



Safety Services Guidance

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Key word(s):	Permit to work system, Competence, Responsible Person, Plan
Target audience:	Heads of School, Technical Services Managers, Technical Operations Managers, Schools Safety Advisors, Principal Investigators

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	Version 1.1
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Introduction

- 1. This document gives guidance to Schools, Directorates, Faculties and Institutes who require a local permit to work (PTW) system to manage hazardous activities, including the work of contractors they may employ.
- 2. A permit-to-work system is a formal written system used to control certain types of work or activity that is potentially hazardous.
- 3. The use of a permit to work system is recommended for all high risk activities, where a risk assessment shows robust health and safety controls are required. The circumstances requiring a permit to work are not prescribed within this guidance document, but typically, they will be required for 'hot works' such as using oxy-acetylene equipment for welding, work where toxic or asphyxiating atmospheres exist or could exist, work in confined spaces, work on high voltage apparatus and work of a comparable risk.
- 4. A permit to work document specifies the work to be done and the precautions to be taken.
- 5. Permits themselves do not make a job free from risks; they rely on effective control and co-ordination.
- 6. Those completing a permit to work should have sufficient technical knowledge of the process being employed to undertake and complete the works.
- 7. Permit to work systems and procedures are a formal method for ensuring safe working practices and safe systems of work are agreed. A PTW system requires a 'Responsible Person' (an experienced and authorised person) to pre-assess the planned task (with any necessary technical assistance) and any hazardous circumstances involved and then prescribe in writing:
 - the planned work and the hazards involved
 - the precautions required and any emergency and contingency procedures, including if applicable, the rescue of an injured person
 - who is authorised to carry out the work
 - the limits of the permit to work area or equipment

Note

This guidance should be read in conjunction with Health and Safety Executive guidance available at: - <u>http://www.hse.gov.uk/comah/sragtech/techmeaspermit.htm</u>





8. Estates and Facilities ("Estates") has a permit to work system in operation that must be followed for school activities that take place in areas under Estates control eg plant rooms, roof access.

Permits to Work (PTW)

- 9. A permit to work should ensure that:
 - Everyone involved with the planned work is fully aware of the foreseeable hazards. It is essential that the Responsible Person has sufficient technical knowledge of all the work, and is competent to make judgements about the safety of proceeding with it;
 - The location and boundaries of the work are identified, any services are isolated or made physically safe, any other specific hazards are identified and made safe where possible or suitable controls put in place;
 - The person(s) in charge of both the area and the planned work are identified, and any necessary signage is displayed in and around the area;
 - Any monitoring or sampling required before, during and after the work is identified;
 - When the work is complete, the workplace or plant is left in a safe condition to return to normal operation.

Information contained within a Permit to Work

- 10. A permit to work may typically specify:
 - Details of the work to be undertaken;
 - The plant / equipment involved and how it is identified;
 - Who is authorised to do the work;
 - The method used to make the plant safe;
 - Identification of potential hazards or hazards which may arise as the work proceeds;
 - Precautions needed to be taken against these hazards;
 - The limits of the permit to the work area or equipment;
 - Other permits in operation within the vicinity;
 - Cancellation / extension for time process.





11. A permit should also include a space for a signature to certify when the work has been completed. In addition, a space for a signature confirming re-acceptance of the plant / equipment.

Competent Persons

- 12. The issuing of a permit to work does not, by itself, make a job safe, this can only be achieved through a combination of effective preparation, supervision and competence. The permit-to-work system should ensure that competent people have thought about foreseeable risks and suitable precautions.
- 13. The term 'competency' has never been defined in case or statute law, the Health and Safety at Work Regulations 1974 defines a person as being competent when that person has sufficient skills, knowledge, training and experience as to enable them to assist in securing compliance, on the part of the employer, with the necessary safety legislation and maintenance procedures.

How should a PTW system work?

- 14. Those requiring a PTW system for activities under their control should ensure the procedure for issuing a PTW is included in the arrangements for implementing the School / Directorate Safety Policy. It should explain clearly when and how the PTW system is used.
- 15. The PTW system should be controlled by a Responsible Person appointed by the School / Directorate. This person should be competent, of a sufficiently senior level, and have the authority to direct the process. The Responsible Person should know or be able to foresee the hazards and the potential risks involved in the proposed work.
- 16. A PTW should be issued to a named person, such as the supervisor of the work, not to a position or group of people. This will pinpoint the responsibility for the control of the work. The permit should define / incorporate:
 - the exact location of the work;
 - the day, date and duration of the permit;
 - the process(es) to be carried out;
 - the risk assessment for the work (this could be generic in nature, allowing decisions about conditions encountered on the day to be taken by competent and trained personnel);





- who will supervise (if applicable) and who will carry out the work, what experience / qualifications / skills are required;
- the types of tools, plant and machinery to be used;
- any personal protective equipment required;
- any special or specified precautions required to control any risk, eg types of fire extinguisher for hot work permit, life line for confined space entry, how to obtain emergency assistance and first aid, etc.
- 17. When the Responsible Person is satisfied all necessary precautions are in place, they can issue the PTW for a specified time period and ensure that the work starts and ends within the agree times. If the specified time has run out before the work is complete, all work must stop, the work area / plant must be left in a safe condition and the current permit must be returned to the Responsible Person who will sign it off. Another permit for completion of the work would be required.
- 18. Generally, a PTW should not be issued for longer than one day. In order for the PTW system to be effective, the terms and conditions of the PTW must be adhered to and any contraventions must be dealt with as appropriate.
- 19. In practice, the PTW should be produced in triplicate; the original copy is given to the person who is going to carry out the work, a copy given to the manager of the location where the work will be undertaken and a copy retained by the Responsible Person. At the end of the work, all copies must be returned to the Responsible Person who will maintain a record of the PTW.
- 20. A <u>flow chart</u> shows the PTW system.

Hot and Cold Work Permits

- 21. Both these types of permit are concerned with preventing fires or explosions, eg where work has to be carried out in circumstances where there is a risk of fire through use of open flames, hot surfaces, or spark-generating equipment in the presence of flammable liquids / materials, or in a flammable atmosphere.
- 22. Hot work permits allows work eg welding, flame cutting etc to be carried out, with specified precautions. A cold work permit allows cold work eg use of chisels which could produce a spark, or any other form of work which, although seemingly cold could produce a source of ignition, for example through discharge of static electricity, chemical reaction etc.





Confined Space Entry Permits

23. These are used for work in confined spaces, such as vessels, manholes, tanks and sewers, or even small laboratories where the atmosphere is, or could become toxic, flammable, or deficient in oxygen. The requirements of the Confined Space Regulations 1997 should be considered when preparing for work of this nature.

Electrical Work Permits

- 24. Electrical work permits are for work being undertaken on equipment which would otherwise be hazardous because of access to live electrical parts. Such permits normally cover formal isolation and earthing procedures and allow either electrical work or testing to be performed.
- 25. A sample permit to work pro forma is attached for reference.

Bibliography

<u>Confined spaces - A brief guide to working safely</u> INDG 258 (Rev 1) 2013 HSE Publications

Safe work in confined spaces: Confined Spaces Regulations 1997 Approved Code of <u>Practice</u> L101, 3rd Edition 2014, HSE Publications

HSE website guidance Human factors: Permit to work systems - <u>http://www.hse.gov.uk/humanfactors/topics/ptw.htm</u> Safe maintenance: Isolation and permits to work -<u>http://www.hse.gov.uk/safemaintenance/permits.htm</u>





Appendix 1 Flow Chart



MANCHESTER 1824	
The University of Manchester	



University of Permit to Work School:						Date Issued:				Permit Number:							
Manchester																	
Location of	f work:							Start	time:				Finisł	h Time:			
Type of	General		Roof		Ele	ectrical			Work at	:		Hot work		(Confined		
permit			Access	5					height					:	Space		
Work to be	carried out:			Perso	on responsible:						Risk asse	essment / I	nethod	l statement	details:		
Approx time	e required:							1		1				1		1	1
Safety Pre	cautions						Yes	No	N/A	PPE		Yes	No			Yes	No
To be comp	leted by perso	on responsible	for carr	rying c	out the work)		(pl	lease t	ick)	Goggles				Hard hat			
1. Has a risk	< assessment	and method st	tatemer	nt bee	n carried out?					Gloves	Gloves			Dust mas	sk / RPE		
2. Are all the	e workforce q	ualified to carr	ry out t	he tas	k?					Safety footwear				Safety ha	arness		
3. Are any e	emergency arr	angements re	quired?							Hearing protection				High vis o	clothing		
(specify add	litional safety	precautions re	equired,	see g	juidance for exam	nples)				Servio	es to be i	solated:		1			
								Yes No Specify arrar			ecify arran	gements					
										Fire al	arm / zone						
										Electri	CS						
										Water							
										Gas							
										Compr	ressed air						
										Steam							
										Others	5					1	1
										Chem	ical Safety	y:				Yes	No
										Has CO	OSHH data	been supp	lied fo	r substance	es to be		
										used?							
										Has CO	OSHH preca	autions be	en iden	ntified and			
										implen	nented?						
										Is wor	k being car	ried out b	y lone v	worker, if y	es is		
										monito	oring requir	red?					

	MANCHESTER 1824
1	The University of Manchester



Issuing Authority:	Hand back:
I authorise the work to be carried out and have	I certify that the work has been completed /
notified the relevant personnel.	partially* completed and left in a safe condition
	(*delete as appropriate)
	This permit is now cancelled. Person
	performing work to complete.
Person performing work:	Hand back:
I have read and understood the conditions of	I certify that the work has been completed /
this permit.	partially* completed all guards and safety
	devices reinstated and the area is safe.
	(*delete as appropriate) Issuing authority
	to complete.





General Instructions for the Issue of a Work Permit

- 1. A work permit should be issued for all high risk activities, where a risk assessment shows robust health and safety controls are required
- 2. The work permit is valid only for the particular job and location described on the permit
- 3. The work permit is valid for the day of issue. No permit should be valid for a period in excess of 24 hours from the time of issue
- 4. Additions of alteration to a work permit after it has been issued are strictly forbidden unless made with the agreement of the person issuing the permit. If unexpected risks are encountered e.g. asbestos work should stop and a new permit may be required
- 5. If control of the work is handed over from one authorised person to another the work permit must be countersigned by the person accepting responsibility
- 6. Toxic gas results Check Workplace Exposure Limit for any toxic gas that may be present to identify safety precautions required
- 7. Flammable gas results If levels are found to exceed the lower explosive limit then entry is not permitted and actions should be taken to reduce the explosive limit
- 8. Oxygen test results If readings are found to be below levels required for sustaining life then entry is not permitted
- Dust / Fibre results If test results find that dust / fibre count to be above the workplace exposure limit then respiratory protection / breathing apparatus is to be worn by all operatives or measures put in place to reduce the dust / fibre count
- 10. Safety Precautions could include: -
 - Is appropriate PPE available? Tick box to identify PPE required.
 - Does electrical supply require isolating?
 - Is voltage detection equipment required?
 - Do isolators require locking off / tagging?
 - Is work to be carried out at height?
 - Are ladders or scaffolding required?
 - Are personnel aware of actions to be taken in the event of an emergency?
 - Is there a risk of falling objects?
 - Is adequate fire fighting equipment available?
 - Have flammable liquids / materials been removed from work area?
 - Have gas cylinders been properly secured?
 - Is safe access and egress provided?
 - Any specialist training required





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