


Safety Services Guidance



Guidance on:
The Provision and Use of Work Equipment Regulations 1998 (PUWER)

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| Key word(s) : | Work equipment. Using, maintaining and repairing. Information, instruction and supervision. Risk Assessment. Protective devices. Guarding |
| Target audience : | Heads of Schools / Institutes and Directorates. Managers. Workshop Supervisors. Principal Investigators |

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| Management cycle | Useful paragraphs |
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Introduction

1. The Provision and Use of Work Equipment Regulations 1998 require employers to ensure that equipment provided for use at work should not result in health and safety risks, regardless of its age, condition or origin.
2. Work equipment is broadly defined to include everything from a hand tool through to machines of all kinds. Use includes starting, stopping, repairing, modifying, maintaining, servicing and cleaning.
3. Therefore the University must to do all that is reasonably practical to ensure that work equipment owned and used on University premises and areas under university control is: -
 - Suitable for the intended use.
 - Safe for use, maintained in a safe condition and in certain circumstances, inspected to ensure this remains the case.
 - Used only by people who have received adequate information, instruction and training.
 - Accompanied by suitable safety measures eg protective devices, markings and warnings.

Responsibilities

4. Faculties, Schools and Directorates will: -
 - take into account the working conditions and risks in the workplace when selecting equipment.
 - make sure that work equipment is suitable for the use that will be made of it.
 - maintain work equipment so it does not present a risk to health and safety.
 - provide adequate information, instruction and training on when and how to use work equipment correctly.
 - purchase only equipment in accordance with the requirements of the Supply of Machinery (Safety) Regulations 2008.
 - provide protection from dangerous parts of machinery.
 - ensure maintenance operations are carried out safely.
 - provide protection to guards against specific hazards associated with work equipment.
 - ensure work equipment has appropriate controls and means of isolation.

- ensure that work equipment is stable and that suitable and sufficient lighting is provided.
- ensure that work equipment has appropriate clear, visible or audible warning devices, notices and markings.

5. Heads of School / Directorate will ensure that:

- the requirements of this guidance and other associated guidance are implemented and adhered to within their areas of responsibility.
- all equipment provided for use in areas under their control are safe and without risk to health and comply with the requirements of the relevant standard. In addition, that the equipment is maintained to the required standard.
- all risks arising from work equipment and its use are assessed and suitable control measures implemented. Also, to ensure that suitable information, instruction and training is given to users of work equipment.
- users of work equipment are competent to carry work using this equipment.

6. All users of work equipment must:

- use the equipment in accordance with safe working practices and with any information, instruction or training received. Maintenance to any work equipment must be carried out by suitably trained and competent person.

7. Workshop Supervisors and Principal Investigators are to:

- ensure that any task undertaken which involves work equipment under their control is done in a safe manner, following safe working practices and undertaken by competent persons.

Guidance

8. The guidance below will assist Schools/Directorates to implement the requirements of the Provision and Use of Work Equipment Regulations and the University's Health and Safety Policy.

9. What is work equipment?

The scope of work equipment is extremely wide and it covers almost any equipment used at work including: -

- Laboratory equipment such as centrifuges, fume cupboards.

- Fixed single machines such as drilling machines, circular saws, lathes
- Toolbox tools such as hammers.
- Lifting equipment such as hoists, lift trucks, elevated work platforms lifting slings.
- Office equipment such as photocopiers.
- Other equipment such as ladders, pressure water cleaners.

This is not an exhaustive list of items covered by the legislation.

10. Risks and Specific Risks

Many things can present a hazard and risk for example: -

- Using the wrong equipment for the task.
- Not fitting adequate guards on machines.
- Inadequate controls or the wrong type of controls that mean the equipment cannot be operated safely.
- Equipment that is not properly maintained including maintenance of safety devices, controls etc.
- Not providing the right information, instruction and training for those using the equipment.
- Not maintaining work equipment or carrying out regular inspections or examination of equipment.
- Not providing the personal protective equipment needed to use work equipment safely.

11. Identifying the risks

When identifying the risks associated with work equipment the following will need to be considered: -

- The work which has to be done with the equipment during normal use and also during setting up, maintenance, repair, breakdowns and removal of blockages.
- Who will use the equipment, including inexperienced users, new starters, and young people?
- Employers or users who may act foolishly or carelessly or are likely to make a mistake.

- Whether guards or safety devices are poorly designed and inconvenient to use or are easily defeated, the type of power supply, each type has different risks and different ways of controlling them.

12. Ways to Reduce the Risk

- Use the right equipment for the task.
- Make sure machinery / work equipment is safe.
- Guard dangerous parts of machinery by: -

Using fixed guards wherever possible.

If access is required to parts of them machine and a fixed guard is not possible an interlocked guard should be used for these parts. 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.

In some cases eg on guillotines, devices such as photoelectric systems or automatic guards may be used instead of fixed or interlocked guards.

Check that the guards are convenient to use and not easy to defeat otherwise they need to be modified.

The best material to use for guards will depend on the type of work the equipment is being used for.

Make sure the guards allow the machine to be cleaned and maintained safely

Where guard cannot give full protection, the use of jigs, holders, push sticks should be considered.

13. All guards and protection must: -

- Be suitable for the purpose for which they are intended.
- Be of good construction, sound material and adequate strength.
- Be maintained in an efficient state, in efficient working order an in good repair.
- Not give rise to any increased risk to health and safety.
- Not be easily bypassed or disabled.
- Be situated at a sufficient distance from the danger zone.
- Where necessary not unduly restrict the view of the operating cycle of the machinery.
- Be constructed so that they allow maintenance and part replacement to be carried out whilst restricting access to the specific work area if possible without having to dismantle the guard or protection device.

14. Selection of Suitable Work Equipment

Work equipment must be selected which is suitable by design, construction or adaptation for its intended purpose. By the selection of suitable work equipment for particular tasks and processes this makes it possible to reduce or eliminate many risks to the health and safety of people in the workplace. This process should be done in the form of a risk assessment and take into consideration such factors as: -

- Ergonomics
- How the equipment is to be used
- What it is to be used for
- Who will use the equipment

This applies also to situations where new equipment is being purchased.

Maintenance and Inspection

15. All work equipment used by Schools/Faculties/Directorates must be maintained in an efficient state, in efficient working order and in good repair. This will relate to how the equipment could affect the health and safety of users and others.

The frequency and complexity of maintenance should be determined by: -

- the complexity of the equipment.
- the risks to health and safety caused by malfunction or failure.
- the intensity of use.
- the operating environment.
- the variety of operations.

16. From this assessment a maintenance schedule for the equipment should be devised. It should be noted that although hand tools are simple in design and usually have few or no moving parts there is still a need to check and maintain as necessary.

17. Many accidents occur during maintenance work. Controlling the risk means following safe working practices and the following should be considered: -

- Where possible, carry out maintenance with the power to the equipment off and ideally disconnected or with the fuses or keys removed, particularly where access to dangerous parts will be needed.
- Isolate equipment and pipelines containing pressurised gas, steam or hazardous materials. Isolation valves should be locked off and the system depressurised when possible, particularly if access to dangerous parts will be needed.
- Support parts of equipment which could fall.
- Allow moving equipment to come to a complete stop.
- Allow components which operate at high temperature to cool.
- Switch off engines of mobile equipment, put the gearbox in neutral, apply the brake and where necessary chock the wheels.
- To prevent fire and explosions, thoroughly clean vessels that have contained flammable solids, liquids, gases or dusts and check them before hot work is carried out. In some cases, it will be necessary to fill them with water or inert gas before use. Even small amounts of flammable materials can give off enough vapour to create an explosive air mixture which could be ignited by a hand lamp or cutting / welding torch.
- Where maintenance work has to be carried out at height, confined spaces or other hazardous areas ensure that a safe and secure means of access is provided which is suitable for the nature, duration and frequency of the task. Also, that the relevant permits to work are completed and complied with.

18. A competent person should carry out inspections of work equipment at regular intervals to make sure the equipment is safe to operate. Frequency will be dependent on issues highlighted above for the maintenance of the equipment.

19. Records of inspections must be kept and the following items considered: -

- Make sure the guards and other safety devices are routinely checked and kept in working order. They should also be checked after any repairs or modifications.
- Check what the manufacturer's instructions say about maintenance to ensure it is carried out where necessary and to the correct standards.
- Routine daily and weekly checks may be necessary.
- Lifting equipment, pressure systems and power presses should be thoroughly examined by a competent person at regular intervals specified in law or according to an examination scheme drawn up by a competent person.

Further Information

Safe Use of Work Equipment: Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and Guidance. [L22](#) (4th Edition), HSE Books, ISBN 0 7176 1626 6

| Document control box | |
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| Guidance title: | Guidance on the Provision and Use of Work Equipment Regulations 1998 (PUWER) |
| Date approved | Issued by the Safety Services Mar 2013 |
| Version: | 1.4 (June 2016) |
| Previous review dates: | V1.3 (November 2016) v1.2 (March 2013) v1.1 (January 2009) v1.0 (June 2005) |
| Next review date: | Upon significant change |
| Related Policies: | Health & Safety Policy |
| Related Procedures | |
| Related Guidance: | A-Z of documents on specific health & safety topics, at http://www.healthandsafety.manchester.ac.uk/topic_a-z/ |
| Related information: | |
| Policy owner: | Head of Safety Services |
| Lead contact: | Safety Services |