

POLICY FOR HEALTH AND SAFETY

PART C ARRANGEMENTS

SECTION 20

WORK AND LIFTING EQUIPMENT

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1.0 INTRODUCTION

1.1 Legislation

The Provision and Use of Work Equipment Regulations (PUWER) and the Lifting Operations and Lifting Equipment Regulations (LOLER) as amended by the Health and Safety (Miscellaneous Amendments) Regulations provide a legal framework for ensuring that work and lifting equipment is selected, installed, used, examined, inspected and maintained safely. This Arrangement aims to interpret relevant legislation and establish clear standards to be adopted by the Council and its staff.

1.2 Definitions

Work Equipment – means any machinery, appliance, apparatus or tool and any assembly of components that function as a whole (see appendices A and B for new and existing requirements and Appendix C for examples).

Lifting Equipment - means any lifting equipment used to lift either passengers or any other loads where the principle function of such equipment is lifting (see appendices A and B for new and existing requirements and Appendix C for examples).

Machinery – means equipment combining action of several parts to apply mechanical force.

Use/User – means any activity involving, or persons using, Work Equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, servicing and cleaning.

1.3 Responsibility

Directors are to ensure that procedures exist for implementing and complying with this policy

1.4 Examples of equipment

The Regulations cover a wide range of equipment and apply to all services; some examples are: -

- Schools – D&T machinery, laboratory equipment, cooking equipment, etc.
- Social Care – hoists, cooking equipment, tail-lifts, etc.
- Environmental & Transport – maintenance equipment, bin-hoists, etc.
- Office work – Photocopiers, shredders, servers, guillotines, etc

2.0 SUITABILITY OF WORK EQUIPMENT

2.1 Selection

Managers must consider its suitability for the task, taking into account:

- (i) its initial integrity;
- (ii) the place it will be used;
- (iii) the purpose for which it can be used;
- (iv) the knowledge and skill required to operate the machine; and
- (v) maintenance requirements.

Risk assessments carried out by service management under the provisions of part C section 1 to the Corporate Health and Safety Policy (Management of Health and Safety) will assist in the selection of equipment, its suitability for particular tasks and its ease of maintenance.

2.2 New Equipment

Managers must only purchase, hire or lease equipment which carries the CE mark. The equipment should only be used as directed by manufacturer's instructions and any local procedures for the safe use of equipment **must** be followed. To ensure that equipment meets this standard it is recommended Service managers request a copy of the EC Declaration of Conformity from the manufacturer or supplier.

2.3 Older Equipment

Existing equipment purchased, hired or leased before 1 January 1993 that was well chosen, met the appropriate British or European Standard at that time and which has been properly maintained should meet most of the requirements of the regulations.

Equipment which did not meet previous relevant standards is likely to need upgrading so that the equipment complies fully with the regulations. This equipment should be identified during the Risk Assessment process.

2.4 Location

Although the integrity of equipment may be sound, managers must take into account the location in which the equipment will be used, e.g. wet environments, flammable or explosive atmosphere, etc, and must select equipment which can be safely used in these environments. Risk assessments carried out by service managers should assist in identifying suitable equipment and take into account other issues such as: -

- (i) safe access and egress to and from the equipment
- (ii) falling from height
- (iii) slips, trips and falls
- (iv) falling objects, and
- (v) the surface on which the equipment is to be placed.

2.5 Process and Use

Equipment that is selected for a particular process/task must be suitable, e.g.

- a fork lift truck must have the load capacity for the weights lifted,
- scissors and other cutting tools should be used for cutting rather than knives which pose a higher risk, etc.

Managers must ensure when selecting equipment for a particular process that it is the safest method for carrying out that process.

2.6 Employees' Equipment

Services which allow staff to bring their own equipment to work must undertake a risk assessment which identifies the checks to be made before the equipment is used. Any equipment remaining on site for more than three months is to be treated in the same way as the Council's own equipment.

2.7 Lifting Equipment

All lifting equipment must be clearly and visibly marked with its Safe Working Loads (SWL). The SWL is a value or set of values based on the strength and/or stability of the equipment when lifting.

Some lifting equipment will have various SWLs due to its nature. For example a crane may have a SWL for its main operation and a separate SWL for a jib that can be raised or lowered. All SWLs must be clearly marked on the individual part.

Where alteration/adaptation of lifting equipment may affect its SWL then a load-limiting device must be fitted to prevent the equipment exceeding its SWL.

Service risk assessments will identify where SWLs may be exceeded and the type of load-limiting devices to be fitted.

In addition to the above, service management must ensure that Lifting Equipment: -

- (i) is sufficiently strong and stable, taking into account its use
- (ii) prevents falling, crushing or trapping and is designed so that people trapped are not exposed to danger and can be freed, and
- (iii) equipment used for lifting people must clearly display the maximum numbers of persons to be carried.

3.0 MAINTENANCE OF EQUIPMENT

3.1 General Duty

Services must ensure equipment is maintained so that any deterioration in performance does not put anyone at risk.

The extent and complexity of maintenance will vary from simple checks on handtools to integrated programmes for complex plant. Regular maintenance on parts such as guards, ventilation equipment, emergency shutdown systems and pressure relief devices are essential to ensure user safety.

The risk assessment must identify equipment that requires frequent (before use, daily, monthly, etc) checks to ensure that safety related features such as guards are functioning correctly.

Maintenance work must be carried out by designated “competent people”, i.e. those who have received adequate information, instruction and training related to that work equipment, and are aware of the way in which it is used.

3.2 Thorough Examination and Inspection (Lifting Equipment)

Services must ensure that, following assembly, reassembly and before being put into service, lifting equipment is thoroughly examined for defects unless:

- (i) It has NEVER been used before, and/or
- (ii) It has an EC declaration of conformity issued no longer than 12 months before it is used.

Thorough examinations must be carried out: -

- (i) for equipment carrying people – every 6 months and**
- (ii) all other lifting equipment – every 12 months**

Services must ensure that a “Competent Person”, normally the Council’s Insurers, carries out these examinations. The examination report must be put in writing and forwarded to the appropriate manager, as soon as is practical, following the examination. Services must keep records of examinations, for a minimum of two years

Where defects are found, during these examinations, that have potential or actual dangers, the competent person must be instructed to report these to the service area manager. The manager must implement adequate remedial/control measures.

Where there is a serious or imminent risk of serious personal injury, the competent person carrying out the inspection must send a copy of the report to the Health and Safety Executive, as soon as is practicable, following the discovery.

3.3 Routine Maintenance

Services must ensure that any periodic lubrication, inspection and testing recommended by the manufacturer is carried out, also taking into account any legal requirements related to equipment such as hoists, scaffolds, etc. Services must also take into account equipment that operates in arduous conditions where more frequent maintenance may be required (see 5.4).

Equipment in which components have failed, or are likely to fail, before the next periodic inspection must be repaired or replaced, and the equipment taken out of use if safety cannot be assured.

3.4 Planned Preventative Maintenance

Where the frequency of routine maintenance could be inadequate to prevent the equipment, guards or other protective device from failing in a dangerous way, Services must establish a formal system of Planned Preventative

Maintenance, the aim of which is to prevent failure while the equipment is in use.

Formal systems must be written and state the extent and date of inspection, testing and replacement or refurbishment of components or equipment. These instructions may be based on manufacturers' recommendations or previous service and condition monitoring.

3.5 Maintenance Log and Maintenance Operations

Where equipment has a log it must be updated. Where there is no log it is recommended that Services keep a record of maintenance, showing dates of any checks and maintenance, defects found and remedial work carried out. Where practicable, maintenance logs/records should be reviewed periodically to ensure the effectiveness of maintenance procedures.

Maintenance work carried out on machinery properly shut down, and carried out in accordance with manufacturers' instructions, should carry no significant risk of injury.

If equipment has to be running whilst a maintenance operation is carried out then measures must be taken to reduce the risk. Measures could include:-

- (i) providing temporary guards;
- (ii) limited movement controls;
- (iii) crawl speed operated by hold-to-run controls;
- (iv) provision of suitable personal protective equipment (PPE).

In cases of high risk, the use of a strict permit to work system will be necessary.

4.0 SPECIFIC RISKS

4.1 Use of Equipment

Managers must ensure that where equipment is likely to involve a specific risk to health and safety, use of this equipment is restricted to authorised staff. To be authorised, staff must have received training on the risks associated with the equipment and possess the necessary skills for dealing with routine and non-routine equipment operation. Records of the training must be available.

4.2 Planning

Services must ensure that all operations involving the use of equipment are properly planned to ensure that risks are minimised

4.3 Maintenance of Equipment

Where repairs, maintenance or servicing of this equipment is required, managers must ensure that the work is restricted to competent and designated personnel.

Risk Assessments carried out by service managers must take into account the dangers of maintaining equipment. These assessments should consider items such as space, isolation of equipment, unauthorised access, weather conditions and any other hazard identified.

4.4 Environment

Services must ensure that environmental factors are taken into account before equipment is used, including: -

- (i) visibility
- (ii) weather conditions
- (iii) space, including head room
- (iv) overhead power lines
- (v) trench work and excavations, low bridges
- (vi) racking and shelving
- (vii) underground services, etc.

Risk assessments should help service managers identify these risks and control measures must be introduced to eliminate or reduce those risks.

5.0 INFORMATION AND INSTRUCTIONS

Managers must ensure that users of equipment, and anyone who supervises or manages the use of equipment, are provided with adequate information and instructions on the use of the equipment.

The information can be either in writing or verbally presented, depending on the risks involved and the complexity of the information. In deciding the nature of the information, Managers should take into account the user's skill, experience and training, the degree of supervision and the complexity and length of the job.

Written instructions should include relevant information provided by manufacturers and suppliers, such as contained in operating manuals, instruction placards, warning labels and training manuals. Manufacturers and suppliers are obliged to supply this information to ensure the safe installation, operation and maintenance of the equipment.

Managers must ensure that these instructions are made available to all users of work equipment and that they are followed. The information must also be made readily available to supervisors and managers of users.

The information and instructions must be readily comprehensible, presented clearly in whichever language is necessary and be in a logical sequence. Where appropriate standard symbols should be used. Managers must also take into account users' level of training, experience, knowledge and any disability which may impede receipt of this information when deciding on the method of presentation.

The information must include as a minimum:

- (i) the conditions in which, and the methods by which, the equipment may be used;
- (ii) foreseeable, abnormal situations and the action to be taken if such a situation were to occur;
- (iii) any conclusions to be drawn from previous use of the equipment;
- (iv) basic information about the equipment to enable users to carry out pre-use checks in identifying any faults.

6.0 TRAINING

6.1 Management Responsibilities

Arrangements must be made to ensure that all users of equipment, and staff who supervise or manage users, receive adequate health and safety training.

The type and degree of training will depend on the equipment being used, the competence of staff, risk assessments, etc. Managers should refer to Section 2 of the Corporate Health and Safety Policy (Health and Safety Training) which gives more detailed guidance on the provision of health and safety training, including Induction.

Where other legislation requires specific training in the use of Work or Lifting Equipment, service managers must identify when this training is required and make arrangements for its provision.

6.2 Young Persons

Services must, when identifying training needs, take special account of young persons (under 18 years old) using equipment. The use of certain equipment by young persons, such as woodworking machines, is still controlled by legislation and Services must take this into account when identifying training needs.

More information on Health and Safety of Young Persons is contained in Part C, Section 1 – Management of Health and Safety and Part C, Section 21 – Young Persons.

7.0 MACHINERY

7.1 Dangerous Parts

Managers must take adequate measures to protect anyone using or maintaining machinery from dangerous parts.

Risk assessments should assess the risk from dangerous parts. The assessment must, in particular, look at:-

- (i) contact with moving parts (blades, sharp parts, etc);
- (ii) entrapment (presses, shutters, etc);
- (iii) entanglement (rotating shafts, belts, cogs, etc);
- (iv) ejection of parts or materials (abrasive wheels, cogs, swarf, etc).

Where the risk assessment identifies any of the above risks, protection measures must be taken. Where practicable, access to any dangerous part or rotating stock must be prevented by the use of fixed guards. Other protective measures include: -

- (i) other guards or protective devices (interlocking guards, trip devices, etc);
- (ii) protection appliances (jigs, holders, push sticks, etc)
- (iii) stopping movement of dangerous parts before any person enters a danger area;
- (iv) providing information, instruction, training and supervision on the use of machinery and any dangers in its use.

Managers must ensure that all guards and protective devices are suitable, of sound construction, properly maintained and do not increase the overall risk to health and safety. They must also ensure that they are not easily bypassed, and that they keep people away from zones in or around the machine where a person is exposed to risk. These measures must enhance safe working but still allow proper maintenance, servicing or repair.

7.2 Non-Mechanical Hazards

Managers must ensure that the risk assessments carried out under this arrangement also consider dangers associated with specific risks. These include:-

- (i) falling objects (e.g. due to machine vibration);
- (ii) articles or substances being ejected (e.g. broken grinding wheels, etc);
- (iii) fracture of work equipment (e.g. by machine jamming, etc);
- (iv) overheating/fire (e.g. by failure of lubrication, etc);
- (v) inadvertent release of vapour gas, dust or liquid (e.g. by valve failure, etc);
- (vi) explosion (e.g. by release of dust, etc);
- (vii) extremes of temperature (e.g. high or low).

- (viii) Failure to wear suitable PPE and maintain it in good condition.

Identified specific hazards are to be eliminated and where this is not reasonably practicable, control measures introduced.

7.3 Machine Controls

Where machinery may generate a risk, and in normal circumstances is powered by means other than human effort, then Managers must ensure an adequate provision of controls. These controls must be chosen taking into account the type of faults, failures and constraints foreseeable for that type of equipment and its use.

Controls are necessary for:-

- (i) starting and stopping machines;
- (ii) changing operation;
- (iii) regulating speed;
- (iv) emergency stop.

The main purpose of these controls is to ensure that machines are made safer under particular circumstances, such as when maintenance is to be carried out, when an unsafe condition develops, or where a temporary adverse environmental condition renders the equipment unsafe.

Service Managers must ensure that these controls are: -

- (i) safe to use;
- (ii) accessible;
- (iii) clearly marked and identified

An emergency stop should be provided at every control point so that action can be quickly taken. In addition to this, controls must not be placed in a position where they would create an additional risk.

A failsafe condition should be automatic, and equipment should have a means of isolation from its power source to ensure machines cannot be inadvertently started while maintenance is being carried out.

Examples of machine controls and guards can be found in the HSC's guidance on the Provision and Use of Work Equipment Regulations 1998.

7.4 Equipment Stability

Where work equipment might collapse, fall over, "walk" or overturn then service managers must ensure the equipment is suitably stabilised.

The methods for stabilising equipment could include:-

- (i) bolting equipment to the floor or the use of specially designed friction pads;

- (ii) fastening or clamping to a suitable foundation or supporting structure;
- (iii) lashing or tying to a supporting structure or platform (ladders, scaffolds, etc).

Managers must also ensure that equipment subjected to exceptional conditions, such as scaffolds exposed to adverse weather conditions such as high winds, are adequately secured.

8.0 LIGHTING

Managers must ensure that equipment is suitably and sufficiently lit. Natural light may not always be adequate so artificial lighting must be provided. This may be in the general work area or local lighting at the equipment. Consideration must be given to the amount of light needed, the location of the light source, the direction and intensity of the light and the avoidance of dazzle or glare. Also, with fast moving equipment the lighting must be suitable to avoid a strobe effect.

9.0 MARKINGS AND WARNINGS

Service managers must ensure that equipment is clearly marked to indicate:

- (i) stop and start controls;
- (ii) rotational speeds;
- (iv) safe working loads;
- (v) maximum pressures;
- (v) temperature limits;
- (vi) container capacities;
- (vii) substances;
- (viii) Personal Protective Equipment required whilst operating the equipment.

Where there are nationally or internationally recognised markings related to specific hazards, such as lasers, these should be used. All markings must, where possible, conform to published standards such as the Health and Safety (Safety Signs and Signals) Regulations or appropriate British or European Standards.

Where Services identify the need for warnings or warning devices these must be provided in the most appropriate form. These may be printed signs attached to equipment, devices such as audible alarms or visual warnings such as fault lights, etc. Any devices used, such as warning lights, must be designed in such a way as to require immediate action should they fail. An

example of this would be lights being on during normal operation and going out when a problem occurs. They must also give advice such as instructions to wear Personal Protective Equipment (PPE) or age restrictions, etc.

Equipment warning devices must be easily perceived and understood and must be distinguishable from other warning alarms or indicators.

Risk assessments should provide guidance as to the type of warning notices/devices required and guidance can also be obtained from manufacturers' data.

Any warning system or device should be devised or selected to prevent accident or injury by giving advance warning of equipment malfunction.

10.0 LOANED EQUIPMENT

Equipment loaned out by Services to the public, for example by Occupational Therapists to disabled service users, is not covered by either PUWER or LOLER where it is used and operated ONLY by clients in domestic premises. However the HSWA requires us to ensure that equipment provided for "others" to use must be safe and free from risk. This, in practice, means that Services must ensure that they do all that is reasonably practicable to protect the user. By complying with this arrangement Services will meet that duty. Where Council staff uses the equipment then the requirements of the regulations do apply.

Where Council staff use equipment purchased by clients in domestic premises, Services have no control over its installation or maintenance. In these circumstances managers must ensure that staff receive sufficient instruction and training as to its use, how to identify hazards and any protective measures introduced.

Services must ensure that risk assessments are carried out on all work equipment, whether used in domestic premises or not, and introduce sufficient measures to protect staff and "others" from danger.

11.0 ADDITIONAL INFORMATION

Further information on work and lifting equipment can be obtained from the following sources:

Barnets Safety, health and Wellbeing team, for general information, Phone: 020 8359 7955

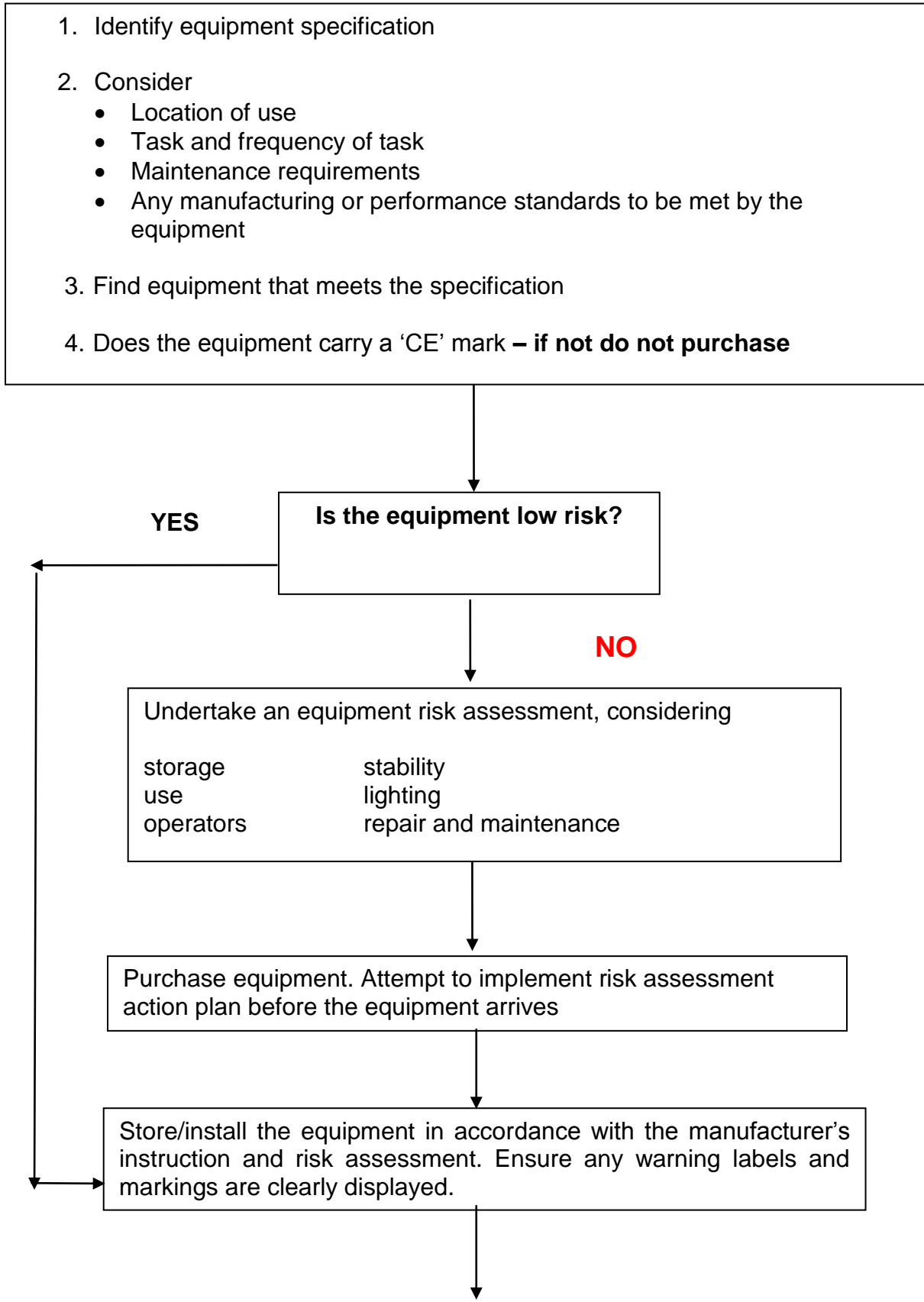
For general information about health and safety issues **The Health and safety Executive (HSE)**

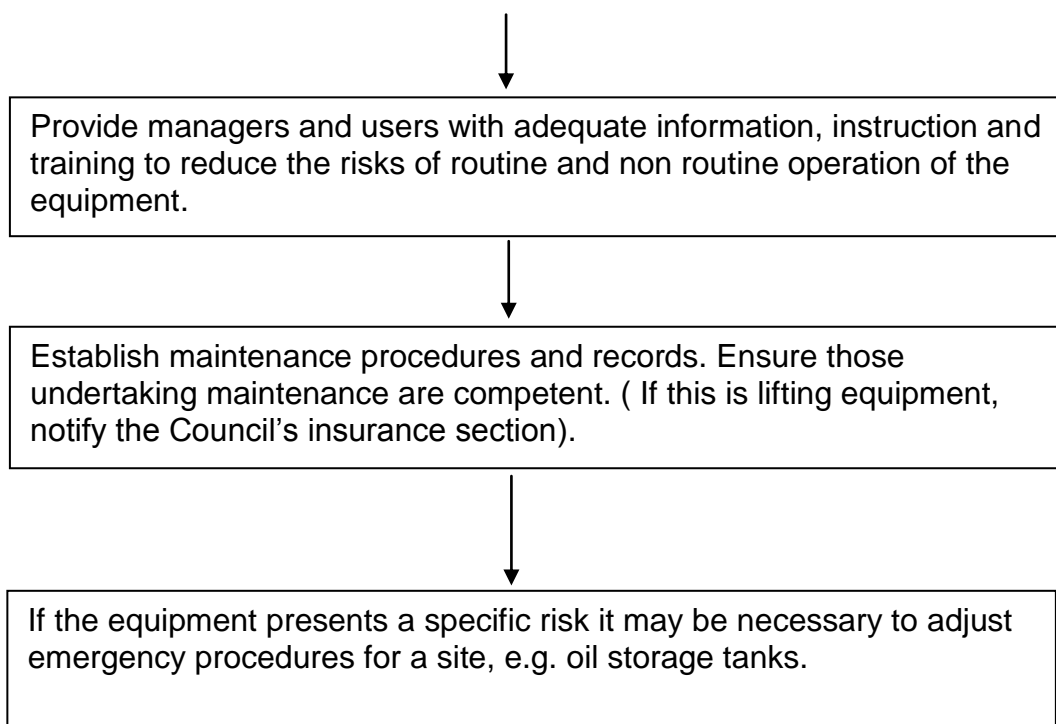
Website: www.hse.gov.uk

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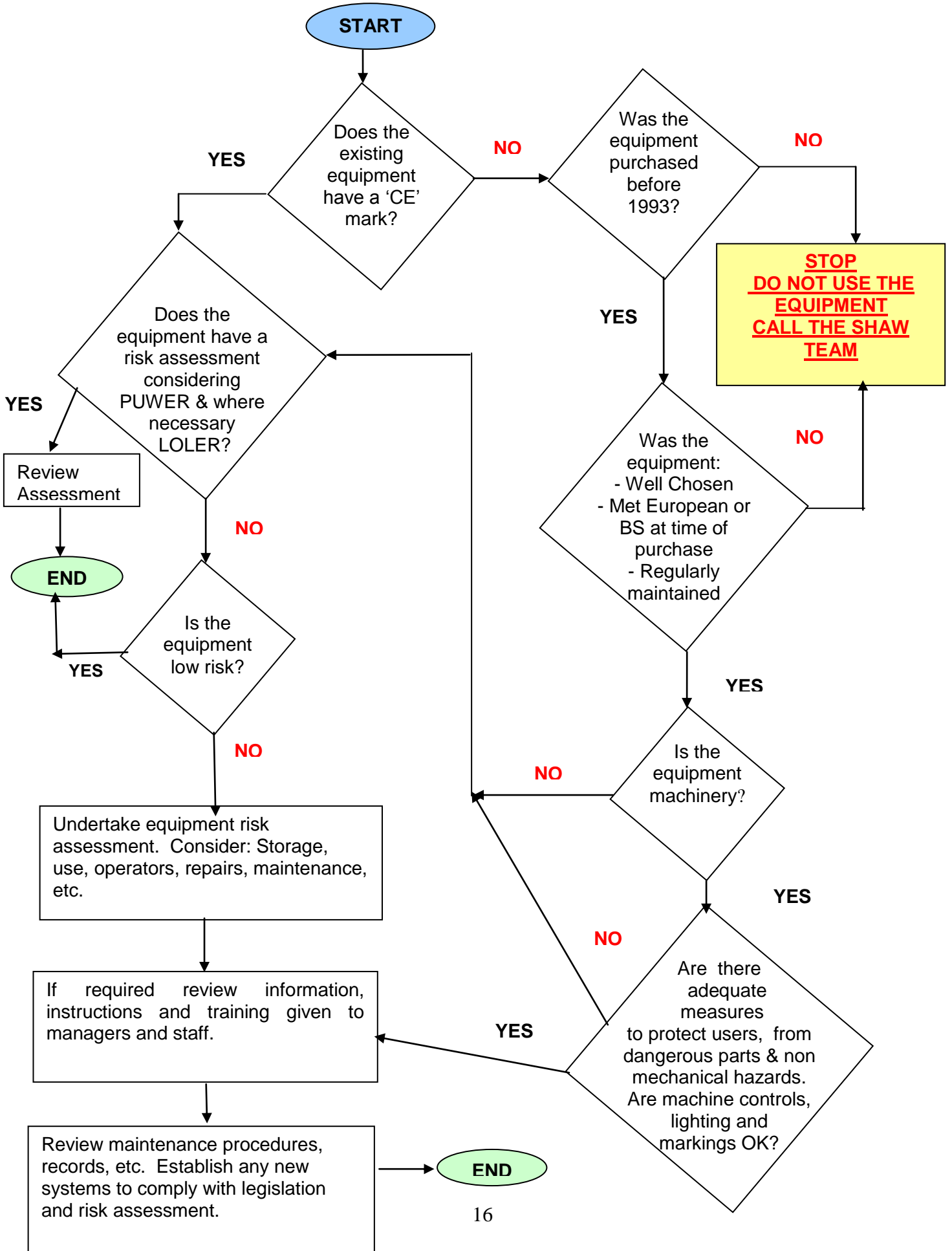
SUMMARY OF NEW EQUIPMENT REQUIREMENTS

PURCHASING NEW EQUIPMENT





SUMMARY OF EXISTING EQUIPMENT REQUIREMENTS



EXAMPLES OF WORK EQUIPMENT (NON-EXHAUSTIVE)

| | |
|----------------------|-----------------|
| Air Compressor | Scissors |
| Lawn Mower | Pressure Vessel |
| Computer | Installed Plant |
| Tractor | Scaffolding |
| Overhead Projector | Hand Saw |
| Ladder | Hammer |
| Trench Sheets | Drill Bit |
| Laboratory Equipment | |
| Resuscitator | |
| Kettle | |
| Photoelectric Device | |
| Portable Drill | |
| Soldering Iron | |

EXAMPLES OF LIFTING EQUIPMENT (NON-EXHAUSTIVE)

| LIFTING EQUIPMENT | PASSENGER LIFTING EQUIPMENT |
|--|--|
| Rope & Pulley on a Building Site | Passenger Lift |
| Dumb waiter | Manual and Electric mobile hoists |
| Vacuum Lifting Crane | Overhead Hoists |
| Vehicle Inspection Hoist | Ropes used for climbing |
| Scissors Lift | Slings |
| Ropes used for work positioning | Bath Lifts |
| Automated storage and retrieval systems | Bath and Integral Seats |
| Front end loader on a Tractor | Mangar Boosters |
| Loader crane fitted to a lorry | Stair Climbers |
| Refuse Vehicle loading arm | Stair Lifts |
| Any other equipment or part of equipment where its substantial role is the lifting of loads. | Any other equipment or part of equipment where its substantial role is the lifting of people |