

DevonPathways



COMPANY HEALTH, SAFETY & ENVIRONMENTAL MANAGEMENT SYSTEM

Approved by: Chris Kenny **Date:** 13/09/2022

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Introduction:

This document sets out the company's policies and procedures for the management of health & safety for the protection of our employees enabling them to undertake their duties without risks to their health or safety.

The company is respectful of the need to act responsibly regarding any impact our operations may have on the environments within which we work.

These policies and procedures provide for a simpler and more effective approach to legal compliance by concentrating solely on the elements that effect our daily operations. By implementing some simple management arrangements, we believe we can demonstrate our ability to effectively manage health and safety.

As the law permits, these arrangements are appropriate to the size and complexity of our business and for the risks facing our employees and others who may be affected by what they do.

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1.0 General Statement of Policy, Duties & Responsibilities

1.1 Policy Statement of Intent:

The ongoing success of the company is founded on our concern for our employees' wellbeing.

Our commitment to effective health, safety and environmental management is designed to keep our employees, and others who may be affected by our operations, safe and without risk to their health.

In support of these aims, our employees are required to fulfil their legal duty to take reasonable care of themselves and others who they encounter whilst undertaking their carer duties.

To achieve these goals, we are committed to providing a framework that ensures:

- Safe and healthy working conditions for the prevention of work-related injury or ill health.
- Compliance with all relevant health and safety statutory requirements.
- Provision of adequate resources, such as competent staff and suitably maintained equipment with the support of external safety consultants that ensures the governance of, and compliance with, statutory and company standards.
- Provide sufficient information, instruction, training, and supervision to enable everyone to avoid hazards and contribute to their own safety and health.

Our policy is communicated to, and extends to, all persons working for or on our behalf of the company and is made readily available to our employees.

As the Chief Operating Officer responsible for the implementation of this health and safety policy, I accept the responsibility for ensuring its success through regular reviews of the success or otherwise of its effectiveness in eliminating risks to health and safety of our employees or those who may be affected by our operations.

SIGNED:

DATE:

1.2 Statutory Duty of the Company:

Devon Pathways will comply with its duty to ensure, as far as is reasonably practicable, the health, safety, and welfare at work of its employees and of visitors to its premises and, in general, to:

- Make our workplaces safe and without risks to health.
- Ensure all items of equipment provided are safe and that safe systems of work are established and followed.
- Ensure articles and substances are moved, stored, and used safely.
- Provide employees with the information, instruction, training, and supervision necessary for their health and safety. In particular,
- Arrangement for implementing the health and safety measures identified as necessary.
- Ensure all our activities are risk assessed with significant risks being recorded.
- Appoint a competent person to advise and assist us with legal compliance.
- Implement a robust accident & accident reporting procedure, including “near-misses”
- Provide adequate First Aid facilities.
- Make sure that the workplace satisfies statutory requirements, e.g., for ventilation, temperature, lighting and for sanitary, washing and rest facilities.
- Make sure that work equipment is suitable for its intended use as far as health and safety is concerned, and that it is properly maintained and used.
- Prevent or adequately control exposure to substances that may damage health.
- Provide health surveillance as appropriate.

1.3 Statutory Duty of Employees: (includes Forest School Leaders, Farm Manager & Mentors)

Employees have legal duties assigned to them to:

- take reasonable care of their own health and safety, and that of other people who may be affected by what they do or do not do.
- co-operate with the Company on all health and safety matters.
- use work items provided to them correctly, including personal protective equipment, in accordance with training or instructions.
- Not to interfere with or misuse anything provided for health, safety, and welfare purposes.
- To report at the earliest opportunity injuries, accidents, near-misses, or dangerous occurrences at work.

2.0 Management of Health and Safety

2.1 Management responsibilities:

2.1 The Chief Operating Officer

The Chief Operating Officer supports the Directors by ensuring that:

- This Policy is communicated adequately to all relevant persons
 - Appropriate consultation arrangements are in place for staff
 - All staff are provided with adequate information, instruction and training on health and safety issues
 - Risk assessments and working practices are undertaken
 - Safe systems of work are in place as identified from risk assessments
 - Ensure appropriate health and safety notices displayed as identified
 - Emergency procedures are in place
 - Machinery and equipment are inspected and tested to ensure it remains in a safe condition
- Records are kept of all relevant health and safety activities e.g. assessments, inspections, accidents, etc.
 - Arrangements are in place to monitor premises and performance
 - Accidents are investigated and any remedial actions required are taken or requested

2.2 STAFF HOLDING POSTS/POSITIONS OF SPECIAL RESPONSIBILITY

This includes Forest School Leader, Farm manager.

- Apply Devon Pathways Health and Safety Policy to their own phase/department or area of work and be directly responsible to the Chief Operating Officer for the application of the health and safety procedures and arrangements
- Carry out regular health and safety risk assessments of the activities for which they are responsible and submit reports to the Chief Operating Officer
- Ensure that all staff under their management are familiar with the health and safety procedures for their area of work
- Resolve health, safety, and welfare problems that members of staff refer to them, or refer to the Chief Operating Officer or Directors any problems to which they cannot achieve a satisfactory solution within the resources available to them
- Carry out regular inspections of their areas of responsibility to ensure that equipment, furniture, and activities are safe and record these inspections where required
- Ensure, as far as is reasonably practicable, the provision of sufficient information, instruction, training, and supervision to enable other employees and young people to avoid hazards and contribute positively to their own health and safety
- Ensure all accidents are investigated appropriately
- On request contribute information for to the health and safety report to Directors.

2.3 OBLIGATIONS OF ALL EMPLOYEES

Apart from any specific responsibilities which may have been delegated to them, all employees must:

- Act in the course of their employment with due care for the health, safety, and welfare
- of themselves, other employees, and other persons.
- Observe all instructions on health and safety issued by the LA, School or any other person delegated to be responsible for a relevant aspect of health and safety.

- Act in accordance with any specific H&S training received.
- Report all accidents and near misses in accordance with current procedure.
- Co-operate with other persons to enable them to carry out their health and safety responsibilities.
- Inform their Line Manager of all potential hazards to health and safety, particularly those which are of a serious or imminent danger.
- Inform their Line Manager of any shortcomings they identify in Devon Pathways health and safety arrangements.
- Exercise good standards of housekeeping and cleanliness.
- Know and apply the procedures in respect of fire, first aid and other emergencies. Co-operate with the appointed Trade Union Health and Safety Representative and the Enforcement Officers of the Health and Safety Executive.

All employees who authorise work to be undertaken or authorise the purchase of equipment will ensure that the health and safety implications of such work or purchases are considered.

Employees entrusted with responsibilities for specific aspects of health, safety and welfare must satisfy themselves that those responsibilities as appropriate are re-assigned in their absence. Such re-assignments must be approved by the employee's immediate superior.

2.4 SPECIAL OBLIGATIONS OF MENTORS

Mentors are expected to:

Exercise effective supervision of their young people and to know the procedures in respect of fire, first aid and other emergencies, and to carry them out

- Follow the health and safety procedures applicable to their area of work
- Give clear oral and written health and safety instructions and warnings to young people as often as necessary
- Ensure the use of personal protective equipment and guards where necessary
- Make recommendations to their Chief Operating Officer on health and safety equipment and on additions or necessary improvements to plant, tools, equipment, or machinery
- Integrate all relevant aspects of safety into the mentoring process and, where necessary, give special instruction on health and safety
- Ensure that personal items of equipment (electrical or mechanical) or proprietary substances are not brought into the school without prior authorization
- Report all accidents, defects, and dangerous occurrences to the Chief Operating Officer

2.5 YOUNG PEOPLE

Young people, in accordance with their age and aptitude, are expected to:

- Exercise personal responsibility for the health and safety of themselves and others
- Observe all the health and safety rules and in particular the instructions of staff given in an emergency Use and not wilfully misuse, neglect or interfere with things provided for their health and safety.

2.6 HEALTH AND SAFETY REPRESENTATIVES

The Directors and Chief Operating Officer recognise the role of Health and Safety Representatives appointed by a recognised trade union. Health and Safety Representatives are entitled by law to investigate accidents and potential hazards, pursue employee complaints, and carry out inspections within directed time wherever practicable.

They are also entitled to certain information, for example about accidents, and to paid time off to train for and carry out their health and safety functions. However, they are not part of the management structure and are not carrying out duties on behalf of the Chief Operating Officer or Directors.

Time off for training of safety representatives will be provided in accordance with the negotiated agreements. Representatives will be given full access to the information on health and safety, which they have a right to have under the Health and Safety at Work Act 1974. They will also be given appropriate time and facilities to undertake the range of activities of a Safety Representative in order that they can play an effective role, any problems that need further action or a review of procedures.

2.7 Risk assessments:

Where necessary, we will undertake a suitable and sufficient assessment of the risks to our employees and others who may be affected by our operations and record the significant findings of that assessment.

Where significant risks have been identified, we will bring these to the attention of the employees engaged in the work activity to which the risk assessment refers.

2.8 Principals of Prevention:

We will endeavor to apply the principles of prevention to our operations these are:

- Avoid the risk where possible.
- Evaluate the risk that cannot be avoided.
- Adapt our working procedures to minimize the risk.
- Take advantage of technology offering opportunities for improving working methods.
- Implement risk prevention measures.
- Give priority to collective protective measures.

3.0 ADMINISTRATIVE PROCEDURES

3.1 Accident reporting, recording & investigations.

All staff are required to ensure that all accidents, incidents and near misses are reported to the Chief Operating Officer.

These will be reported to Riddor [Reporting of Injuries, Diseases & Dangerous Occurrences RIDDOR \(hse.gov.uk\)](#) under the guidance of the given. Found in the incident and accident reporting guide or on this link [Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 \(RIDDOR\) INDG453 \(hse.gov.uk\)](#) .

Reports will be made via the online form [How to make a RIDDOR report - RIDDOR - HSE](#) or over the phone.

All incidents can be reported online but a telephone service is also provided for reporting fatal/specified incidents **only** - call the Incident Contact Centre on 0345 300 9923 (opening hours Monday to Friday 8.30 am to 5 pm).

3.2 First aid provisions

First aid boxes are in the Devon Farm storeroom which is identified by a first aid sign.

All mentors carry a first aid pack in their vehicles. In an emergency Office staff will summon an ambulance.

3.3 Generic risk assessment

Curriculum Safety (including learning activities)

Mentors complete a risk assessment for visits/activities.

Generic risk assessments for routine activities are held in Section 5 of this document.

Staff are responsible for considering the risks associated with activities undertaken and should complete a written risk assessment for unusual activities or those undertaken for the first time. These should be submitted to their line manager to sign off and for inclusion in Devon Pathways risk assessment file.

The Forest school Leader and the farm manager completes a site survey every term and reports on finding

3.4 Fire safety

The Forest school leader and farm manager are responsible for fire precautions and Emergency procedures. All staff at the farm and forest school site should be aware of the Emergency procedures.

Office locations will have a fire risk assessment issued (copies of which will be retained in Section 5).

All fire prevention measures provided i.e. fire extinguishers will be subjected to annual maintenance.

Where employees or others are required to utilize the use of fire extinguishers to safeguard themselves from harm, they will be provided with the relevant training.

3.5 Smoking

Throughout the UK smoking is prohibited by law in virtually all enclosed workplaces and public places, on public transport and in vehicles used for work.

Use of Nicotine Containing Products

The term “electronic cigarette” is a generic term many, but not all, are in the form of thin white tubes that look like cigarettes. Some electronic cigarettes contain nicotine, some do

not. Some produce a white odourless vapour; others produce no vapour at all. They do not burn tobacco and do not create smoke (products of combustion).

Use of products that resemble cigarettes or which could be confused with them, including 'electronic' cigarettes and the licensed medicine called the Nicorette® Inhalator, is not allowed anywhere within the perimeter of the site, this includes all external places.

3.6 Managing medicine and drug administration.

The Supporting Children with Medical Needs and Managing Medicines Policy refers.

Devon Pathways staff are only allowed to administer medication prescribed for a specific child by the child's doctor with parental permission. Parents are required to fill in a form requesting staff to give medication during school time. Staff will be trained as the need arises in cases of long-term or unusual medication.

3.7 Personal protective clothing (PPE)

Staff wear and where appropriate are provided with suitable protective equipment, e.g. gloves, goggles, ear defenders, and suitable attire for working outside during winter (this list is not exhaustive).

It is the responsibility of the Forest school Lead and Farm manager to ensure that there is suitable protective equipment for site staff and that it is used.

All staff have a responsibility for ensuring that they have and use the appropriate PPE. Any concerns or queries regarding PPE should be drawn to the attention of the Forest school Lead and Farm manager.

3.8 Staff Training & Development

New staff are inducted which includes information regarding Health and Safety.

Role specific training is provided as required and is identified primarily through:

- Devon Pathways appraisal process,
- the routine monitoring of health and safety qualifications and certificates, e.g. first aid lists

All staff have an individual responsibility to identify and report where they might require additional training or support.

Training needs related to Health and Safety should be passed to their line manager for action.

4.0 Operating procedures

4.1 Abrasive Wheels (use & maintenance)

4.1.1 Introduction

An abrasive wheel is usually defined as a wheel consisting of abrasive particles bonded together with various substances.

Injuries involving the use of abrasive wheels fall into three main types.

- (1) those which result from particles being thrown out during a grinding process,
- (2) those which occur when a grinding wheel bursts or disintegrates,
- (3) those caused by contact between a revolving wheel and a person's hand or some other part of the body.

Many of these injuries are relatively minor in nature, but some prove fatal.

Strict compliance with the requirements of the Provision and Use of Work Equipment Regulations 1998 is essential in reducing the risk of these injuries. The guidance which follows is relevant to meeting the requirements of these regulations.

4.1.2 Training:

It is very important that persons who mount wheels on machines and operators are trained to anticipate the hazards which may arise during mounting whilst the machine is being used and to take the precautions which will eliminate or minimise those hazards. Employers must provide appropriate training to comply with the requirements of both Section 2(2)(c) of the Health and Safety at Work etc. Act 1974 and Regulation 9 of the Provision and Use Work Equipment Regulations 1998.

There is no substitute for thorough practical training in all aspects of the mounting and use of abrasive wheels. Any training programme should cover at least the following:

1. hazards and risks arising from the use of abrasive wheels and the precautions to be taken
2. methods of marking abrasive wheels with their type, size and maximum operating speed
3. how to store and transport abrasive wheels.
4. how to inspect and test abrasive wheels for damage.
5. the functions of all components used with abrasive wheels such as flanges, blotters, bushes, nuts etc.
6. how to assemble abrasive wheels correctly to make sure they are properly balanced and fit to use.
7. the proper method of dressing an abrasive wheel, where this is appropriate.
8. the correct adjustment of the work rest on pedestal or bench grinding machines.
9. the relationship between the spindle speed and wheel speed.
10. the use of suitable personal protective clothing/equipment.

A record will be maintained of individuals training and certification to use an abrasive wheel.

4.1.3 Selecting a suitable wheel

Selecting the right abrasive wheel for a particular application from the great variety of wheels available is obviously a matter of some importance. The best advice on wheel selection can be obtained from a competent manufacturer or supplier of abrasive wheels but there are some general points which are worth mentioning here.

There is a British Standard marking system for abrasive wheels. Anyone with an understanding of this system can identify, by looking at the marking on the wheel, the characteristics of the wheel – what is it made from; whether the grain is coarse, medium, fine, or very fine; how soft or hard the wheel is and what type of material has been used to bond the abrasive grains together.

Only reinforced resin-bonded or resin-bonded (resinoid) abrasive wheels must be used with portable grinding machines. The hardness of a wheel describes the strength with which the particles are held into the wheel. As a rule, soft grade wheels are most suitable for use on hard materials whilst hard grade wheels are better for use with soft materials. If a soft wheel is used on soft material, the wheel face may become closed or loaded with particles of the material being ground. On the other hand, a hard wheel used on hard material may become glazed. In both cases the cutting efficiency of the wheel is reduced, and the operator may in consequence press the workpiece hard against the wheel causing it to break.

The soundness of an abrasive wheel in which a vitrified bonding material has been used can be checked by suspending the wheel vertically and tapping it with a light non-metallic implement. If it rings it is satisfactory, but if it sounds dead, then it is most likely to be cracked and should not be used.

4.1.4 Wheels bursting or fragmenting

The most serious injuries involving abrasive wheels occur when wheels burst, and flying fragments strike people in the vicinity. This has caused fatalities when, for example, people have had an artery severed by a flying piece of wheel.

The main causes of wheels bursting are:

1. over-speeding,
2. the faulty mounting of wheels on grinding machines and
3. incorrect use.

Grinding machines must be marked with the maximum working speeds of their spindles, whilst abrasive wheels must be marked with the maximum speed at which they may be operated. The maximum permissible speed in revolutions per minute (rpm) and metres per second (m/s)

diameter, or on the blotter or identification label which is sometimes attached to it. Since it is not practicable to mark smaller wheels, the maximum permissible speed in rpm of wheels 80 mm in diameter or less should be stated in a notice posted in a position where it can easily be read.

Cutting and grinding wheels used with portable machines normally have the words “stone” or “metal” written upon them to show what materials they should be used with. These words are sometimes shortened to the letter “C” for stone and “A” for metal.

4.1.5 Mounting wheels

Before any abrasive wheel is mounted on a grinding machine it should be cleaned with a brush and examined for any possible signs of damage. Any wheel which is found to be damaged should be rejected.

No wheel should be mounted on a machine for which it is not intended. The wheel should fit easily but not loosely on the spindle. If it fits too tightly, the heat generated during the grinding operation may cause the spindle to expand and so crack the wheel. However, if the fit of the wheel on the spindle is too slack, it may be extremely difficult to centre the wheel on the spindle. Some wheels may be supplied with spacers or bushes to allow a wheel with a single hole size to be used on several different sized spindles.

To prevent a wheel coming off the spindle on which it is mounted, the wheel should revolve in the opposite direction to the direction in which the nut securing the wheel on the spindle was tightened.

Straight-sided abrasive wheels used on fixed machines must be mounted between suitable flanges which have a diameter not less than one-third the diameter of the wheel. The flanges should both be of the same diameter and be recessed on the side next to the wheel to ensure that clamping pressure is not exerted near the hole in the centre of the wheel. Except on machines driven by a motor of less than 560W, the driving flange should be secured to the spindle so that it cannot revolve on the spindle. Flanges should be made from mild steel or other material of equal or greater tensile strength and rigidity.

The nut which holds the abrasive wheel between the flanges on the grinding machine should be tightened only sufficiently to ensure that the flanges drive the wheel and prevent slip. If the tightening torque recommended by the manufacturer is known, a torque wrench should be

used, otherwise the nut should be tightened by hand pressure using only a spanner without extra leverage.

Straight-sided cutting-off wheels over 230mm diameter should have washers or blotters of compressible material fitted between the wheels and their flanges. Washers, which are supplied by the wheel manufacturer, should be slightly larger than flanges.

Depressed centre wheels should be mounted only with the special flange assembly.

4.1.6 Storage of abrasive wheels

Abrasive wheels should be stored in an area which does not become excessively hot or excessively cold. The area should always be kept dry.

Straight-sided wheels such as those used on bench-mounted or angle-grinding machines should be stored on edge or on a spindle. Where they are stored on edge, precautions should be taken to prevent them from falling over and from rolling.

Thin wheels such as cutting-off wheels should be stored flat on a horizontal surface to prevent them from warping. A heavy steel plate makes a good base on which to stack thin wheels.

4.1.7 Inspection and maintenance

Routine checks, regular inspection and preventative maintenance are essential if accidents are to be avoided.

The user of the equipment should carry out a visual check on the tool before using it so that obvious defects can be identified e.g. damage to the cable or on/ off switch. Any tool in an unsafe condition must be withdrawn from use until a competent person has rectified the defects.

In addition to the checks by the user a competent person should carry out a combined inspection and test every three months.

Cutting-off wheels should be mounted only on machines designed specifically for their use. They should never be mounted on makeshift machines. Where practicable, materials being cut should be jigged or otherwise secured to prevent movement which could trap the wheel.

As a rule, both the flanges used to secure a wheel to the spindle should be the same diameter and have the same recess diameter to create equal bearing surfaces on the wheel, but the shape of some wheels may not allow this rule to be followed, for example certain internal and cup wheels.

4.2 Safe Use of Portable Tools & Electrical Equipment

4.2.1 Introduction

The proper selection and maintenance of portable tools and the provision of information, instruction and training in their use are requirements of the Provision and Use of Work Equipment Regulations 1998. Other detailed requirements of these regulations also apply to

all portable tools. This section gives general guidance on precautions to be observed in the safe use of various types of portable tools, irrespective of whether the detailed requirements of the Provision and Use of Work Equipment Regulations apply.

4.2.2 Hand Tools

Hand tools, in this context, refer to those tools for which the hand provides the motive force, i.e. picks, shovels, crowbars, wrenches, saws, chisels, hammers, screwdrivers, etc. These tools, by themselves, are incapable of causing accidents, although some poorly designed tools may be inherently dangerous. Therefore, accidents with them tend to arise from human failing: carelessness, lack of knowledge, not using the correct tool for the job, ignorance of sensible safety precautions, or failure to maintain tools in good working order.

Hand tools are sometimes used by unskilled or semi-skilled labour. It is, therefore, the duty of management to provide the appropriate tools, to ensure that operatives are properly instructed in how to use them and to provide competent supervision to ensure that work is correctly and safely performed.

4.2.3 Repair and storage

Tools should be regularly checked. They should be thoroughly examined before storage and, if worn or damaged, they should be properly repaired or discarded. Persons in charge of tool stores should be responsible for examination and repair.

When not in use, tools should be stored in boxes or racked; cutting edges should be sheathed. Tools should be kept clear of gangways so as not to present a tripping hazard.

4.2.4 Selecting the right tool

Every tool has its proper application. The correct type, size and weight of tool should be selected for the job. To misuse a tool, or to use the wrong tool, is to invite personal injury and damage.

4.2.5 Electrical risk

All metal tools are conductors of electricity. Where it is necessary to work on, or near, electrical apparatus (remember this should be the last resort) where there is a risk of contact with the live electrical conductor, only properly insulated and/or non-conductive tools should be used. Insulated tools should be tested at regular intervals by a competent person.

These precautions form only one element of a safe system of work in this respect. This must be written down in the form of a method statement and risk assessment and carefully briefed to the persons who will carry out this high-risk work.

4.2.6 Sparking risk

For work near highly flammable materials explosive dusts or in flammable atmospheres, special tools, made from non-ferrous metals, e.g. copper/beryllium are required, since a spark struck from normal steel tools could cause fire or explosion. Spark-proof tools should be regularly inspected in case steel splinters have become embedded.

4.3 Power Tools

Numerous jobs can be done faster; more efficiently, even more accurately, and certainly more economically, using powered tools and Operative fatigue is reduced. It is essential, however; that these tools are used only for those jobs for which they were designed. It is the responsibility of management to provide the right kind of tool for the job and to see that it is properly used.

Information concerning the safe use of tools should always be provided by manufacturers and suppliers. It is important that this information is provided to the person who is going to use the tool.

The efficient and safe use of all powered tools can come only through proper tool selection, training, use, maintenance and from adequate supervision on site. Too many accidents have occurred using these tools by untrained, unskilled labour. With the more potentially dangerous equipment, e.g. portable saws, cartridge tools, nail guns and portable grinders, even qualified tradesmen should be given specific instruction and only use them if they are authorised by their employer to do so.

Power for this type of equipment can be supplied from:

- compressed air
- explosive cartridge
- electricity, or
- internal combustion engine.

There may be little to choose from the efficiency of tools operated from any of these sources, but there are sometimes other considerations to be considered, e.g. the electric breaker is quieter in operation than its pneumatic counterpart because it has no exhaust noise. Such tools are therefore more suitable for use in some confined spaces where exhaust fumes and the noise level would otherwise become dangerously high. These advantages must be weighed against the dangers of using electrical tools in certain confined spaces, such as sewers where water or dangerous atmospheres will be present.

The continuing efficiency of all portable powered tools, like all other mechanical equipment, depends on regular care and maintenance. Tools should be regularly checked on issue from and return to store in addition to the user's constant vigilance.

All tools which have exposed cutters or other dangerous moving parts should be switched off and not left unattended until those parts have stopped moving.

Operators should not wear any items of loose clothing which would become caught in moving parts of power tools. Neither should long hair or chains for jewellery or security identification purposes be worn unless effectively tucked away.

4.3.1 Noise

Excessive noise is a hazard in the use of many power tools, particularly pneumatic. Noise should be reduced at source, as far as possible – compressors should be of the quiet type or at least have sound-reducing covers, which should be closed when running, and suitable

silencers should be fitted to tools, e.g. exhaust mufflers to concrete breakers; silenced breaker steels are also available.

Where persons are exposed to a noise level exceeding the equivalent of 80 dB(A) for 8 hours, those persons should be advised that this is the case and if they request, hearing protection must be provided. Where the noise level exceeds 85 dB(A) for 8 hours or its equivalent, hearing protection must be worn if other methods of reducing the noise cannot be utilised.

4.3.1 Vibration

Several tools are associated with the incidence of Hand/Arm vibration, in particular Vibration White Finger. Where exposure to vibration is likely, a regime to monitor, control and reduce exposure must be introduced.

Tools associated with vibration include pneumatic breakers and drills, chain saws, portable grinders and chipping hammers, handheld strimmer's, and brush cutters, etc. Certain tools, e.g. chain saws, whacker plates etc. are available in anti-vibration form and these should always be used where possible. The supplier should be approached to see if there is an alternative.

4.3.2 Dust

High-speed cutting tools will generate large amounts of dust. The hazard and associated risk will depend on the type of dust generated and the way in which it is controlled. In many situations, controlling the risk at source by wet cutting or incorporating on tool extraction, can dramatically impact on exposure levels.

4.3.3 Pneumatic tools

Compressed air is delivered at high pressure. If it enters the body, it can rupture internal organs and cause death. Any form of horseplay should be expressly forbidden under all circumstances.

4.3.4 Strimmer's & Brush-cutters

The safe use of portable, handheld, combustion engine driven strimmer's & brush-cutters which are commonly used for cutting weeds, brush and similar vegetation and are frequently used in ground clearance work connected with forestry and parkland operations using a variety of standard cutting attachments is important as they are the cause of numerous serious incidents each year.

4.3.5 Hazards

The main hazards associated with strimmer's & brush-cutters include:

- *cutting parts* of the equipment contacting the body
- vibration - Strimmer's and brush-cutters should be fitted with anti-vibration handles to help protect against the risk of Vibration White Finger.
- *noise* - Most strimmer's and brush-cutters operate at noise levels above 85dB (A) so hearing protection must be worn. The manufacturer's advice should be followed as to the

most suitable type of hearing protection. The tool must be fitted with a symbol reminding operators of the need to wear hearing protectors. The symbol must comply with the Safety Signs Regulations.

- *flying fragments*
- *dust*
- *exhaust emissions* - Petrol powered strimmer's and brush-cutters give off toxic fumes and should never be used in confined spaces such as buildings unless there is suitable ventilation.
- *snagging* of cutting parts of equipment with hidden objects

Other hazards may include:

- uneven ground
- fuel – spillages, fire
- environmental – damage to flora and fauna, noise & dust nuisance, pollution of watercourse
- protection of public/workforce
- lone working
- traffic management
- manual handling
- disturbance of insect nests

4.3.6 Control measures

Any work using a strimmer or brush cutter involves a risk of flying debris and must be performed under a risk assessment. In addition, work involving a brush cutter involves a risk of the blade bursting if it should strike any hidden or unforeseen objects.

It may not be possible to eliminate the requirement to use handheld strimmer's or brush-cutters however the following hierarchy should be applied:

Can the work be avoided?

Can the work be automated by machine?

Can weedkillers or chemical retardants be used instead?

4.3.7 Protective clothing

Suitable protective clothing and equipment should be provided and worn, no matter how small the job, to protect those parts of the body susceptible to injury.

This should include:

1. Safety Helmet conforming to EN 397 (replace in accordance with manufacturer's instructions - normally every 2 - 3 years).
2. Ear Defenders to EN 352-1
3. Eye Protection Mesh visors to EN 1731 and safety glasses to BS EN 166 or polycarbonate visors to BS EN 166 1-B 3.9 Grade 1. Combined helmet/visor/ear defenders are also available.
4. Clothing that should be close fitting
5. Gloves with suitable protection from thorns, brambles, and harmful weeds.
6. Protection for Legs incorporating loosely woven long nylon fibres or similar material (all round leg protection is recommended) to BS EN ISO 13688 Class 1 (brush-cutters).

7. Protective Boots with good grip and ankle support to BS EN ISO 20345. Protective spats (to EN 381-9) may also be used.

4.3.8 Emergencies and First Aid

Anyone working with a strimmer or brush-cutter needs to understand how to control major bleeding, so it is recommended that operators hold an emergency first-aid certificate. In remote workplaces, people who have been injured may also be at risk of hypothermia.

Make sure operators always carry a personal first-aid kit (incorporating a large wound dressing) with them and have reasonable access to a more comprehensive kit.

Ensure operatives are aware of emergency contact procedures and can provide emergency services with enough detail for them to be found if there is an accident e.g. Grid reference, distance from main road, type of access, can it be reached by car/four-wheel drive etc.

4.4 Manual Handling

4.4.1 Introduction

More than a third of the accidents reported each year to enforcing authorities are associated with manual handling

- the transporting or supporting of loads by hand, or by bodily force. While fatal manual handling accidents are rare, accidents resulting in a major injury, such as a fractured arm are more common, accounting for nearly 10.5% of all major injuries reported in 2001/02. The vast majority of reported manual handling accidents result in over-three-day injury, most commonly a sprain or strain, often of the back.

Sprains and strains are caused by incorrect application and/or prolongation of bodily force. Poor posture and excessive repetition of movement can be important factors in their onset. Many manual handling injuries are cumulative rather than being truly attributable to any single handling incident. The injured do not always make a full recovery – the result can be physical impairment or even permanent disability.

The Management of Health & Safety at Work Regulations 1999, require employers to make a suitable and sufficient assessment of the risks to the health and safety of their employees whilst at work. Where this general assessment indicates the possibility of risks from the manual handling of loads, the requirements of the manual Handling Operations Regulations 2002.

4.4.2 Manual Handling Operations Regulations 2002

These regulations apply to all work activities (other than in sea-going ships), where human effort, as opposed to mechanical means, is used to transport, or support a load.

The regulations require employers and the self-employed to:

- avoid hazardous manual handling operations, so far as is reasonably practicable,
- assess any hazardous manual handling operations which cannot be avoided,
- reduce the risk of injury, so far as is reasonably practicable, and
- provide information on the load to be handled.

The regulations also require employees to follow systems of work laid down by their employer to promote safety in the manual handling of loads.

4.4.3 Avoidance of manual handling

Where it has been assessed that there is a risk of injury from manual handling, the first consideration should be whether the load needs to be handled at all, or whether the requirement for handling can be minimised. The scope for eliminating the handling of loads on construction workplaces is limited, but careful planning of storage areas and deliveries of loads can reduce handling requirements.

Where load handling operations are essential, consideration should be given to the use of mechanical handling, for example using lifting appliances e.g. vacuum lifters or fork-lifts. The use of such mechanical aids should be considered by main and managing contractors at the planning stage of all contracts.

4.4.4 Assessment of risks

Where the general assessment carried out in accordance with the Management of Health and Safety at Work Regulations indicates a possibility of injury from manual handling operations, and it is not reasonably practicable to avoid such operations, a more detailed and “suitable and sufficient” assessment must be carried out. This assessment should be made, on behalf of each employer and the self-employed, by a person suitably experienced in the risks from the manual handling operations concerned, e.g. by a manager or supervisor, with advice, where necessary, from safety or occupational health professionals. Opportunities should be given for employees and, where applicable, their safety representatives, to contribute. Assessments should be coordinated by site management.

To be “suitable and sufficient”, an assessment should identify the problems likely to arise during the kind of operations which can be foreseen and the measures which will be necessary to deal with them. Records of accidents and ill-health will be useful in that they will identify previous accidents associated with manual handling operations.

Except in the case of very simple operations where verbal instructions may be sufficient, or operations of very short duration which will not be repeated, the significant findings of assessments should be recorded and kept for as long as they remain relevant.

Assessments should be reviewed in the light of experience, when there is a change in manual handling operations, or if a reportable manual handling injury occurs.

4.4.5 Reducing the risk of Injury

Risks identified in the assessment must be reduced, so far as is reasonably practicable, by taking “appropriate” steps. The effectiveness of measures taken should be monitored and, if they do not have the desired effect, the situation should be reappraised.

Problems should be addressed in a practical way by looking at the same factors of “task”, “load”, “working environment” and “individual capability” to see where improvements can be made, for example: -

- the **task** may be able to be made easier by the provision of some mechanical assistance, such as a gin wheel, vacuum lifter, or scaffold crane,
- the **load** may be made smaller or lighter by specifying a particular size or weight. Heavy building blocks are a case in point,
- the **working environment** may be improved by ensuring more space for manual handling operations and by keeping working platforms free from obstructions, mud, and ice,
- **individual capability** can and should be improved by information and training. Although the primary effort in reducing the risk of injury should be put into the three factors quoted above, employers have duties to provide their employees with health and safety information and training. In devising a training programme for safe manual handling, pay particular attention, therefore, to imparting clear understanding of how to recognise potentially hazardous handling operations:
 - how the hazard might be avoided
 - how to deal with unavoidable and unfamiliar handling operations
 - the proper use of handling aids
 - the proper use of personal protective equipment
 - features of the working environment that contribute to safety
 - the importance of appropriate housekeeping
 - factors affecting individual capability
 - good handling techniques.

Employees should be trained to recognise loads whose weight, in conjunction with their shape and other features, and the circumstances in which they are handled, might cause injury. In general, unfamiliar loads should be treated with caution and, if undue strain is felt, the task should be reconsidered.

4.4.6 Provision of information on the load

Employers are required to provide general indications of the weight and nature of loads, and this should be covered in the training referred to above.

Where it is reasonably practicable to do so, precise information on the weight of each load and on the heaviest side of any load whose centre of gravity is not central, must also be given. Where items are likely to be manually handled, manufacturers and suppliers should ensure that such information is marked on the loads.

4.5 Personal Protective Equipment

4.5.1 Introduction

The use of personal protection in the form of clothing or equipment should be considered as a last resort in the minimisation of accidents in the construction industry. All too often there is insufficient effort to reduce or eliminate a hazard and too much reliance on personal protection to prevent the hazard giving rise to personal injury. For example, considerable attention is often paid to the wearing of ear defenders, whereas equal, if not more effort should be directed to reducing noise levels from plant and construction

processes. The drive to get persons to wear safety helmets must go hand in hand with tighter controls at site level to prevent materials falling from heights. A glance around the base of most scaffolds will bear witness to the industry's failure in this most important area. There is considerable requirement within the construction industry for the use of personal protection, even as a last resort, since, even on the safest of workplaces, hazards are not eliminated. In this section, advice is given on the following items:

Eye Protection

Hearing Protection

Foot Protection

Hand Protection

Other Protective Clothing

Respiratory Protective Equipment (RPE)

Safety Harnesses and Belts

Head Protection

4.5.2 Provision and selection

Employers and the self-employed have duties under the Management of Health & Safety at Work Regulations 1999 to assess risks at work. Where a risk cannot be controlled adequately by other means, they have duties to provide "suitable" PPE. Assessments of the parts of the body endangered by the risk, and the level of risk, must be carried out to determine the type of PPE which is needed and to estimate its required performance. To be "suitable", the PPE must:

- be assessed as appropriate both to the risk involved and to the working conditions,
- be selected to take account of factors such as the length of time it needs to be worn and the need to see and hear
- be capable of fitting the wearer correctly,
- be compatible with other PPE which may need to be worn (e.g. safety helmets with hearing protection),
- carry a CE mark if supplied after 30 June 1995. PPE which was in use before 1 July 1995 may still be used provided the other requirements listed above are met and, where necessary, it is approved by the HSE.

Comfort and convenience to the wearer are also factors which should be considered; employees should be consulted on such matters and given a degree of choice, where appropriate, before final selection is made.

Once a type of PPE has been selected for a given application, further advice may be necessary to ensure that the equipment can provide the protection needed. Manufacturers and suppliers have duties under the Personal Protective Equipment (EC Directive) Regulations 1992 and the Health and Safety at Work etc. Act 1974 to provide such information.

4.5.3 Inspection and maintenance

PPE should be examined in accordance with manufacturers recommendations, by properly trained persons, before being issued. A wearer should also inspect it before use to ensure that it is clean and not defective.

Maintenance must be carried out in accordance with manufacturers' instructions and schedules, which will include, where appropriate, examination, testing and record keeping.

Where equipment is used by more than one person, there must be arrangements for cleaning and disinfecting.

4.5.4 Storage

Where employees are issued with protective clothing and items such as safety helmets and goggles, suitable arrangements must be made for their storage when not in use. Consideration should be given to providing individual lockers in drying rooms so that employees can look after such equipment properly. Items such as RPE and safety harnesses should be kept in a site store in the charge of a competent person. PPE contaminated during use should be kept separately from other items.

4.5.5 Training

Adequate information, instruction and training must be given on the wearing and use of PPE. Training should include such matters as:

- the nature of the hazard,
- the source of the hazard,
- the effects of exposure to the hazard,
- the way in which the PPE functions,
- the way in which the PPE must be worn,
- any limitations of the PPE,
- the way in which the PPE must be inspected and stored,
- the person to whom any defects or loss should be reported.

4.5.6 Duties

Employers have a duty to take all reasonable steps to ensure the proper use of PPE. Adequate supervision must be provided.

Employees and the self-employed have duties to make full and proper use of PPE, to report any defect or loss and, where appropriate, to return it to stores after use.

4.5.7 Eye protection

BS EN 166 covers eye protection for industrial purposes. This standard includes spectacles, goggles, and face shields for protection against a variety of hazards. There is a

sampling procedure for testing and each type of eye protection is marked to indicate the hazard, e.g. impact, molten metal, chemical, gas, dust.

In the case of protection against impact, the degree of protection provided is also indicated. For, example, a safety goggle or glasses marked “BS EN 166F” (Grade 2) is impact resistant to a low energy of 45m/sec, whereas a goggle marked “BS EN 166B” (Grade 1) is resistant to 120m/sec and “BS EN 166A” is resistant to a high energy of 190m/sec.

4.5.8 Hearing protection

Hearing protection is used to prevent loss of hearing when persons would otherwise be exposed to levels of noise which are hazardous.

The maximum levels to which persons may be exposed are expressed as a function of intensity and time, e.g. The trigger levels of a peak level or either 80 or 85 decibels [dB (A)] for a period of 8 hours, or its equivalent. This value is quoted as the ‘equivalent continuous sound level’ or 80/85dB (A) Leq (8hr). The noise levels in any particular working environment should be determined by accurate measurement over a period with meters or individual dosimeters but, as a very rough guide, if it is necessary to shout over a distance of 1 m or less in order to be heard, then the noise level may be excessive.

Where hearing protection is required, demonstrate that the attenuation provided by hearing protection is appropriate for the type and level of noise to reduce the noise exposure at the ear to below 87dB(A). Employer’s must ensure hearing protection provided does not reduce the noise level at the ear by more than 15dB(A) below the Upper EAV.

4.5.9 Foot protection

Protective footwear is used in the construction industry to:

- provide protection to the toes in the event of material falling on to the foot. This is achieved using a steel toecap with is normally built into the boot, although it may be on the outside surface,
- prevent injury by the penetration of nails and similar sharp objects. Steel midsole protection is standard on most safety boot ranges and is highly recommended,
- provide protection against the ingress of water. Wellington boots are used when working in wet substances such as concrete, mud or sewers but also offer toe and midsole protection,
- provide a good grip on surfaces which are potentially slippery. Plant fitters may require safety footwear which has oil resistant soles,
- enhance the safety of such persons as electricians by providing high resistivity soles to minimise the risk of serious shock. Unless boots are specifically marked, or to a specification which calls for electrical installation, they should never be assumed to be insulating and, in hazardous situations, other methods of protection, such as rubber safety mats, should be the first line of protection,
- ensure the discharge of static electricity for such persons as those who work in explosive stores,

– provide protection during certain specific operations. For example, chain saw operator boots are readily available. Optional protection features in the form of ankle padding and metatarsal protection are also available.

4.5.10 Hand protection

Manual dexterity is lost when the hands are cold, which can lead to accidents if articles are dropped. Suitable gloves keep the hands warm and supple and should be worn for handling operations in cold weather on site as well as eliminating contact with potentially harmful materials. A range of standards cover gloves including EN 388 covering Mechanical Hazards and classifying resistance to abrasion, cuts, puncturing and tearing.

The first consideration in the selection of industrial protective gloves must be to identify the hazard to be overcome and the handling requirements. Handling of small components will require that the glove must be highly flexible and give good to the operator; alternatively, a glove to give heat protection might place almost no emphasis on the latter properties. The type of physical environment the glove encounters must also be considered e.g. is the glove to be subjected to abrasion, cutting, or tearing?

It is unlikely that any one glove will offer the complete answer to any problem, with no potential weakness. The factors outlined above must normally, of necessity, be placed in order of priority as the final glove selection will almost certainly be a compromise. This may, of course, not present any problem; a glove for a road repair workman is first and almost exclusively a work glove requiring high abrasion, cut and tear resistance, whilst an electrical glove must first and foremost offer protection against high voltage and all other properties may be compromised in the attainment of this over-riding priority

4.5.11 Wet weather clothing

Jackets, trousers, leggings, and one-piece suits made with PVC-coated nylon, cotton or modern high-performance materials will offer varying levels of protection against rain and can also protect from oils, chemicals, and acids.

Condensation on the inside can be a problem but “breathable” waterproof fabric versions are now commonly available. High visibility yellow or orange clothing is advantageous as it enhances visibility.

4.4.12 High visibility clothing

Jackets and waistcoats are the most common, although trousers and other clothing is available. Summer and winter versions are also available. They come with varying numbers of bands and retroreflective material depending upon the level of visibility required. BS 6629 has now been replaced by BS EN 471 High visibility warning clothing.

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