



Permits-to-Work:

Procedure for the permits-to-work system

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Procedure for the permit-to-work system

On property managed by the University there are a small number of work activities (identified below) which will be managed by a permit-to-work system, **and are the only activities for which permits-to-work can be used.**

Permits-to-work form an essential part of safe systems of work for these work activities (usually maintenance based). They allow work to start only after safe procedures have been defined and they provide a clear record that all foreseeable hazards have been controlled. Permits-to-work do not, in themselves, make a work activity free from risk; they rely upon effective use of controls and coordination of activities in order that hazards are identified and risks are suitably and sufficiently assessed.

What do we mean by permits-to-work?

A Permit-to-work is a written record that authorises specific work, at a specific location on property managed by the University, for a specific period of time; it is an agreement between the Permit Issuer and the Permit Receiver, which documents the conditions, preparations, precautions and limitations before work can start.

The permit-to-work protocol COVERS the work activities listed below under Step 1. However the permit-to-work protocol does NOT cover:

- **Asbestos** (as this is covered in a particularly rigid and specific Standard. Please see the protocol on Management of asbestos-containing materials at www.leeds.ac.uk/safety for more information.).
- **Work on Medical gas pipeline systems** – 'medical gas pipeline system' is a generic term to describe systems for piped medical gases, vacuum and waste anaesthetic gas systems for patients. This requires a permit-to-work but is covered by Department of Health Guidance (Health Technical Memorandum 02-01:Medical gas pipeline systems) contact Leeds NHS trust Estates Department via the main switchboard (0113 243 3144) for details of the procedure.
- **Certain types of work in a confined space** – this is work in any place (including chambers, tanks, vats, silos, pits, trenches, pipes, sewers, flues, wells or other similar space) which, because of its enclosed nature, brings a reasonably foreseeable chance of harm from the following 'specified risks': serious injury arising from a fire or explosion; loss of consciousness because of an increase in body temperature or asphyxiation from gas, fume, vapour or lack of oxygen; drowning because of an increase in the level of a liquid; or asphyxiation by a free-flowing solid (e.g. sand, grain or earth) or being unable to reach a breathable environment due to being trapped by the free-flowing solid. If you are doing this type of work then speak to your Health and Safety Manager.
- **Access to higher risk areas** (e.g. roofs, plant rooms or laboratories) which is dealt with in a separate protocol currently being written. In the meantime speak to your Health and Safety Manager or Estates Helpdesk (x35555) if you need help.
- There are also **exclusions for similar kinds of faculty-managed teaching or research activity** (see the definitions below) as these are managed locally through the risk assessment processes

If you have any questions about what is or is not included please speak to your Health and Safety Manager.

Step-by-step Procedure to manage permits-to-work

As the vast majority of activities needing a permit-to-work are carried out by FD Estates, they will manage the process; this means that only people approved by FD Estates can issue a permit-to-work. If you are using a contractor, they must be on a University-approved contractor register; speak to your Health and Safety Manager for more details. **The following steps must be followed for work that requires a permit-to-work.**

Step 1 - Confirm that your work needs a permit-to-work

A permit must be issued if any of the following activities are going to be carried out on property managed by the University:

- **Work on industrial gas systems** – 'Industrial gas system' describes the provision of gas (e.g. North Sea gas to heat buildings/ water or ovens for cooking).

- This **does not** include emergency works undertaken by an approved contractor in order to avert, or remedy, a major incident. Emergency work is covered by the critical incident plan/ emergency plan.
- **Excavations (digging a hole on property managed by the University)** – digging into the ground at a depth greater than 50mm (2") below surfaces where underground services may be found.
 - This includes: trenching, excavation as part of construction work, digging, preparation of new shrub beds, and installation of fence posts.
 - This **does not** include: routine maintenance of existing shrub beds where digging is less than spade depth (300mm or 12"), or regular maintenance in a space where up-to-date utility drawings are available (e.g. the grassed area outside LUU where service utilities are clearly marked). Contact FD Estates Helpdesk for more information (ext 35555). It also **does not** include faculty-managed teaching or research (as these will be covered by the usual activity risk assessment).
- **Hot works** – work involving temperatures that could give rise to fire or ignition of flammable substances and combustible materials.
 - This includes work that uses or creates naked flames, sparks, smoke or fumes, e.g. brazing and soldering; bitumen boilers; electric arc welding; gas welding or cutting; hot air welding; disk cutting in confined spaces and areas where there is a high risk of fire or explosion.
 - It **does not** include faculty-managed teaching or research experiments or faculty/service-managed routine work in a workshop (as these will be covered by the usual activity risk assessment), or work which is carried out outside and located away from buildings and combustible/flammable materials so that there is no longer a fire risk.
- **Work on pressurised/steam systems (including steam distribution and compressed air systems)** – 'pressurised/ steam system' means any system comprising one or more pressure vessels of rigid construction, any associated pipe work and protective devices (e.g. pressure relief valve) which may (or already does) contain steam or any fluid that would have a vapour pressure greater than 0.5 bar above atmospheric pressure when in equilibrium with its vapour at either the actual temperature of the liquid or 17.5 degrees Celsius.
 - This **does not** include transportable pressure containers (e.g. compressed gas cylinder) or faculty-managed teaching or research experiments or faculty/service-managed routine work in a workshop which would be covered by the usual activity risk assessment (e.g. autoclaves would not be included unless they were operated directly from an in-house steam system). It also **does not** include emergency works undertaken by an approved contractor in order to avert, or remedy, a major incident, emergency works is covered by the critical incident plan/ emergency plan.
- **Work on high (anything above 240V) and low (230/240V – normal mains) voltage systems**
 - This includes: Switching off any isolator, switch fuse, distribution board, or mains circuit board that may affect people's safety (e.g. by switching off a fume cupboard system without telling the users); Switching off any isolator, switch fuse, distribution board, or mains circuit board that may affect the University's information technology systems; test on live electrical apparatus; test on electrical distribution systems that need the installed safety systems/barriers defeated or removed; work on electrical distribution systems that expose personnel to shock hazards; work on remote and automatically controlled low voltage switch-gear; isolation of electrical equipment to make it safe unless carried out by a competent person holding a valid Authorisation Certificate; test on any earthing system whilst the supply is still live.
 - This **does not** include emergency works undertaken by an approved contractor in order to avert, or remedy, a major incident, emergency works is covered by the critical incident plan/ emergency plan. Or faculty-managed teaching or research experiments or faculty/service managed routine work in a workshop (as this is covered by the usual activity risk assessment).

Permits-to-work cannot be issued for any other work activity, unless FD Estates give their express approval.

Step 2 - Request a permit-to-work

The request for a permit-to-work goes initially to your Health and Safety Manager.

Step 3 - Health and Safety Manager identifies Permit Issuer

FD Estates have identified, trained and authorised a number of key staff as Permit Issuers. Mainly they are FD Estates staff but occasionally they may sit within other services or faculties. In most cases Permit Issuers are only trained and authorised to issue permits for one type of activity. Your Health and Safety Manager will be able to tell you which Permit Issuer to contact.

Step 4 - Permit Issuer confirms training has been checked

They will check that the people carrying out the work (Permit Receiver and workforce) have been trained and deemed competent for this particular work activity by either their line manager (for University staff) or the contractor company (for contractors).

Step 5 - The following essential elements for the permit-to-work are completed by the Permit Issuer (either using the electronic SOTER system if you have access or the University approved permit-to-work form):

- **Permit title** (e.g. hot works, confined space etc.)
- **Unique permit number** (for SOTER this is assigned electronically)
- **Reference to other relevant permits or isolation certificates**
- **Work location** (where possible use FD Estates building and room numbering scheme)
- **Plant identification** (if applicable to the task/work)
- **Description of work activities** to be done and any limitations
- **Hazard identification** (including residual hazards and hazards introduced by the task/work)
- **Precautions necessary** – (including any emergency procedures), the person(s) who carries out precautions, (e.g. isolations), should sign that precautions have been taken
- **Protective equipment required** (e.g. Breathing apparatus, hard hat etc.)
- **Authorisations** – e.g. isolation of services, access to restricted areas etc.
- **Date and time duration of permit** (not exceeding 8 hours unless an extension is granted)
- **Acceptance, hand-back and cancellation signatures**

SOTER is FD Estates' e-system for managing contractors and works carried out on University managed premises, including permits-to-work. For SOTER the Permit Issuer completes the relevant type of permit-to-work online for printing and issuing and the system keeps track of open permits, the locations they are in use, and names of people linked to the permit (e.g. Permit Receivers and Permit Issuers). Paper based systems can be used as a backup (e.g. network failure) or if you do not have access to SOTER. In this case complete all sections of the University-approved permit-to-work (copy pad) paper based form (available from Health and Safety Services) and notify FD Estates Health and Safety Team (ext. 35555) of the work.

Step 6 - Location visit and sharing information about risks and controls

Before issuing the permit, the Permit Issuer visits the location where the work is being done to check that all precautions have been taken. They explain the requirements identified in the permit-to-work (such as any necessary controls, limitations etc.) to the Permit Receivers (person or people accepting the permit). They should also notify anyone who may be affected (e.g. other staff in the area) of relevant control measures or disruption to services. If excavations are going ahead, ISS should be notified.

Step 7 - Permit Issuer checks for conflicts with already issued permits-to-work

When a permit is prepared, the Permit Issuer will take account of other activities currently planned or underway which may impact on the work to be carried out. The Permit Issuer informs everyone involved with permits-to-work of potential interactions that may arise. This relates particularly to other permit-to-work activities that overlap (e.g. a number of electrical contractors working in the same location will all depend on the same electrical isolation for their safety); where this is the case additional controls (e.g. lockout/tag out systems) are required. This can either be done by directly checking SOTER if you have access, or contacting FD Estates Health and Safety Team (ext. 35555) for further information.

The Permit Issuer also needs to check whether there are any authorisations-to-access which might impact on the work.

Step 8 - Permit Issuer signs permit-to-work

The Permit Issuer signs the permit-to-work to confirm that it has been correctly completed, that isolations have been made and precautions taken. This is either as an electronic signature on SOTER or a signature on a paper copy. At this stage the Permit Issuer also checks that the Permit Receiver understands the permit-to-work system and controls, as well as the consequences of non-compliance as set out in the FD 'Creating and maintaining a safe environment' document and the University Health and Safety Policy.

Step 9 - Permit Receiver (People or person receiving the permit-to-work), signs it

The Permit Issuer decides who signs to accept the permit-to-work (this depends on the type of work e.g. for confined space entry all those involved with the work would sign). The person or people identified as Permit Receivers by the Permit Issuer sign to confirm understanding of the work to be done, hazards involved, emergency procedures and to accept the precautions required. They are signing to confirm that the permit information has been explained to the workers involved, and that they will follow the precautions written in the permit-to-work. They are also signing to say that they have received the authorised permit-to-work, understood its content and checked that the necessary control measures and precautions are in place before starting work.

Step 10 - Issuing the permit

The Permit Issuer keeps a record centrally available of the permit-to-work which has raised, so that other Permit Issuers can access the information to check for conflicts. This could either be through a paper copy or electronic link to a mobile device (through SOTER).

The Permit Issuer also gives one **paper** copy to the Permit Receiver, who keeps it available and displayed at the location where the work is being carried out. At this point the permit is now 'open' and work can proceed.

The permit-to-work can only be issued on the same working day as the day the work will happen for a period of 8 hours. However sometimes work will extend beyond the original 8 hours; in this case the Permit Issuer must revisit the site to check if anything has significantly changed (i.e. the type of work, the risks, the people involved etc). If there are any significant changes see Step 11; if not the Permit Issuer can make a decision to extend the permit for additional periods of 8 hours.

Step 11 - Changes to and review of the permit-to-work

When work has been completed or suspended (for reasons such as the conditions alter e.g. rain affecting a confined space) **or** if the task needs to be altered (e.g. need to use a cutting disk instead of a saw) the Permit Issuer must be informed immediately. If in any doubt, or if any circumstances or conditions change, the work should be stopped, the work area made safe and the Permit Issuer contacted immediately.

Significant changes (e.g. in work activity, people involved or risks) – anyone involved needs to contact the Permit Issuer and the work will be stopped. The Permit Issuer will review the current permit-to-work, and then decide to either:

- suspend the permit-to-work (and therefore the work), or
- cancel the original permit-to-work (see Step 12) and issue a new one (which now takes account of changes) or
- simply cancel the permit-to-work and therefore the work (see Step 12).

Other changes (e.g. change in weather, conflict with other on-site events such as student graduation or uncertainty over competence etc) – anyone involved needs to contact the Permit Issuer, who will review the permit-to-work to check it is still relevant. If not, they will either suspend the work or issue a new permit-to-work.

NB – Suspension of the permit-to-work - this means that the permit-to-work (and therefore the work) is put on hold, often because conditions, circumstances or risks (e.g. waiting 2 hours for a part to come in) have changed. The work can either be put on hold for a short duration or a decision can be made to cancel the permit-to-work entirely (see next step). Anyone involved (i.e. the Permit Receiver or Permit

Issuer) can ask for the permit-to-work to be suspended, and this is done by the Permit Issuer. If the work has been suspended, the reason for it is noted on the permit by the Permit Issuer

Hand back of the permit-to-work by the Permit Receiver

Completed work – when the work is finished the Permit Issuer meets the Permit Receiver at the site to check that the work has been completed and the work site left in a safe state, or sealed off / locked off so that it is not accessible. The permit-to-work is signed off by the Permit Receiver certifying work completed and site safe.

Uncompleted works – if the work has not been completed for any reason (other than suspension in which case see Step 10), or if the permit-to-work time period has been reached, the Permit Issuer goes to the site to check the state. If the time period has been reached then an extension of 8 hours can be made (see Step 10). The permit-to-work is signed off by the Permit Receiver and the Permit Issuer notes the reason and completion level on the permit-to-work and signs it. A new permit-to-work needs to be issued to enable the work to be completed.

For **paper based** permits-to-work both copies come back together for cancellation (see next step).

Step 12 - Before reinstating services/ areas, check for cross-referenced precautions and isolation

Before reinstating services or areas, the Permit Issuer checks if any precautions and/or isolations are cross-referenced to by other permits-to-work (i.e. where a number of work activities are being carried out that use a common control such as electrical isolation). They are checking to see if the plant is ready for testing and re-commissioning and that precautions and/or isolations have been withdrawn.

NB:

- The Permit Issuer cannot reinstate the services/ areas until any connected permits to work are closed off and their work activities and all other controls have been completed.
- The Permit Issuer checks that all locks/ isolation methods from their own work activity are removed. If any locks/ isolation methods remain from any connected permits-to-work they remain under the control of the original Permit Issuer.
- The Permit Receiver (and Permit Issuer) of the last-to-be-closed permit-to-work must ensure that any precautions and/or isolations are withdrawn before cancellation of that permit-to-work.

Step 13 - Cancellation of the permit-to-work by the Permit Issuer

Completed work – the permit-to-work is now signed off by the Permit Issuer who first checks that the permit-to-work has been signed off by the Permit Receiver. Then the Permit Issuer certifies that the work is completed and the site is safe. The permit is now formally cancelled (closed).

Uncompleted work – the permit-to-work is signed by the Permit Issuer, and the Permit Receiver. The Permit Issuer checks that the site is made safe and/or secure, and where necessary, that precautions and/or isolations have been withdrawn. The reason why the work has not been completed along with the level of completion is noted, and the permit-to-work is formally cancelled (closed).

In **exceptional circumstances**, the Permit Receiver may not be available (e.g. removed from site). In this case the Permit Issuer in consultation with the Authorising Engineer can cancel the permit-to-work having undertaken the checks that the Permit Receiver would have carried out.

Step 14 - Record keeping

The Permit Issuer makes a record of the completed permit-to-work and keeps the information for 3 years. If this is done through SOTER it will be kept automatically. If it's paper-based this should be kept using your own school/ service local system.