

# Provision and Use of Work Equipment Policy

Document Control Information	
Version control	2.0
Owned by:	Health and Safety Team
Latest amendment on:	22-01-2020
Approved by:	Health and Safety Committee
Approved on:	01-10-2018
Coming into effect on:	01-10-2018
Review date:	February 2023

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## **1. Introduction**

The University fully accepts its legal obligations to take all reasonable steps to minimise risks arising from its activities which may affect its employees, visitors, residents and members of the public. This policy highlights the requirements for all work equipment used. It is to be carried out in accordance with the Management of Health and Safety at Work Regulations 1999, the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER).

This should be read in conjunction with the University's Health, Safety & Wellbeing Policy to ensure that the correct level of control is taken.

In addition there is a general duty imposed on designers, manufacturers, importers and suppliers of any equipment used to ensure that

- It is safe when properly used;
- Adequate information is provided: (a) about the use for which it is designed, (b) that it has been tested and (c) about any condition necessary to ensure that when put to that use it will be safe and without risk to health.

## **2. Scope**

This policy is applicable to all equipment used at work by the University's employees. It is also applicable to equipment used by students in the course of their studies.

## **3. Legal Requirements**

These arrangements will be carried out in full compliance with all relevant health and safety at work legislation including other sections of the Health, Safety & Wellbeing Policy. The exact nature of the legislation applicable will be determined by the nature of the work. Each division must ensure that competent advice is obtained from the University's Health and Safety Adviser on the appropriateness of other legislation before local policies and procedures are drafted.

The legislation applicable includes the following:

- Health and Safety at Work Act 1974
- Management of Health and Safety at Work Regulations 1999
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- Supply of Machinery (Safety) Regulations 2008 (SMSR)
- Electrical Equipment (Safety) Regulations 2016
- Electromagnetic Compatibility Regulations 1992
- Gas Safety (Installation and Use) Regulations 1998
- Workplace (Health, Safety and Welfare) Regulations 1992
- Construction (Design and Management) Regulations 2015

## **4. Responsibilities**

The University has, through its Statement of Intent, made the commitment to creating a safe workplace for its employees and users.

Each division shall ensure that University Officers are fully aware of and understand their responsibilities with regard to work equipment and are provided with adequate resources and training to ensure safety.

### **4.1 Board Members / Senior Management**

It is the responsibility of the Board Members & Senior Management to ensure that:

- This policy is brought to the attention of all staff to whom it may relate;
- All equipment/activities which may create a risk with respect to equipment related work are risk assessed;
- Appropriate controls are put in place where a significant risk is identified.

### **4.2 Line Managers will:**

- Not allow any new equipment to be used until it is fully commissioned if new, the relevant risk assessment has been completed and information, instruction and training have been provided to its operator;
- Obtain all relevant information from suppliers in the use and maintenance of equipment, including second-hand equipment;
- Ensure that members of their staff who use equipment have been provided with adequate information, instruction and training;
- Ensure that any equipment used by a member of their staff has been risk assessed and is safe to use;
- Ensure that where members of their staff use equipment that the findings of the relevant risk assessment have been implemented;
- Identify any special measure required for vulnerable individuals – including young workers (16 -18 years old), students, new recruits, and prohibitions on young workers, for example on using dangerous equipment, should be clearly specified.

### **4.3 Contract Administrator / Premise Managers / Facilities Management Services**

The Contract Administrator/Premise Managers/Estates Team will request to inspect the contractor's qualifications/certificates for equipment in relation to any work undertaken that involves the use of machinery (hoists, cranes, forklifts etc.) before project / work commences.

Estates will be responsible for the issuing of Permits to Work. However this does not relieve the Contractor of his responsibilities to ensure his operatives are suitably qualified and equipment used by the contractors are safe to use.

## 4.4 Employees

All employees employed by the University are expected to comply with the University's health and safety policies and procedures. This will include:

- Participating in the risk assessment process;
- Using the equipment in the manner prescribed in any approved documents such as manufacturers operating instructions or instructions from other competent sources;
- Not, under any circumstances, interfering with or misusing anything provided in accordance with health & safety law e.g. the deliberate removal or overriding of guards and interlocks on machinery.
- If required to maintain work equipment, ensuring that procedures are followed and that records of inspections, tests, calibrations / recalibrations are maintained and recorded accurately.

## 4.5 Students

- Students will be informed of the hazards and the reason for following safe system of working. Equipment supplied as part of the assessment they will not to intentionally or recklessly interfere with or misuse the PPE.
- Students are required to wear the Personal Protective Equipment (PPE) provided to them, store as instructed and report damage.

## 5. Definitions

**Work equipment:** almost any equipment used by a worker/employee at work including:

- Machines such as photocopiers, mobile telephones, computer, floor buffers, circular saws, drilling machines, mowing machines, tractors, dumper trucks and power presses;
- Hand tools such as screwdrivers, knives and hand saws.
- Lifting equipment such as fork lift trucks, elevating work platforms, vehicle hoists and lifting slings;
- Other equipment such as ladders and water pressure cleaners.

**Use of work equipment:** defined as “any activity involving work equipment”. It includes “starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning”.

## 6. Main Requirements of PUWER

Work equipment must be suitable for the purposes for which it is used. Consideration should be given to the working conditions when selecting work equipment. Work equipment must be properly maintained. If a maintenance log is kept then it must be kept up to date.

Responsible persons may be required to produce maintenance logs for inspection during internal audits or during any inspections by the enforcing authorities.

If the use of work equipment creates a specific risk to health and safety then the use of that work equipment should be restricted to those persons responsible for using it. Repairs, modification or maintenance of such equipment must be restricted to designated trained persons. For example, abrasive wheels must only be changed by designated persons who have been properly trained and who are competent to do so.

Users and supervisors of work equipment should be given adequate information, instruction and training for health and safety purposes. The University should provide information, instruction and training not only to those who actually use work equipment, but also to staff supervising or managing its use.

All work equipment put into use after December 1992 must comply with all relevant EC Community Directives. The duty of ensuring compliance rests with the manager, so CE marks should be sought wherever possible when purchasing equipment and the equipment should be fully risk assessed. Competent equipment suppliers should be able to provide advice on purchase (both new and second hand). In respect of machinery, adequate operating instructions need to be provided with the equipment in addition to information about residual hazards (e.g. noise, vibration etc.).

## **7. Risk Assessment of Work Equipment**

The Management of Health and Safety and Work Regulations 1999 requires a competent person to carry out a suitable and sufficient risk assessment, in order to identify the nature and level of risks associated with work equipment. Further information and guidance on risk assessment is available in the Risk Assessment Policy.

### **7.1 When identifying the risks, consider:**

- All the work which has to be done with the equipment during normal use also during setting-up, maintenance, repair, breakdown and removal of any blockage.
- Who will use the equipment, including inexperienced persons, those with language difficulties, new starters, those who have changed jobs within the University or those who may have particular difficulties e.g. those with impaired mobility;
- Young Persons, who may be inexperienced and lack knowledge or awareness of existing or potential risks;
- People who may engage in horseplay and/or act carelessly or are likely to make mistakes;
- Whether guards or safety devices are poorly designed and inconvenient to use or are easily defeated;
- The type of power supply, e.g. electrical, hydraulic or pneumatic.

### **7.2 Typical risks associated with work equipment are:**

- Using the wrong equipment for the job, e.g. ladders instead of access towers for an extended job at high level;
- Not having adequate guards on machinery, leading to accidents caused by entanglement, shearing, crushing, trapping or cutting;

- Not fitting adequate controls, or the wrong type of controls, so that equipment cannot be turned off quickly and safety, or starts accidentally;
- Not properly maintaining guards, safety devices, controls etc. so that machines or equipment become unsafe;
- Failure to provide adequate information, instruction, training and supervision for those using the equipment.
- Not maintaining work equipment of carrying out regular inspection and thorough examinations;
- Not providing the personal protective equipment needed to use certain machines safely, e.g. angle grinders. Further information on PPE is available in the PPE Policy.

### **7.3 Dangerous Parts of Machinery**

It is an absolute duty to prevent persons coming into contact with dangerous parts of machinery. Where practicable this should be through the use of fixed guards which are properly fastened and require tools to remove them. If regular access to parts of the machine is required and a fixed guard is not practicable, then an interlocked guard should be used. This will ensure that the machine cannot start before the guard is closed and will stop if the guard is opened while the machine is operating.

On equipment such as guillotines, devices such as photoelectric systems or automatic guards may be used instead of fixed or interlocked guards. Where guards cannot give full protection from identified hazards, jigs, holders, push sticks etc. should be used to move the work piece.

Whatever guards or control measures are used, they must be suitable, of good construction, be maintained, allow the machine to be cleaned and maintained safely, not give rise to an increase in risk, not be easily bypassed or disabled and be situated at a suitable distances from the danger zone.

Note: For machinery used in engineering and woodworking, the Health & Safety Executive have produced more detailed guidance.

### **7.4 Protection against Specific Hazards**

PUWER requires the University to take measures to ensure that the exposure of a person using work equipment to any risks to their health and safety from any hazards given below is either prevented, or where that is not practicable, adequately controlled:

- Any article or substance falling (e.g. from a scaffold) or ejected (e.g. swarf ejected from a machine tool) from work equipment.
- Rupture or disintegration of work equipment (e.g. parts braking off and being thrown off such as an abrasive wheel bursting, a scaffold collapsing etc.)
- Work equipment overheating or catching fire (e.g. through friction, electric motor burn out, cooling system failure, etc.)
- The Unintended or premature discharge of any gas, dust, liquid or vapour or other substance from work equipment (whether produced, used or stored in the work equipment);
- The unintended or premature explosion of work equipment or of any substance or article used or stored in it.

**Note:** Prevention should be achieved as far as possible other than by the provision of personal protective equipment, information, instruction, training and supervision.

## **7.5 Protection against Temperature Extremes**

Measures must be taken to ensure that people are protected from work equipment or substances used, produced or stored in work equipment which are at extremes of temperature.

## **7.6 Control Systems**

PUWER sets minimum objects for the fitting of control devices to work equipment. Where appropriate work equipment should be:

- Fitted with start and governing controls;
- Fitted with one or more stop buttons;
- Fitted with an accessible emergency stop button.

All controls on work equipment should be clearly visible and identifiable and, if needs be, they should be marked. All control systems should be, so far as is reasonably practicable, safe.

Where appropriate, work equipment should be provided with a means to isolate it from its power source. Steps should be taken to prevent reconnection causing danger to other persons. Where necessary, work equipment, or any part of work equipment, should be stabilised by clamping or otherwise.

Suitable and sufficient lighting should be provided at any place where a person uses work equipment.

Work equipment should be so constructed to ensure that, as far as is reasonably practicable maintenance operations can be carried out without risk to health.

Work equipment should be clearly marked as appropriate for reasons of health and safety.

Work equipment should incorporate warnings or warning devices as appropriate. Such devices shall only be appropriate if the warnings that they give are unambiguous, easily perceived and easily understood.

## **7.7 Control of Vibration at Work**

The Control of Vibration at Work Regulations 2005 aim to protect workers from risks to health from vibration. Further advice on vibration is available in the Control of Vibration Policy.

## **7.8 Vacuum Equipment at Work**

Vacuum equipment is subject to the same PUWER regulations requirements as described above, as well as the Pressure Systems regulations.



## **8. Selection of Work Equipment**

The selection of the right equipment for the work to be done is important as this often means planning ahead. One must think about how and where it will be used and who will be operating it. Other considerations must also include the suitability for the task, user, and/or environment and the guarantee that it is as safe as possible.

### **8.1 Woodworking Machinery**

No person shall be employed on any kind of work at a woodworking machine unless they have been sufficiently trained to a level that can be deemed as competent.

Every person while being trained shall be fully instructed by a competent person as to the dangers arising, in connection with the machines used, the necessary safety precautions, and the requirements of the relevant legislation. The importance of using the correct methods of guarding and other safety devices provided for particular machines must be taught.

No person under the age of 18 years shall operate any of the following:

- Circular Sawing Machines;
- Other machines fitted with circular saw blades;
- Wood Planing Machines;
- Vertical Spindle Moulding Machines;

Unless they have successfully completed, an approved course of training. Those working under the adequate supervision of a properly trained and experienced person, whilst undergoing training, would be exempt from this requirement.

Training shall also cover those assisting at the machines.

### **8.2 Machine Safety**

- All woodworking machines should be fitted with a means of isolation from the electrical supply;
- The isolator should be conveniently positioned close to the machine;
- Lockable isolators give an increased degree of protection, particularly during maintenance operations;
- Lockable isolators can also be used to prevent unauthorised use of machines;
- Woodworking machines must also be provided with an efficient means of starting and stopping;
- Start and stop controls should be within easy reach of the operator in the normal operating position;
- Machines should be switched off when they are not in use and should not be left unattended until the cutter has stopped turning.

### **8.3 Machine Braking**

For new woodworking machinery, the provision of an automatic brake is an essential safety requirement of the *Supply of Machinery (Safety) Regulations 2008*.

These regulations require that the machinery must be equipped with an automatic brake that stops the tool in a sufficiently short time (defined in CEN standards as 10 seconds or less) if there is a risk of contact with the tool while it runs down.

This requirement does not apply to second-hand machinery or to existing machinery that is already in use. However, because of the safety benefits that braking provides, it is appropriate that the same standard is now applied to these machines as to new machines.

Regulation 15 of PUWER 98 requires work equipment to be provided with controls which bring the work equipment ‘. . . to a safe condition in a safe manner’ and to achieve this, the Approved Code of Practice (ACOP) from the HSE calls for:

*Employers to carry out a risk assessment, this is to determine whether the retrofitting, of braking to their machines is necessary. It also includes a list of machines in where braking will almost certainly be required.*

Further reference should be made to ***L115 Safe Use of Woodworking Machinery. Provision and Use of Work Equipment Regulation 1998 as applied to woodworking machinery ACOP, HSE 1998*** available for free download from HSE books on the HSE website.

## **9. New Equipment**

All new machinery should be:

- CE marked;
- Safe – never rely on CE markings to guarantee machinery is safe. It is only a claim by the manufacturers that the equipment is safe. You **MUST** make your own safety checks;
- Be provided with an EC Declaration of Conformity (ask for a copy);
- Be provided with instructions in English.

### **9.1 New Vehicles**

A selection of suitable and appropriate vehicles should be made by the Estates Management team in conjunction with the University’s Procurement team.

### **9.2 Hire out of Machinery**

In the event that equipment is rented, leased, hired or borrowed the person from which the equipment is hired is responsible for ensuring that it is safe and fit for use at the point of hire. They also have a responsibility to ensure that regular maintenance is carried out and recorded. Reasonable attempts to find out what the equipment will be used for and provide advice on how it should be used should be taken. The safe use of the equipment is the responsibility of the person who hires it.

### 9.3 Second-Hand Equipment

Suppliers of second-hand equipment also have duties to ensure that such articles are safe as reasonably practicable when supplied. They should safeguard second hand machines or obtain a written undertaking from the purchaser that they will take specified steps to ensure that the article is safe.

If machinery has been refurbished to an extent that almost all replaceable parts are new, it would then be considered to be new machinery and so you would need to comply with the *Supply of Machinery (Safety) Regulations 2008*. Purchasers of such second-hand equipment are responsible for ensuring that it complies with all the relevant recommendations. They should always undertake a Risk Assessment and act appropriately to reduce the risks.

## 10. Use of Machinery

Where the use of work equipment is likely to involve a specific risk to health and safety, every employer shall ensure that:

- The use of that work equipment is restricted to those persons given the task of using it, and;
- Repairs, modifications, maintenance or servicing of that work equipment is restricted to those persons who have been specifically trained to perform operations of that description (whether or not also authorised to perform other operations);
- Persons designated to operate equipment receive adequate instruction, information and training;
- Inspection and maintenance records are kept until the next inspection is carried out;
- Suitable **Personal Protective Equipment** is provided if required (this should only be as a last resort after considering other control measures) to include special tools, protective clothing and gas detection devices and such equipment is maintained in good condition.

Further reference should be made to ***L22 Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance*** (Third edition), HSE Books, 2014 available for free download from HSE books on the HSE website.

## 11. Maintenance, Inspection, dangerous parts, marking, controls, isolation

The minimum standards for the protection of individuals from risks related to the use of work equipment are;

Clear health and safety information must be provided for those using work equipment, including, where necessary, written instructions on its use and suitable equipment markings and warnings. Suitable and sufficient training must be provided where specialist knowledge for safe use is required. Completion of this training must be recorded.

Work equipment must be provided with appropriately identified controls for starting, stopping and controlling the equipment and such control systems must be safe. Where appropriate, suitable means of isolating work equipment from all power sources (including electric, hydraulic, pneumatic and gravitational energy) must be provided and clearly marked.

Suitable measures to prevent access to dangerous parts of machinery must be provided in line with Regulation 11 of PUWER, which provides a clear hierarchy for guarding devices. It is important to note that the legal standard which applies here is 'so far as is practicable', which means the hierarchy must be adhered to where technically possible, regardless of cost.

The Department must take appropriate measures to ensure that Planned Preventive Maintenance is carried out on work equipment as identified in the instructions provided and in line with the risk assessments carried out, working with the Estates Department as and when necessary. Departments must ensure that maintenance operations on work equipment can be carried out safely while the equipment is shut down, without exposing people undertaking maintenance operations to risks to their health and safety. Additionally, an appropriate inspection programme must be developed at intervals determined by the risk assessment to be carried out by the user and/ or competent person.

## **12. Training**

Employers must ensure that all persons who use work equipment have received adequate training, including training in the methods which may be adopted when using work equipment, this also includes employees who supervise or manage the use of work equipment.

Information and instruction also needs to be provided for people who are on the premises with the employer's permission or by invitation, such as:

- Contractors;
- Suppliers;
- Representatives; • Service engineers, and
- Technicians.

## **13. Young people**

Young people are particularly vulnerable due to inexperience and lack of familiarity with the working environment. Employers must provide training and supervision to ensure that various levels of competence for safety and statements of competence should be developed. They should not be allowed to operate any machinery unless they have been trained and are supervised.

## 14. References

HSE Work Equipment & Machinery:

<https://www.hse.gov.uk/work-equipment-machinery/index.htm>

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998 L22 (Pub 2008) <https://www.hse.gov.uk/pubns/books/l22.htm>

Simple Guide to the Provision & use of Work Equipment (Pub 2009) <http://www.hse.gov.uk/pubns/indg291.pdf>

Buying new machinery (Pub 2007)

<http://www.hse.gov.uk/pubns/indg271.pdf>