

## **CARDIFF COUNCIL**

### **CODE OF GUIDANCE**

#### **PROVISION AND USE OF WORK EQUIPMENT REGULATIONS (PUWER) 1998**

##### **Purpose**

This Code of Guidance provides information about the legal requirements of the Provision and Use of Work Equipment Regulations 1998 (PUWER). It addresses the following:

- 1:0 Introduction
- 2:0 Suitability of work equipment
- 3:0 Maintenance
- 4:0 Inspection
- 5:0 Specific risks
- 6:0 Information and instructions
- 7:0 Training
- 8:0 Dangerous parts of machinery
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- 10:0 High and very low temperatures
- 11:0 Starting controls
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- 18:0 Lighting
- 19:0 Maintenance operations
- 20:0 Markings and warnings
- 21:0 Mobile work equipment and power presses

##### **1:0 Introduction**

This guidance provides information about the legal requirements of the provision and use of work equipment. It gives a general indication of some of the main requirements of the Regulations. However it is important that it is read in conjunction with the Regulations and Approved Code of Practice.

The main legislative requirements relating to the provision and use of equipment in the workplace can be found in the Provision and Use of Work Equipment Regulations (PUWER) 1998. The Regulations require risks to health and safety from equipment used at work to be prevented or controlled.

Work equipment is defined as ‘any machinery, appliance, apparatus, tool or installation for use at work (whether exclusively or not)’.

The definition is very broad and covers a wide range of equipment and includes manually and power operated equipment. Examples of work equipment are air compressors, computers, fork lift trucks, ladders, portable drills, drill bits, knives, photocopiers and hand tools. Motor vehicles which are not privately owned are also classed as work equipment, however when driven on public highway the more specific road traffic legislation takes precedence over PUWER.

Work equipment is “in use” where there is any activity involving work equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning.

Any new item of work equipment should bear a ‘CE’ mark to indicate that it conforms to the relevant safety standards for the supply of machinery. There is no need to replace old work equipment that does not bear the ‘CE’ mark so long as it meets the requirements of the legislation. A ‘CE’ mark is not a guarantee of conformity with PUWER.

The Regulations impose obligations on every employer in respect of work equipment provided for use by an employee at work, self employed persons and persons who have control to any extent of work equipment (but only to the extent of that control).

The main provisions of the Regulations are as follows:

## **2:0 Suitability of work equipment**

When selecting work equipment, regard must be had to the working conditions and risks which exist in the premises or area in which the equipment is to be used, and any additional risk posed by the use of the equipment. Work equipment must be used only for operations for which, and under conditions for which, it is suitable.

Work equipment must be suitable for:

- (i) the work it has been provided to do
- (ii) the way in which it is intended to be used
- (iii) the environment in which it is to be used

Risk assessment required by the Management of Health and Safety at Work Regulations 1999 will help in the selection of work equipment and assessing its suitability for particular tasks. Risk assessment should be carried out prior to purchasing equipment.

### **3:0 Maintenance**

Work equipment must be maintained in an efficient state, in efficient working order and in good repair.

Where equipment has a maintenance log, the log must be kept up to date. Where a log is not available the maintenance must be recorded by other suitable means.

Maintenance should only be carried out by competent persons.

### **4:0 Inspection**

Inspection means a visual or more rigorous inspection by a competent person and may include testing if appropriate. The purpose of an inspection is to identify whether any equipment can be operated, adjusted and maintained safely, and that any deterioration can be detected and remedied.

Where the safety of work equipment depends on the installation conditions it must be inspected:

- (i) before being put into service for the first time
- (ii) or after assembly at a new site or location

in order to ensure that the equipment has been correctly installed and is safe to operate.

If work equipment is exposed to conditions causing deterioration which is liable to result in dangerous situations, it must be inspected at suitable intervals, to ensure that health and safety is maintained and any deterioration is detected and remedied in good time.

Records of inspections must be kept.

### **5:0 Specific risks**

Where there is a specific risk to health and safety e.g. injury from moving parts of machinery, the use of the work equipment must be restricted to the persons specifically given the task of using the work equipment. Repair, modifications, maintenance or servicing must be carried out by specifically designated persons. All such persons must have adequate training and there must be a record kept of the training (including refresher training if appropriate).

## **6:0 Information and instructions**

All persons who use work equipment, or who supervise or manage its use, must have available to them adequate health and safety information, operating instructions and where appropriate, written instructions on its use. This information includes:

- (i) conditions and methods of use
- (ii) any foreseeable abnormal situations likely to occur and how to deal with them
- (iii) any conclusions drawn from the previous uses and experiences of using the same or similar work equipment
- (iv) any limitations on use

Any information or instructions must be comprehensible to all employees and a record kept that persons have received it.

## **7:0 Training**

All persons who use, supervise or manage the use of work equipment must have received adequate training. The training will include:

- (i) the methods of work involved
- (ii) the risks involved
- (iii) any precautions or controls found to be necessary to reduce risk to health and safety

The requirements for training depend on the job and equipment, special attention should be paid to the needs of young persons. Records must be kept of any training given (including refresher training).

## **8:0 Dangerous parts of machinery**

Effective measures must be taken to prevent access to dangerous parts of machinery or to stop the movement of any dangerous part of machinery before a person enters the danger zone. The hierarchy of effective measures are:

- (i) fixed enclosure guards (most effective)
- (ii) other guards or protection devices (e.g. interlocks, light guards, pressure mats, or distance of guards)
- (iii) protection appliances (e.g. jigs, holders, push sticks, etc)
- (iv) information, instruction, training and supervision

Guards and protection devices must:

- (i) be suitable for the purpose

- (ii) be of good construction, sound material and adequate strength
- (iii) be maintained in an efficient state, efficient working order and good repair
- (iv) not increase health and safety risks
- (v) not be easily disabled or by-passed
- (vi) be at a sufficient distance from the danger zone
- (vii) not unduly restrict the view of the operating cycle in such instances where a view is necessary
- (viii) be constructed so replacement and maintenance work can be carried out without dismantling the guard or device

Risk assessment will determine the risk reduction measures needed.

### **9:0 Protection against specified hazards**

Where certain specified hazards are likely to occur, measures must be taken to prevent exposure to the hazards or adequately control them, by measures other than the use of personal protective equipment, as well as minimising the effect of the hazard and reducing the likelihood of it occurring.

The specified hazards are:

- articles or substances falling or being ejected from work equipment
- rupture or disintegration of parts of work equipment
- work catching fire or overheating
- unintended or premature discharge of any article or substance, produced, or used or stored in the work equipment
- unintended or premature explosion of work equipment or any article or substance produced, used or stored in it

Note: This requirement does not apply when certain other Regulations apply, e.g. Control of Substances Hazardous to Health Regulations 1999.

### **10:0 High and very low temperatures**

Where there is a very high or very low temperature e.g. a flat-iron, gas cooker, cold store, steam pipes etc, and employees have to work close to the equipment, protection must be given to prevent burns, scalds or sears. Engineering methods, e.g. warning signals or alarms, should be used before the use of personal protective equipment.

### **11:0 Starting controls**

Controls which require a deliberate action (except normal cycles of automatic advances) shall be provided for:

- (i) starting working equipment
- (ii) controlling changes in speed, pressure etc or where the change increases risk to health and safety

It should not be possible to start or change speed except by a deliberate action and controls should be designed and positioned to prevent inadvertent or accidental operation.

## **12:0 Stop controls**

Where appropriate, work equipment must be provided with one or more readily accessible controls in order to bring the equipment to “a safe condition in a safe manner”. This shall switch off all sources of energy after stopping the work equipment.

Stop controls must take priority over other controls.

## **13:0 Emergency stop controls**

Work equipment must be provided with readily assessable emergency stop controls, unless this is not necessary due to the nature of the hazard, and the time taken to come to a complete stop using other controls e.g. the stop controls mentioned in para 12.

Examples of emergency stop controls include mushroom headed buttons, antennas, bars and kick plates.

## **14:0 Controls**

All controls for work equipment must be clearly visible and identifiable, and sited so that operators are not put at risk.

The control operator must be able to ensure from the position of control that no one is in a danger zone before the equipment is started. Where this is not reasonably practicable a safe system of work must be such as a banksman and where this is not reasonably practicable an audible or visual warning can be used.

Any person who would be exposed to a risk as a result of stopping or starting work equipment must have sufficient time and means to avoid the risk.

## **15:0 Control system**

A control system is a system or device which responds to input signals and generates an output signal which causes equipment to operate in a particular manner.

Input signals occur from:

- (i) manual controls, levers, buttons, pedals etc
- (ii) automatic sensors/protection devices/speed limits

Control systems should be safe and any fault or damage must not create additional risks. Control systems must not impede the operation of any stop or emergency control.

## **16:0 Isolation from energy sources**

Where appropriate, work equipment must be provided with suitable means of isolating it from its sources of energy. (This will be necessary prior to cleaning or maintenance).

The means of isolation must be clearly identifiable and readily accessible.

The isolation must prevent inadvertent re-connection to the energy source

Reconnection to the energy source must not put anyone at risk.

## **17:0 Stability**

Work equipment which is inherently unstable or could become unstable during use must be stabilised, where necessary for health and safety. For machines used in a fixed position this can be achieved by bolting them to the floor or a bench. Mobile work equipment such as cranes, mobile platforms or excavators may require outriggers or similar devices to ensure that the equipment is always used within the limits of its stability at any given time.

## **18:0 Lighting**

Any place where a person uses work equipment must be suitably and sufficiently lit. If the ambient lighting is not sufficient, local lighting will need to be supplied.

## **19:0 Maintenance operations**

Work equipment must be constructed or adapted so that, as far as is reasonably practical, maintenance operations can be carried out while the equipment is shut down, or otherwise carried out without exposing persons to risk.

Appropriate measures must be taken to protect persons carrying out maintenance work if the equipment will need to be running during maintenance i.e. temporary guards, slower speeds, permit to work or remote control.

## **20:0 Markings and warnings**

Where appropriate all work equipment must carry clearly visible markings, such as start, stop controls, maximum speed, safe working load, etc. The markings may be words, letters, symbols or numbers. Employees must understand what the markings mean, and this will require the provision of appropriate information and training.

Where appropriate, work equipment must incorporate warnings (words or graphical signs) or warning devices (reversing alarms or radar, cameras on vehicles). These are often used where risks to health and safety remain despite the use of hardware measures. Warning devices must be unambiguous, easily perceived and understood.

## **21:0 Mobile work equipment and power presses**

In addition to these general requirements detailed above which apply to all work equipment, Part III of PUWER contains specific duties regarding mobile work equipment e.g. fork-lift trucks and dumper trucks.

Where mobile work equipment is used for carrying people it must be suitable for this purpose. Measures should be taken to reduce the risks e.g. from it rolling over, to the safety of the people being carried, the operator and anyone else.

### **Further information:**

Provision and Use of Work Equipment Regulations 1998 and associated  
Approved Code of Practice and Guidance Notes  
The Health & Safety at Work Act 1974  
Management of Health and Safety at Work Regulations 1999  
Lifting Operations and Lifting Equipment Regulations 1998  
The Construction ( Health, Safety and Welfare) Regulations 1996