duties of Permit Initiator / Receiver

The initiator of a permit is required to provide:

- Their name and contact details;
- Details of where the work is to take place and a description;
- The proposed date of the work and its' duration;
- An up-to-date and relevant risk assessment and method statement pertaining to the work to be undertaken, (see 6.2);
- Details of any hazard that may be introduced into the College environment as a result of undertaking the task;
- Details of any 'safety critical plant' that may be affected by the defined work;
- Confirmation that all contractor staff to be involved in the task have been appropriately inducted and possess a College ID badge or visitor pass;

Following receipt of a permit the contractor will:

- Note and give regard to any hazards identified at (1) on the permit;
- Work in accordance with any College policies & procedures noted at (2) and any specific instructions / conditions stated on the permit at (3);
- Carry out the work according to the risk assessment / method statement provided;
- Carry the permit with him whilst on Campus;
- Leave the work area in a tidy and safe condition;
- Report to the permit authoriser upon partial or full completion of the work.

## 5.2 Duties of Estates Operations Permit Authoriser(s)

The permit authoriser is required to:

- Note and consider the information provided by the contractor on the permit request;
- Assess the suitability of the risk assessment and method statement submitted and, consider the potential effects of any hazard introduced by the work activity as stated on the permit request;
- Use box 1 and 2 to note down any College policies which the contractor will need to comply with or specific hazards known to exist in the work area;
- Note any conditions which apply to the granting of the permit at 3.
- Assess whether there is a requirement to carry out any electrical / mechanical isolations and insert the name of the College employee who will facilitate them, see Box 4;
- Ascertain whether the contractor will need access to a Faculty area for which a Laboratory permit will be required,

## 5.3 Declining a permit request

In the event that it is not possible / practicable to grant the permit e.g. the risk assessment is not suitable or the date / timing is inconvenient comment should be inserted at Box 6 and the request returned to the contractor for amendment.

## 5.4 Permit to Work - Planned Maintenance

Many thousands of planned maintenance activities are undertaken across the Imperial College estate on an annual basis. The majority of these are performed by external contractors, either appointed by the Measured Term Contractor or working directly to Estates Operations, who will require access to areas designated as 'restricted' (Red, Amber or Yellow) under the College's Access Control System (see section 3).

Any Contractor requiring access to an area, under the control of a Faculty, designated as 'restricted' by the Access Control System will require a Laboratories Permit to Work appropriately authorised by a Faculty Manager. If the task falls in one of the three categories as at 4.1 an Estates Operations Permit to work will also be required.

Contractors who have been appointed to undertake planned maintenance must use the system as described at **5.0** in order to schedule the work activity and request a permit to work.

Having received a permit request the Imperial College Authoriser must determine whether a permit can be issued in advance of the requested work date or whether the Contractor will be required to collect the permit on the day of the work. The following protocols are a framework which the permit Authoriser will apply to determine how and when a permit will be provided:

## (i) EO controlled & managed location - relatively low risk activity

Provided the task to be undertaken does not fit within the categories as at 4.1 a permit is unlikely to be required. The contractor must liaise with the relevant Building / Maintenance Manager and agree the arrangements for carrying out the work and submit a risk assessment / method statement as required.

## (ii) EO controlled & managed location – medium to high risk activity as at 4.1

Where the work activity is considered medium to high risk and falls within the categories set out at 4.1 a permit to work will be required, it is unlikely however that a permit will be granted in advance as the prevailing circumstances on the day could well impact upon the safe system of work proposed for the task. The contractor will be required to collect the permit on the day of the works from the Authoriser.

## (iii) Faculty controlled area / location - relatively low risk activity

Where the contractor will need to access a laboratory/research area for instance to carry out Legionella inspections/tests it will be necessary to programme the work in liaison with the appropriate Building/Maintenance Manager. He or she will in turn seek approval for the work to go ahead from a Faculty Manager. The Faculty Manager will decide whether it is necessary to complete a 'Laboratories & Associated Areas' permit on the day of the work activity and provide this to the contractor.

# (iv) Faculty controlled area/location - medium to high risk activity as at 4.1

Where the contractor will need to access a laboratory / research area or the work will have an adverse effect on Faculty operations e.g. shutting down ventilation / extraction systems, it will be necessary to seek approval for the work to go ahead from the EO Building / Maintenance

Manager. The EO permit authoriser will liaise with the appropriate Faculty Manager to make arrangements for the work to go ahead.

The Faculty Manager will decide whether it is necessary to provide a 'Laboratories & Associated Areas' permit on the day of the work activity and provide this to the contractor.

Please note the guidance at 5.4 is a framework within which to operate the permit to work system, there may well be situations where College staff find it necessary to adapt this procedure to suit the specific circumstances.

## 5.5 Permit to Work – Reactive Maintenance / Defects

Reactive maintenance across the College is driven from the Estates Operations Customer Services Centre which utilises a system called 'Concept' to log and monitor the programming of works. Each reported defect is allocated a priority rating ranging from 2 hours for a high priority defect up to 7 days for a low priority defect.

The nature of the Defect and its physical location will determine who initially responds to effect a repair or resolution. The response could be from the College in-house Maintenance Service, the Measured Term Contractor or a specialist contractor e.g. lift engineers.

Regardless of whether it is a high priority or low priority task H&S Regulations and Imperial College policy require the same principles to be applied prior to a task being undertaken e.g.

- All hazards associated with the conduct of the task are identified and evaluated;
- Control measures are identified which either eliminate or minimise the risk to an acceptable level;
- A safe system of work is devised;
- The findings of the risk assessment are shared with all those who are required to agree to the task being undertaken or who will be involved;
- That appropriate arrangements are put in place to manage the task.

As with planned maintenance activities, contractors who will respond to Defect reports or carry out reactive maintenance are required, so far as is practicable, to use the permit to work procedure as set out at **5.0** above. The duties as set out at **5.1** will apply to the contractor initiating the permit request and the permit approval process will follow the protocol as set out at **5.4**.

The contractor who is to carry out the reactive maintenance or attend to a Defect must first apply the criteria at **4.1** to determine whether a permit to work could be required. Where the task to be undertaken fits within the criteria the contractor must contact the appropriate Maintenance Manager or Building Manager to clarify whether a permit will be required.

In the event that a permit is considered necessary the Maintenance / Building Manager can produce a permit providing a suitable risk assessment / method statement is submitted by the contractor. To do this the appropriate Manager can log-on to the permit request form and complete the form by inserting the contractor's name and task details. The Manager should insert their own email address in the box as depicted below. Upon submission of the permit request the Manager will instantly receive a copy of the request in their 'Inbox' thus allowing them to complete the approval element of the permit and issue it to the contractor.

Email request to: (Internal use only)	

The College accepts that it may not always be possible to follow the defined procedure due to the constraints of time and the availability of key personnel whose role it is to authorise the permit, this is most likely to occur where an urgent response is required to a reported Defect.

This however does not exempt the contractor in liaison with a Maintenance Manager, Building Manager, Chief Fire Officer or Shift Engineer from giving due consideration to the risk involved in the task and determining a safe method for undertaking the task.

In these circumstances contractors must undertake a 1 minute risk assessment prior to proceeding with the task. Where the attending contractor is an employee of the Measured Term Contractor (MTC) a 1 minute risk assessment will be undertaken and the results/findings recorded on the rear of the Defect ticket. Where a sub-contractor has been called out to attend to a Defect he will conduct a risk assessment prior to commencing the task and record the results / findings on a company risk assessment pro-forma which must be attached to the invoice submitted to the MTC.

## 5.6 Permits to Work – Out of Hours Operations

Out of hours operations are defined as 17.00 hours to 08.00 hours Monday to Friday, Saturdays, Sundays and Bank Holidays. During these times a Shift Engineer system operates which will receive, register and where necessary respond to 'Defects' reported through the Estates Operations Customer Services Centre.

According to the nature of the Defect reported and its' location the Shift Engineers will either:

a) At **South Kensington** respond in person to an emergency situation – where a Shift Engineer responds in person they MUST not proceed until they have carried out a 1 Minute risk assessment to determine whether the operation they are about to undertake will expose them to significant risk. Where a significant risk is identified the Shift Engineer must use his/her knowledge and experience to mitigate the risk by application of specific control measures e.g. to use appropriate Personal Protective Equipment. The findings of the 1 minute risk assessment are to be recorded on the rear of the Defect ticket.

Where it is considered necessary to bring in a Contractor, the Shift Engineer will be responsible for ensuring the Contractor carries out a 1 minute risk assessment, observes good health and safety practice and works in accordance with Imperial College policy and procedures. The findings of the risk assessment must be recorded on a company risk assessment pro-forma. In these circumstances the Shift Engineer should consider whether it is practicable to provide the Contractor with a permit to work using the method described at 5.5 above.

b) At **Medical Campuses and Residences** the Shift Engineer will contact a Call-Out Engineer who will attend and investigate the nature of the defect. The Call Out Engineer will make a judgement as to whether (s)he can effect a repair and contain the emergency or whether a Contractor will be required to respond to the emergency.

Where the Call-Out Engineer deems it appropriate to make an intervention (s)he must carry out a 1 minute risk assessment as in a) above and take action to mitigate any significant risks. The findings of the 1 minute risk assessment are to be recorded on the rear of the Defect ticket.

Where it is considered necessary to bring in a Contractor the Call-Out Engineer will be responsible for ensuring the Contractor undertakes a 1 minute risk assessment, observes good health and safety practice and works in accordance with Imperial College policy and

procedures. In these circumstances the Call-Out Engineer should consider whether it is practicable to provide the Contractor with a permit to work using the method described at 5.5 above.

Where it is not considered practicable the Call-Out Engineer must give sufficient consideration to the risk the Contractor could encounter in carrying out the task and any corresponding risk to the College or its staff / students. Any significant risks should be identified, control measures determined and the results recorded on the rear of the Defect ticket. The results of the risk assessment are to be shared with the Contractor.

c) Register the defect on the system to be dealt with during core hours.

# 5.7 Permits to Work - Legal Status

There is no health and safety regulation which specifies that a permit to work system must be utilised to manage, in this case, the work of contractors. A permit to work system does however satisfy certain duties as expressed in the Health & Safety at Work Act 1974, the Management of Health & Safety at Work Regulations 1999 and Regulatory Reform (Fire Safety) Order 2005 which all require employers to carry out a suitable and sufficient risk assessment of the activities that are a part of the employers undertaking. The permit to work system, as described in this Code of Practice, has been developed as a management tool to enable Imperial College to satisfy its duties under the regulations above and therefore the permit to work becomes 'discoverable' in a court of law.

## 6.0 Permits to Work - Measured Term Contractor

Imperial College's Estates Operations appoints a Measured Term Contractor (MTC) as its agent through whom the services of a range of contractors are commissioned. The MTC employs its own staff to provide the essential interface between Imperial College and the numerous contractors who substantially undertake planned maintenance activities, provide some specialist services and reactive maintenance.

Estates Operations, via its contractual relationship, relies upon the MTC to appoint competent and professional contractors who will demonstrate good health & safety practice whilst carrying out their role at College. It will be the responsibility of the MTC to ensure that all staff and contractors understand and work in compliance with the Estates Operations' Permit to Work system.

The MTC will originate requests for permits to work on behalf of all staff it engages to provide services to Imperial College. As such the permit will be granted to the MTC who will be responsible for ensuring that their staff operate in accordance with any requirements stipulated on the permit and the risk assessment/method statement approved by the permit authoriser.

The MTC will also be responsible for sharing with the Contractor any hazard information provided by the College and supervising the work being carried out by a member of their staff.

#### 6.1 Duties of MTC

The Measured Term Contractor has the following duties:

- To submit requests for permits to work in accordance with the criteria at 4.1;
- To have a system in place which ensures that the College permit system is fully implemented within the operations of the MTC;
- To ensure that all staff are competent to undertake the tasks assigned to them;
- To ensure all staff are appropriately inducted and clear as to the conduct expected of them whilst on campus;
- To ensure all staff are provided with suitable ID which will enable them to perform their functional role at College.
- To ensue at all times that staff wear safety shoes, and high visibility jacket or vest with the company name displayed;
- To ensure all staff are fully briefed and familiar with this Code of Practice;
- To ensure suitable and sufficient risk assessments and method statements are provided for the work their staff will undertake:
- To make available to all staff any risk assessments of hazardous areas provided by Imperial College;
- To monitor safety practice and challenge any inappropriate conduct or behaviour.

For the purpose of this Code of Practice where the word staff is used above it refers to both MTC employees and contractors appointed by the MTC.

#### 6.2 Risk Assessments & Method Statements

A proprietary requirement of the permit to work system is the provision by the Contractor of a risk assessment/method statement (RA/MS) pertinent to the task to be undertaken. Imperial College does not prescribe a particular format for a risk assessment / method statement but to be suitable and sufficient it should include the following:

- A unique identifier/title that connects it to the task for which a permit to work is being requested;
- A description of plant or equipment which is to be worked on;
- The location of the task;
- Details of any hazardous materials being used;
- The significant hazards arising from the task or the process;
- The control measures which will be applied to minimise the risk to an acceptable level;
- A quantification of any residual risk;
- When the risk assessment was last reviewed.

Many of the planned maintenance activities and to a lesser degree reactive maintenance activities will repeat annually if not more frequently. The task / process will be substantively the same and as such a bespoke risk assessment and associated method statement can be produced for the activity and be assigned a unique identifier.

All RA/MS produced that are to be submitted in support of a request for a permit to work will need to be scrutinised by Imperial College Estates Operations management. All approved RA/MS should then be loaded on to a 'shared drive' which will be accessible by permit authorisers within Estates Operations.

The MTC will be responsible for producing a 'library' of RA/MS which relate to the schedule of planned and reactive maintenance activities and, regularly reviewing them to ensure they remain suitable and sufficient.

Where a non-MTC contractor wishes to submit a permit request it will be necessary to forward an appropriate risk assessment / method statement to the permit authoriser(s). This can easily be achieved by following the steps below:

- Complete the permit request form and hit the 'Submit' button;
- You will receive a notification that your request has been received;
- When you receive a copy of your permit request from the EO Customer Service Centre go to Reply All and attach the RA/MS document, these will then be received by the permit authoriser.

## 6.3 Dynamic risk Assessment

Dynamic risk assessment is a term used to describe a conscious act of continually reviewing and assessing the environment and prevailing circumstances in which a task is being or is to be undertaken. The result of this ongoing evaluation is a judgement as to whether it is 'safe' to continue, this judgement must take into account the working environment, the task and the skills, experience and, knowledge of the individual(s) undertaking the task.

All Contractors undertaking planned or reactive maintenance activities at Imperial College are expected to apply the principle of dynamic risk assessment in conjunction with the risk assessment / method statement submitted when the permit to work was authorised. The purpose as stated above is to ensure that it is safe to proceed with the task.

The dynamic risk assessment or 1 minute risk assessment as referred to earlier must be undertaken prior to commencing the task. The Contractor completing the assessment should consult the RA/MS to identify whether there are any hazards associated with the task that are not sufficiently addressed by the control measures specified in the method statement. Where hazards exist that are not identified in the RA/MS or are not sufficiently minimised by application of the control measures in the method statement the Contractor must not *proceed*. In this circumstance the Contractor must risk assess the hazard and determine whether the risk can be eliminated or minimised sufficiently to enable the task to be undertaken safely.

The results or findings of the 1 minute risk assessment are to be recorded on the reverse of the PPM or Defect ticket.

## 6.4 Permits to Work - Roof, Plant Room, Service Riser and Service Tunnel Access

Estates Operations is responsible for the management of roof areas, plant rooms, service risers and service tunnels all of which are designated 'Amber' under the College Access Control System as at section 3 in this document. This means that, in principle, these areas are only accessible via a permit to work unless the persons requiring access are Authorised.

The definition of Authorised is 'any person who is competent, has been fully inducted, has a named College ID badge and has been given access rights to the area by Estates Operations. In practice this means that Estates Operations Maintenance and Buildings Operations staff, once suitably inducted and deemed competent, will have general access to these areas.

Other staff members of Imperial College will be granted Authorised access status according to the definition above and their identified need to access these risk areas, this would include specified Imperial College ICT staff who often have services present in these locations. It should be noted that access to service tunnels is governed by a specific code of practice.

Authorised access will also be granted to certain staff of the Measured Term Contractor who require access to carry out their functional role at College, this role includes escorting contractors to these locations to undertake surveys and inspections.

The general rule applying in College is that No Contractor (other than the MTC) will be provided with a personal College ID badge and therefore will not have general access to these hazardous areas.

In respect of these hazardous areas Estates Operations has carried out a risk profiling exercise and identified specific locations that may need to be accessed and tasks undertaken that will only be facilitated via a permit to work. The criteria at 4.1 will be applied to determine where and when a permit to work will be required. The product of the risk profiling exercise is a plan / drawing of the specific location which identifies the location and nature of the hazards present, these drawings will be made available to permit Authorisers and all contractors having a legitimate need to access these areas.

## 6.5 Permits to Work - Hot Works (Small Works)

Contractors who need to carry out hot works e.g. cutting, grinding, brazing, welding or using such equipment as tar boilers will need to request a permit to work as at **5.0** above.

Where a request is being submitted to carry out 'hot works' the 'Yes' radio button on the request pro-forma (see illustration below) is to be activated and detail of the works and associated hazards inserted in the *Hazards/risks* box.



A suitable risk assessment / method statement must be attached or the unique RA/MS identifier inserted in the box provided.

Having entered the necessary details on the permit request hit the Submit button, the request will go via the Estates Operations Customer Services Centre to the Fire Office who will consider whether permission can be granted for the work to go ahead. The Fire Office will then forward the request to the appropriate Building/Maintenance Manager who will sign off that it is acceptable for the work to be undertaken on the date / time requested.

Any Contractor carrying out hot works is to note and work in compliance with the College's Fire Safety Code of Practice for Project Works and Contractors (October 2010)

## 6.6 Permits to Work - Sign Off

All permits to work issued by Estates Operations must be closed / signed off. Permit closure will require the permit to be returned to the Authoriser and confirmation given that the work is complete and that the work area has been left secure and safe.

Each permit issued will have a start and finish time assigned and it is the duty of the contractor to whom the permit is granted to ensure the work is completed and the permit returned to the Authoriser for 'sign-off'.

In the event where a contractor perceives that the task will not be completed within the allotted permit time he should contact the Authoriser to advise that the task may not be completed. The permit Authoriser will decide whether the permit finish time can be extended or whether the work will have to be rescheduled.

Where an extension to a permit is granted and this carries the work into 'out of hours' working the Authoriser will agree with the contractor how the permit will be 'closed', this will either be via phone contact with the Authoriser or by arrangement with the Shift Engineer.

Where it is necessary to provide feedback to the Authoriser in respect of the work further to 'sign-off' this can be actioned via email.

## 6.7 Permits to Work - Lone Working

Lone working is positively discouraged at Imperial College where hazardous work activities are taking place in remote locations such as plant rooms, service risers and on roofs. Lone working is **not** permitted in service tunnels.

Where it is necessary for a contractor to work alone in a plant room, in a service riser or on a roof it will be his/his employers responsibility to put suitable arrangements in place to ensure his safety whilst lone working, this might include operating a buddy system or using a 'man down' alarm system. Any arrangements implemented must be included within the Risk Assessment / Method Statement.

#### 6.8 Permits to Work - Administration and Records

The permit to work system described in this Code of Practice has been designed and implemented in order to support the Estates Operations Directorate in its duty of care to contractors, College employees, students and visitors. It is a tool which enables 'responsible persons' to identify, evaluate and put measures in place to eliminate or minimise risk.

A completed permit to work may therefore assist the College to demonstrate that it has, so far as reasonably practicable, satisfied its duty of care to all those who could be injured due to the conduct of its operations.

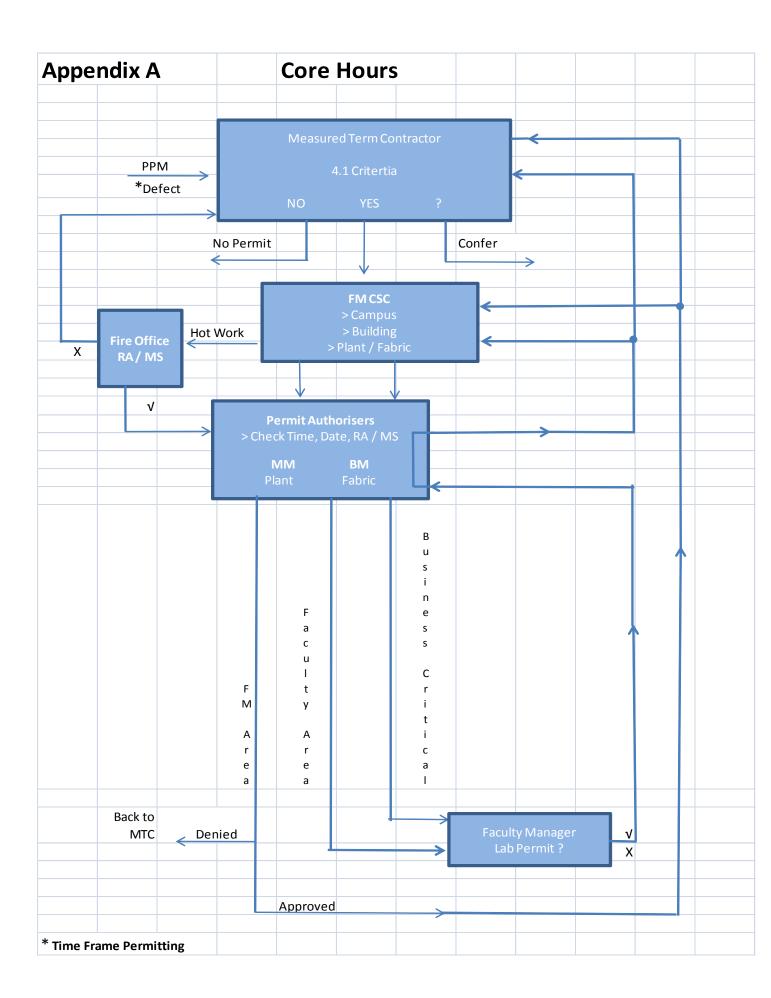
The Estates Operations Customer Services Centre will therefore retain a record of each permit to work issued and archive it by campus building.

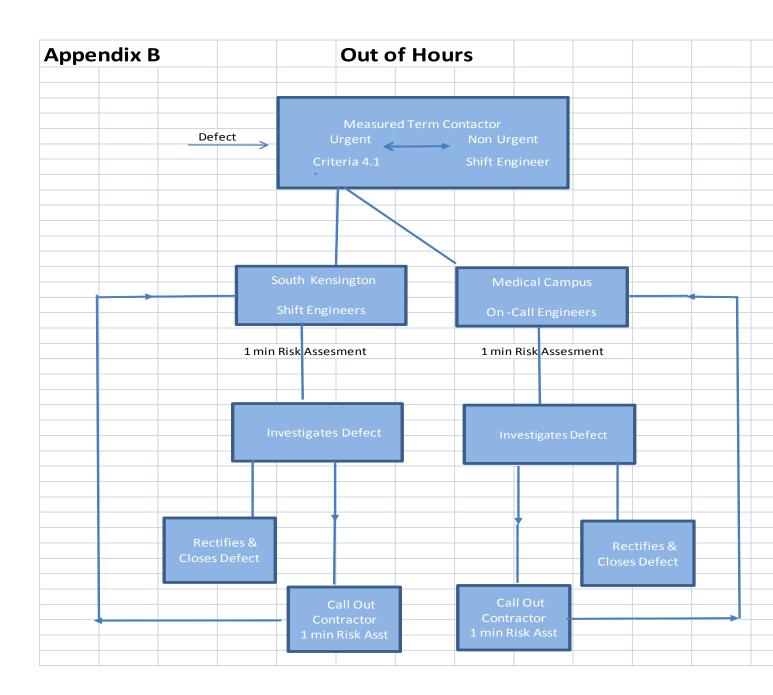
## 6.9 Permits to Work - Training

All staff and contractors required to operate the Estates Operations permit to work system will receive suitable and sufficient training to ensure the system delivers the objectives as at **4** above.

# 6.10 Permits to Work - Monitoring and review

The operation of the permit to work system will be periodically reviewed to ensure it continues to operate in accordance with its service objectives at **4** above. The Measured Term Contractor will be invited and enabled to share their views and experiences





# Appendix C

# **Estates Operations' Permit to Work System - Access Control**

Status	RED	AMBER	YELLOW	NO COLOUR CODE	
Locations Staff & Contractors	CL3 Labs, CBS Holding Rooms, Radiation Rooms, Expensive/Sensitive Equipment	CL3 Suites/ Corridors, CBS Corridors/ Offices/ Laser Labs.	CL2 Labs & other labs	All non-coded areas	Access to: Plant Rooms, Roofs, Risers and Service Tunnels
Cleaning Staff	Access to these areas is by special arrangement only	Access to these areas is by special arrangement only	Do not enter unless instructed by supervisor	No restrictions. Access for cleaning as agreed with Building Manager	No access
Resource Managers / Supervisors	Access to these areas is by special arrangement only	Access to these areas is by special arrangement only	Access to these areas is by special arrangement only	No restrictions	No access
College Security	No access unless accompanied by authorised responsible person	Access only in emergencies and in compliance with lab protocol	Access only in emergencies and in compliance with lab protocol	No restrictions	Access in emergencies in accordance with agreed protocols and for security patrols
EO Maintenance Managers, Supervisors & Engineers	No access unless accompanied by Lab manager or person responsible for the area	Emergency access by specifically trained and Authorised maintenance staff and via Lab permit to work in core hours. EO permit to work may also be required	Emergency access by specifically trained and Authorised maintenance staff and via Lab permit to work in core hours. EO permit to work may also be required	No restrictions.  Maintenance staff to apply safe system of work at all times	Access for Authorised EO personnel
Spie Matthew Hall Managers/ Supervisors	No access unless accompanied by Lab manager or person responsible for the area	Escorted/ Supervised by Lab manager or Authorised person	Escorted/ Supervised by Authorised person	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	Access for Authorised personnel

	RED	AMBER	YELLOW	NO COLOUR CODE	
	NLD	AIVIDLIX	ILLLOW		
Spie Matthew Hall Engineers	Escorted/ Supervised by Laboratory Manager + Lab permit to work	Access to CL3/ CBS/ Labs etc via Lab Permit to Work. EO permit to work may also be required	Access to CL2 and other Labs via Lab Permit to Work. EO permit to work may also be required	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	Access for Authorised personnel and in compliance with EO permit to work system
Spie Matthew Hall Direct Contractors	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	No routine access. Access where approved by SMH or via EO permit to work
EO Direct Contractors	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager and Lab permit to work. EO permit to work may also be required	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	No routine access. Access where approved by EO or via EO permit to work
ICT Staff	Escorted/ Supervised by Lab manager and Lab permit to work	Escorted/ Supervised by Lab manager and Lab permit to work	Escorted/ Supervised by Lab manager and Lab permit to work	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	Access to Authorised ICT staff and in compliance with EO access protocols
ICT Contractors	Escorted/ Supervised by Lab manager + Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager + Lab permit to work. EO permit to work may also be required	Escorted/ Supervised by Lab manager + Lab permit to work. EO permit to work may also be required	No restrictions. All contractors to work in accordance with safe systems of work & Permit to Work where required	Contractors to be supervised by ICT staff or via EO permit to work