2025

Company Health & Safety Policy

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Contents

Amendment List

Date of Last Amendment	Reason for Amendment
1st January 2025	Annual review

Part 1 – Introduction and Statement of Intent

Introduction and Use of the Policy

This document represents the Health and Safety Policy in respect of Alternative Drainage as outlined below. It defines and establishes the General Policy for Health and Safety as required by the Health and Safety at Work Act 1974 and associated legislation.

Also defined within this document are the responsibilities of management and employees, legislative guidance, and all necessary Organisation and Arrangements for health and safety. This Policy can be best used by following these suggestions:

- Read the contents list at the beginning of each Part to find the main subjects.
- Use the contents list at the beginning of Part 3 to find specific working practices.
- Ensure that all parts of this Policy are thoroughly read and understood.

Guidance on the Health and Safety Policy

This Health and Safety Policy sets out the company general policy for protecting the health, safety and welfare of employees at work and others who may be affected by the undertaking. Under Section 2 (3) of the Health and Safety at Work etc. Act 1974 the written statement must:

- State the companies' general policy on health and safety
- Describe the organisation and arrangements for carrying out the policy
- Be brought to the attention of all employees
- Be monitored, reviewed and revised as often as necessary

This Health and Safety Policy consists of three main parts:

Part 1 – Introduction and Statement of Intent

This part describes the general aims and philosophy with regards to all employees' health, safety and welfare.

Part 2 - Organisation and Responsibilities

This part involves allocating duties and responsibilities to key personnel to implement the policy effectively. Whilst the overall responsibility for health and safety rests with the Proprietor of Alternative Drainage, all individuals have responsibility for carrying out the policy.

Part 3 - Arrangements for Health and Safety

This part includes the systems and procedures in place to ensure effective control of risks and covers the main work activities undertaken by Alternative Drainage.

Each subject within this part includes guidance for assistance and information on compliance with legislation that governs it and the safe working procedures to be observed by all employees. Where appropriate and necessary, notification facilities are included in the relevant section, for example, fire precautions, accident/first-aid arrangements, hazard notification records etc

Health and Safety Policy Statement

As the Directors/Managers of Alternative Drainage we are responsible for and committed to ensuring the health, safety and welfare of all employees, customers, and others that may be affected by our undertaking. We regard health and safety at work as ranking in importance with other vital activities such as customer service, quality management, security issues and contracts, and are committed to a process of continual improvement through effective leadership. At Alternative Drainage we seek to achieve the highest standards, not only because compliance with legislation is mandatory but also because it is in the company's best interests to do so.

It is our intention that all employees read and comply with all parts of this policy for health and safety, and the requirements of the Health and Safety at Work etc. Act 1974 and other legislation as is applicable. It is our stated policy intention:

- To provide adequate control of the health and safety risks arising from our work activities.
- To consult with our employees on matters affecting their health and safety.
- To provide and maintain safe plant and equipment.
- To ensure the safe handling and use of substances.
- To provide information, instruction and supervision for employees.
- To ensure all employees are competent to do their tasks, and to give them adequate training.
- To prevent accidents and cases of work-related ill health.
- To maintain safe and healthy working conditions.
- To review and revise this policy as necessary and annually from the date below.
- To commit to provide all necessary resources, including financial, in order to ensure effective implementation of all the health and safety arrangements outlined within our health and safety policy.

Name: Yana Pearson **Position:** Managing Director

Signature: Y.M.Pearson **Date:** 01/01/2025

For and on behalf of Alternative Drainage

Environmental Policy Statement

Alternative Drainage recognises that in our operations we inevitably impact on the environment, and we therefore are committed to ensure a clean, healthy environment. We will provide our customers with a safe, reliable and responsive service in an environmentally sensitive and responsible manner. We believe that a sound environmental policy contributes to our competitive strength and benefits our stakeholders, including customers and employees by contributing to the overall well-being and health of the communities we serve.

We will:

- Comply fully with the letter and spirit of environmental laws and regulations and strive to secure fundamental reforms that will improve their environmental effectiveness and reduce the cost of compliance.
- Consider environmental factors and the full acquisition, use and disposal costs when making planning, purchase and disposal decisions.
- Work continuously to improve the effectiveness of our environmental management.
- Provide appropriate environmental training and educate employees to be environmentally responsible.
- Monitor our environmental performance regularly through rigorous evaluations.
- Seek to prevent pollution before it is produced; reduce the amount of waste at our site and support pollution prevention by our customers and suppliers.
- Use energy efficiently throughout our operations and support the efficient use of gas and electricity by our customers and suppliers.
- Re-use and recycle wherever possible.
- Use materials that minimise harm to the environment.
- Work co-operatively with others to further common environmental objectives.
- Communicate and reinforce this policy throughout the company.

Name: Yana Pearson **Position:** Managing Director

Signature: Y.M.Pearson **Date:** 01/01/2025

For and on behalf of Alternative Drainage

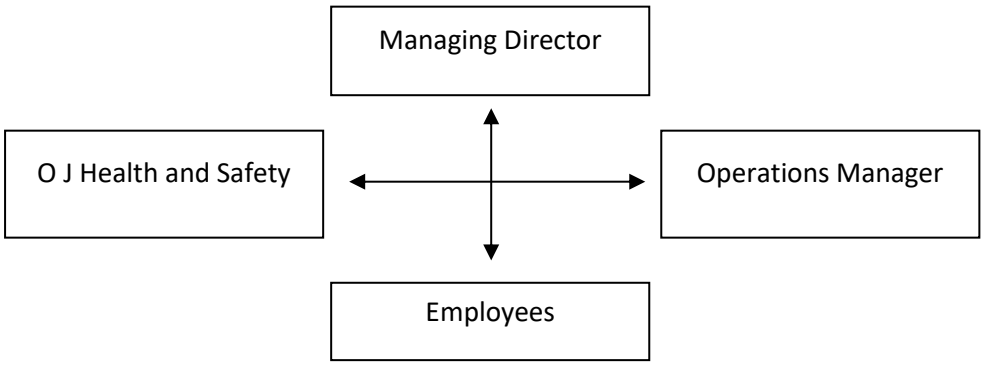
Part 2 – Organisation and Responsibilities

General Responsibilities

Whilst the responsibility for accident and ill-health prevention rests with the Managing Director of Alternative Drainage, all employees are required:

- To take reasonable care for the health and safety of themselves and others who may be affected by their acts or omissions at work.
- To co-operate so far as is necessary to enable compliance with legislation.
- Not to recklessly misuse or interfere with anything provided in the interests of health and safety.
- To observe safety signs and use any appliance, protective clothing, convenience, plant and equipment or other means for securing their health, safety and welfare properly and in accordance with any training and instructions given.
- To report any situation that the employee considers being a serious and imminent danger and any other perceived shortcoming in the health and safety arrangements.
- To assist with accident investigations.
- To report all injuries, illnesses, dangerous occurrences and near misses.
- Health and Safety Communication

Health and safety communications should follow the organisational chart identified below.



Employees who wish to raise matters of concern including hazards and/or shortcomings in the company arrangements for health and safety are to do so to their respective Line or Operations Manager using the hazard notification form. Hazard records are provided to achieve a dual purpose:

- To stimulate a greater involvement and interest of our employees towards health and safety within their working environment.
- To provide a method of communicating hazards and unsafe conditions, together with a suggested method for recording such details and any remedial action taken.
- By maintenance of a written hazard record, evidence is provided to support the procedures that demonstrate the effectiveness of the communication channels. Hazard notification forms are available from the Managing Director and Operations Manager.

Consultation with Employees

In accordance with the Health and Safety (Consultation with Employees) Regulations 1996 the Managing Director will consult directly with all employees, who should ensure any matters for consultation are brought to his attention either directly or through their Line Manager. All employees are encouraged to raise points of concern or suggestions for improvement with regards to health and safety matters in Alternative Drainage.

Typical matters for consultation include:

- Health and safety information and arrangements, including emergency procedures.
- Health and safety training, and the introduction of new technologies or machinery.

- A meeting, to include health, safety and welfare matters will be held every 3 months or earlier if required, with a record kept of action points and/or comments raised. Health and safety agenda items for the meeting will normally include:
- Examination of accident and/or disease statistics and trends.
- Examination of safety audit reports and progress on the Safety Action Plan.
- Analysis of information and reports provided by enforcing authority inspectors.
- Development, introduction and monitoring of safety rules and safe systems of work.
- Appraisal of the effectiveness of health and safety training.
- Provision of safety and health communication and publicity in the workplace.

Information and Instructions for Employees

The poster entitled 'Health and Safety Law – What you should know' is to be prominently displayed in the main office. The Managing Director is to ensure that any young persons or trainees who are working at the company are provided with proper supervision according to their respective roles at all times. The Managing Director will ensure that Alternative Drainage employees who are working under the control of other employers at other sites are given relevant health and safety information and instructions as necessary.

Health and Safety Assistance

In accordance with the Management of Health and Safety at Work Regulations 1999, Regulation 7, OJ Health and Safety (OJ H&S) have been appointed to act as the 'Competent Person' for Alternative Drainage. Telephone advice and assistance is offered within the retained contract. Also available at an extra cost are other additional services such as:

- Health and safety Auditing and Accident Investigation
- Provision of Risk Assessments and COSHH Assessments.
- Provision and conduct of health and safety training.
- Attendance at meetings.
- Liaison with enforcing authorities.

Risk Assessments and Safety Action Plan

In accordance with the Management of Health and Safety at Work Regulations 1999, risk assessments are to be completed by Alternative Drainage and reviewed at least annually. Findings are to be reported to the Managing Director who will authorise actions to remove or control risks and ensure any actions that are required are implemented. The Managing Director is responsible for checking actions taken have removed or reduced the risks and a register of assessments is to be maintained. In addition, the following regulations require specific risk assessments to be carried out where they apply:

- Control of Substances Hazardous to Health Regulations 2002
- Regulatory Reform (Fire Safety) Order 2005
- Health and Safety (Display Screen Equipment) Regulations 1992
- Manual Handling Operations Regulations 1992
- Personal Protective Equipment at Work Regulations 1992
- The Control of Noise at Work Regulations 2005
- The Control of Lead at Work Regulations 2002
- The Control of Asbestos Regulations 2012
- Construction Design and Management Regulations 2015
- L8 The Control of Legionella
- The Control of Vibration in the workplace 2005

Competency for Tasks

All personnel who are working in Alternative Drainage will be provided with training to ensure they are competent for their respective tasks, taking into account their qualifications and experience. The Managing Director is to ensure that induction training is carried out for new employees and that all other training needs

are identified, arranged and monitored. The following are examples of specific training needs that may be required for personnel working at Alternative Drainage:

- First Aid
- Fire Safety
- Manual Handling
- Control of Hazardous Substances
- Use of Display Screen Equipment
- Safety Supervision
- Risk Assessment
- Use of Specialised Work Equipment

Accidents and Ill-Health

Health surveillance in the form of eye and eyesight tests for 'Users' of Display Screen Equipment will be provided for relevant employees at Alternative Drainage. The Managing Director is to ensure that where such health surveillance is required, it is arranged and that appropriate records are maintained.

First aid boxes are to be kept in the main office and company vehicles where Alternative Drainage personnel are employed. First aid personnel are nominated at Part 3 of this manual. The Managing Director is to ensure all accidents and cases of work-related ill-health are recorded in the book provided in the main office, and those reportable injuries, diseases and dangerous occurrences are notified to the Enforcing Authority within the specified time scales (see Part 3 of this manual).

Accident Investigation (including near-misses) and work-related causes of sickness absence remain the responsibility of the Managing Director who may be assisted if required by O J Health and Safety Limited. Where appropriate, reports containing details of the findings of such investigations are to be produced for the attention of the Managing Director who will then act upon any recommendations made to prevent a recurrence.

Policy Review and Update

The policy will be reviewed on an ongoing basis with amendments being produced as may be necessary in accordance with changes to the organisation and arrangements.

The Statement of Intent contains an annual review date, which is a fixed date upon which a full review up of the whole policy will be carried out. Once this is completed and whether changes are needed or not, a new Statement of Intent page displaying the next review date, which will normally be one year on from the last review date, will be prepared and will replace the expired page.

Updating of this policy will be carried out when:

- There are changes to the management structure or to the business name.
- Changes are made to any of the safety arrangements.
- The activities of the business change significantly.

No pages are to be removed from this policy without a replacement being inserted. This policy is to be controlled by the Managing Director and is to be held in the main office.

Emergency Procedures

The Managing Director should ensure that a risk assessment is carried out and regularly reviewed to identify the emergency procedures to be followed in the event of a fire or other emergency for each location where company personnel are employed. The Managing Director is to ensure emergency escape routes are checked daily for the main office and Managers are to ensure emergency escape routes are checked daily for all site operations. Fire extinguishers are to be provided and are to be checked monthly by Line Managers and maintained annually by service contract. Managers are to ensure they and all personnel are aware of the method of raising the alarm for site operations. Emergency evacuation procedures are to be practised on a six-monthly basis.

Responsible Persons and Monitoring

To ensure health, safety and welfare standards are maintained and improved upon, and to promote a positive health and safety culture, the following people have key responsibilities at Alternative Drainage:

The person responsible for ensuring all risk assessments are undertaken is:	Management
The person responsible for dealing with reportable accidents/incidents is:	Management
The person responsible for fire and emergency procedures:	Management
The person responsible for first aid provision is:	Management
The person responsible for health and safety training is:	Management
The person responsible for equipment and maintenance operations is:	Management

Health and safety is no different from any other management function, in that it is necessary to monitor and measure performance against the standards and objectives originally stated. Effective monitoring helps to develop the safety culture and provides the opportunity for practical development of new policies.

Line Managers are required to monitor their areas of responsibility in the form of a daily walk through inspection, which is not to be recorded unless there is a serious breach of the Health and Safety rules. More detailed inspections are to be carried out at frequent intervals and recorded on the monitoring form provided below.

The Managing Director and Managers within the organisation have a personal responsibility for the Health and Safety Policy and its effective and successful implementation.

Key Responsibilities

General Managing Director and Managers

1. In providing this health and safety policy the Managing Director of Alternative Drainage accepts formally and publicly his collective role in providing health and safety leadership. The Managing Director recognises that they have a personal responsibility and liability under health and safety law.

2. The Managing Director and managers have an individual role in providing health and safety leadership at Alternative Drainage and will ensure that their actions and decisions at work always reinforce the messages in the health and safety policy.

3. The Managing Director and managers will ensure that all decisions reflect their health and safety intentions, as articulated in the health and safety policy statement. In particular, the health and safety ramifications of investment in new plant, premises, processes or services, or doing business with other organisations, will be taken into account as decisions are made. In addition, the Managing Director will ensure that clients of Alternative Drainage are alerted to any risks and necessary precautions associated with the services supplied.

4. The Managing Director and managers must recognise their role in engaging the active participation of all employees in improving health and safety. They will actively promote and support employee involvement and consultation to ensure a partnership where employees are involved in identifying and tackling potential or actual problems.

5. The Managing Director and Managers will ensure that they are kept informed of, and alert to, relevant health and safety risk management issues by the appointment of the 'Managing Director' to be the head of 'Health and Safety'.

Managing Director

1. Will develop and promote a safety culture and philosophy, which permeates into all activities undertaken and reaches all personnel involved in them.
2. Will make channels of communication available to employees so that health and safety matters can be discussed and resolved.
3. Will ensure that health and safety training matters are identified and programmed for action.
4. Will ensure that all activities are covered by safe systems of working, periodically reviewing each system for accuracy and content.
5. Will ensure that fire risk assessment is carried out and all control measures stipulated within the risk assessment are carried out and updated as and when necessary.
6. Will ensure that arrangements made for first aid provisions are appropriate to the hazards and risks involved and have been brought to the attention of all employees.
7. Will ensure that all assessment duties have been undertaken and the necessary follow up actions taken, with relevant information provided to employees.
8. Will ensure all injury accidents are recorded and reported as appropriate.
9. Will ensure that all items of plant, machinery and equipment including those facilities for heating, lighting and ventilation receive appropriate maintenance.
10. Will ensure systems are in place to control purchasing of goods and materials, which are fit for purpose, safe to use and ensure that any necessary health and safety information is obtained from suppliers and passed on to those who require it.
11. Will ensure all vehicles, plant, machinery and equipment is maintained in a serviceable condition through planned preventative maintenance systems.

Managers/Supervisors

1. Will have a direct responsibility for implementing this policy within all activities that are under control.
2. Will have an input into developing the organisations safety action plan, setting priorities and targets in connection with risk assessments.
3. Will have a good understanding of the objectives of the organisations safety policy, ensuring that employees have sight of it, and its safety rules.
4. Will ensure effective supervision for all employees under control and those employees have received any necessary training and that records are being kept.
5. Will ensure that the channels of communication provided are understood and used, that stipulated safe systems of work are followed and will assist in the development of new safe systems.
6. Will ensure that all work areas under control are maintained in a safe condition, bringing to the attention of the Managing Director any faults that cannot be dealt with.
7. Will ensure that all work equipment is maintained in a safe condition, with particular attention being paid to vehicles, lifting equipment, storage media, tools and electrical equipment, bringing to the attention of the Managing Director any faults that cannot be dealt with.
8. Will ensure all chemicals and substances in use in areas under control are properly stored, handled, used and transported, bringing to the attention of the Managing Director any faults that cannot be dealt with.
9. Will ensure the welfare facilities provided for employees in areas under control are kept clean and are adequate for their needs.
10. Will ensure the upkeep of fire precautions in all areas under control ensuring all employees and visitors know the procedures if they discover a fire or hear the alarm.
11. Will ensure all personnel under control are aware of the first aid arrangements and who to go to for treatment.

Rules Covering Health and Safety at Work

A. Working Practices

1. Employees must not operate any item of plant or equipment unless they have been trained and authorised to do so.
2. Employees must make full and proper use of all equipment guarding.
3. Employees must report to management immediately any fault, damage, defect or malfunction in any item of plant, equipment, implement or utensil.
4. Employees must not clean any moving item of plant or equipment.
5. Employees must not leave any item of plant or equipment in motion whilst unattended unless authorised to do so.
6. Employees under the age of 18 years must not operate any item of plant or equipment unless they have received sufficient training or are under adequate supervision.
7. Employees must not make any repairs or carry out maintenance work of any description unless authorised to do so.
8. Employees must use all substances, chemicals, liquids etc. in accordance with all written instructions.
9. Employees must return all substances, chemicals, liquids etc. to their designated safe storage area when not in use and at the end of the working period.
10. Employees must observe all pedestrian and vehicle controls in force on the premises.
11. Employees must comply with all signs and notices displayed on the premises.

B. Working Conditions/Environment

1. Employees must make proper use of all equipment and facilities provided to control working conditions/environment.
2. Employees must keep stairways, passageways and work areas clear and in a clean and tidy condition.
3. Employees must dispose of all rubbish, scrap and waste within the working area, using the facilities
4. Employees must use the correct methods when removing any articles of waste for disposal.
5. Employees must clear up spillages or liquids within the work area in the prescribed manner.
6. Employees must deposit all waste chemicals and other substances at the correct disposal points and in the prescribed manner.
7. Employees must not pollute watercourses, sewers or drains with chemicals, or substances.

C. Protective Clothing and Equipment

1. Employees must use all items of protective clothing/equipment provided as instructed.
2. Employees must store and maintain protective clothing/equipment in the approved manner.
3. Employees must report any damage, loss, fault or unsuitability of protective clothing/equipment to their immediate manager.

D. Fire Precautions

1. Employees must comply with all laid down emergency procedures.
2. Employees must not obstruct any fire escape route, fire equipment or fire doors.
3. Employees must report any use of firefighting equipment to their immediate manager.

E. Employer's Transport

1. Employees must carry out daily checks of their vehicles prior to use and in conjunction with the laid down checking procedure.
2. Employees must not drive or operate any vehicles for which they do not hold the appropriate driving licence or permit.
3. Employees must not carry unauthorised passengers or unauthorised loads.
4. Employees must not use vehicles for unauthorised purposes.
5. Employees must not overload vehicles above the stated capacity.
6. Employees must not drive or operate vehicles whilst suffering from a medical condition or illness that may affect their driving or operating ability.

F. Accidents (including near-misses) and Ill Health

1. Employees must seek medical treatment for any injury they may receive, no matter how slight it may seem to be. Upon returning from treatment they must report the incident to a manager.
2. Employees must report all accidents and dangerous occurrences to management as soon as it is practicable.
3. Employees must notify management of any incident in which damage is caused to property.

G. Rules Covering Gross Misconduct

1. An employee will be liable to summary dismissal if he/she is found to have acted in any of the following ways:
2. A serious or wilful breach of Safety Rules.
3. Unauthorised removal or interference with any guard or protective device.
4. Unauthorised operation of any item of plant or equipment.
5. Unauthorised removal of any item of first aid equipment.
6. Wilful damage to, misuse of or interference with any item provided in the interests of health, safety or welfare at work.
7. Unauthorised removal or defacing of any label, sign or warning device.
8. Misuse of chemicals, inflammable or hazardous substances or toxic substances.
9. Smoking on Alternative Drainage premises.
10. Horseplay or practical jokes that could cause accidents.
11. Making false statements or in any way deliberately interfering with evidence following an accident or dangerous occurrence.
12. Misuse of any item of equipment, utensil, fitting/fixture, vehicle, or electrical equipment.

Policy Acknowledgement

This Policy is to be read by all employees, as a condition of employment, and a certificate is to be signed and dated by each employee to confirm this.

A form is provided (for all employees (at induction for new employees) to sign to acknowledge that they have had the Health and Safety Policy brought to their attention. Once completed, this form is to be retained on individual personnel files and held in the main office.

Part 3 – Arrangements for Health and Safety

Working at Height - The Working at Height Regulations 2005

Work at Height, Scaffolds and Towers, Ladders and Steps, Roof work 'Work includes moving around at a place of work.' 'At height describes a place from which a person could be injured when falling from it, even if it is at or below ground level.' We will avoid working at height, where it is reasonably practicable to do the work safely some other way.

When we are required to work at height, we will ensure that**: -**

- The Working at Height Regulations 2005 are conformed with
- All work at height is properly planned, organised and supervised
- Work is carried out in a manner that is safe
- falls will be prevented or, if not able to be prevented the consequences or distance of falling will be minimised
- Those working at height are competent to do so
- Risks are assessed and appropriate equipment selected and used
- Objects etc. are prevented from falling
- Risks from fragile surfaces are avoided or properly controlled
- Equipment used at height will be inspected and properly maintained
- Planning for emergencies and rescue will be made

Scaffolds and working platforms

- Scaffolding will be erected to recognised standards only by trained, competent and authorised operatives
- A competent person will inspect scaffolding before use and after adaptation, alteration or the effects of adverse weather conditions etc. and in any case every 7 days.
- Results of the inspection will be recorded in a register
- Scaffold Incomplete notices will be displayed as required.
- Ladders will be removed or secured to prevent unauthorised access after working hours.
- Special scaffolds will be subject of design or calculations.
- Design drawings and calculations for special scaffolds must be available on site for the information of the person carrying out inspections etc.
- Scaffolds will be secured against bad weather conditions and short boards secured down.
- Edge protection measures will not be removed unless authorised and will be replaced as soon as the need to remove it has expired.
- Tower scaffolds will only be erected by trained, competent and authorised operatives as per manufacturer's instructions.
- No persons will be permitted to remain on tower scaffolds during the moving and repositioning of them.
- When moved they will be pushed via the narrowest side at the bottom of the tower.
- Brakes will be set when used
- The SWL of scaffolds and working platforms will be established, displayed and not exceeded.
- Materials will not be stored on working platforms so as to exceed the edge protection.
- All scaffold structures will be properly earthed where a risk of lightning strikes exists.

When ladders are used, they will be: -

- Used by competent operatives only
- Subject of an inspection regime with records of inspections maintained

- Visually inspected by operatives before use
- Marked with a means of identifying them
- BS EN131 Standard
- In good condition and free from defects.
- Secured against movement.
- Pitched out to a 75º angle (4-1) with the reinforcement under the rungs
- Rise at least 1 metre above a landing place.
- Free from obstruction at their base area
- Used by only one person at a time
- Overhead cables will be identified and made safe when working at height

Operatives will: -

- Maintain three points of contact at all times
- Not use the top 3 rungs when used as a work platform,
- Not 'over reach'
- Not carry materials or tools when ascending or descending ladders.
- When step ladders are used, they will be: -
- BS EN131 Standard
- As with ladders - suitable for purpose
- Used on safe, level ground
- Used for short duration and light work
- Properly 'set up' and not inclined against walls etc.
- Operative not to use top 2 steps
- Not to over reach

Access Equipment

Ladders and Step Ladders – All must be BS EN131 Standard

Ladders are so widely used that their dangers are often completely overlooked. They are frequently used in unsuitable locations where they form inappropriate working places. They are often incorrectly used and poorly maintained. The following precautions are to be taken when using ladders:

- Ladders should be erected on a firm level base and be supported by the stiles only.
- The top of the ladder should rest on a firm, solid surface. If the surface is unsuitable a ladder stay should be used.
- The ladder slope should be about 75° to the horizontal (1:4).
- Ladders should be secured at the top where possible or secured near the base by means of guy ropes.
- If it is not possible to secure the ladder to prevent slipping, someone must hold the ladder at the base while in use.
- Only one person should be on a ladder at any given time.
- Ladders should not be used where any electrical hazard exists (overhead electricity cables).
- Timber ladders should be stored correctly to prevent warping and rungs loosening.
- Timber ladders should be erected with wire tie rods beneath the rungs and should not be painted.
- Step ladders should be in good condition and the top step should not be used.
- Large pieces of materials and equipment should not be carried whilst climbing a ladder.
- To afford adequate handholds, ladders are to extend at least 1m above any landing place or beyond the highest rung from which a person may work. If the ladder cannot provide a handhold an

alternative must be found. From the stepping-off point, unobstructed and safe access to the working place must be provided.

All employees are to check ladders and other access equipment before use and report any defects. Checks are to be made on:

- Mechanical damage to metal ladders.
- Splits, cracks, warping, bruising to timber ladders.
- Movement and wear and tear to rungs.
- Missing rungs.
- Tightness of wedges and tie rods.
- Split or fraying feet.
- Wear to ropes and pulleys on extension ladders.
- Hinges, steps, and ties on step ladders.

Working Platforms

These are defined as any platform used as a place of work, or as a means of access to, or egress from, such a place. Scaffolds, suspended scaffolds, cradles, mobile platforms, trestles, gangways, runs, gantries, stairways are all included in the definition. The following general precautions are to be observed when using a working platform:

- Boards must not be painted.
- Boards must be free from damage, splits and decay.
- Platforms must be secure and not overloaded, and kept clear of debris, trip hazards etc.
- Nails etc. are never to be used to replace locking pins.

In addition, where access is required to a working platform, the working platform is to meet the following standards:

- Platform minimum width – 600 mm
- Minimum height of guard rail – 950 mm
- Maximum gap between rails – 470 mm
- Toe board height – 150 mm

Mobile Elevating Work Platforms

These provide access through hydraulic lifts, which are mounted on a vehicle. They are commonly known as cherry pickers or scissor lifts. All employees using these platforms are to observe the following safety precautions:

- A daily inspection of all parts is to be carried out before use.
- The outriggers and stabilisers are to be used.
- Ensure the machine is level with no cellars or drains beneath the work area.
- Ensure the ground conditions are satisfactory.
- Ensure appropriate warning signs and barriers are used.
- Ensure all materials and tools are secured.

- Ensure the platform is kept clean and not obstructed.
- Ensure the safe working load is not exceeded and work is carried out within the reach of the unit.
- Ensure the working area is clear of overhead obstructions including electricity cables.
- Ensure employees who operate platforms are trained and competent and are under effective supervision.
- Ensure safety helmets and harnesses are used as required.

Mobile Scaffolds or Towers

Mobile scaffolds are commonly used for painting and simple maintenance jobs on buildings. They have one working platform accessible by a ladder. They can be constructed using normal scaffold tubes but are more often fixed tubular structures. The structure is mounted on four wheels so the unit can be moved about with relative ease.

The height of mobile scaffold is generally limited to 12m except for special purposes. For internal use the height should not exceed 3.5 times the shortest base dimensions. When used externally the factor is reduced to three. When used above 9.8 m, some form of guy rope, ballast or anchoring device must be used to give added stability.

The working platform should conform to the standards laid for other scaffolds. When Mobile Platforms are in use the following precautions are to be observed:

- The scaffold must be set up on firm level ground.
- The wheels must be turned outwards to increase the effective area of the base and must be locked to prevent motion.
- The scaffold must only be moved by pushing or pulling at the base.
- The scaffold must not be moved while workers and materials are on the platform.
- Before moving the scaffold, a check is to be made to ensure that there are no power lines or other overhead obstructions.

Fall Arrest Equipment

When it is not possible to construct physical barriers when working at height, full safety harnesses and/or safety nets are to be used and a formal written permit to work system enforced.

All harnesses are to be:

- Appropriate for the user, in good condition, and free from damage to any part.
- Securely attached to a secure anchorage point of sufficient strength.
- Fitted with as short a lanyard as possible to allow the wearer to do the work.
- Actually used.
- Inspected for signs of damage, wear and tear before and after use.
- All employees who use fall protection equipment are to receive training on the correct method of use, the limitations of use, and inspection techniques.

Accident and Dangerous Occurrence Procedures

All incidents involving injuries and those that could have led to injuries being sustained (near misses) are to be reported. An employee who has sustained an injury must report to a First Aider for attention.

A person who discovers an accident victim who has sustained serious injury is to summon the immediate help of a First Aider, and at the same time using his judgement in calling an ambulance. The First Aider is to ensure details of actions taken are recorded using the Internal Accident Report Form (see below), and in the Accident Book.

First Aid Provisions

In accordance with the Health and Safety (First Aid) Regulations 1981 Alternative Drainage is to be covered at all times by a trained First Aider or an Appointed Person, and the names and locations of these personnel are to be prominently displayed. First aid personnel are:

Name	**Location**	**Role**
	Office	Appointed Person
	Site	First Aider

First aid boxes are provided in:

- All Company Vehicles
- Office
- Reception

In addition to administering first aid to employees and taking charge in an emergency, First Aiders or Appointed Persons are to ensure first aid boxes are stocked with the following minimum quantities of equipment:

- A general guidance leaflet on first aid.
- 20 individually wrapped sterile adhesive dressings (assorted sizes) appropriate for the work environment.
- 2 sterile eye pads.
- 4 individually wrapped triangular bandages (preferably sterile).
- 6 safety pins.
- 6 medium-sized individually wrapped sterile un-medicated wound dressings (approx. 12cm x 12cm).
- 2 large sterile individually wrapped un-medicated wound dressings (approx. 18cm x 18cm).
- 1 pair of disposable gloves.

Substances such as ointments, creams, headache tablets etc. are not to be kept in the first aid box. The names and locations of First Aid personnel, and the location of Accident Books and First Aid Boxes are to be prominently displayed in all work areas.

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

The death of any person

All deaths to workers and non-workers, with the exception of suicides, must be reported if they arise from a work-related accident, including an act of physical violence to a worker.

Specified injuries to workers

- Fractures, other than to fingers, thumbs and toes,
- Amputations,
- Any injury likely to lead to permanent loss of sight or reduction in sight,
- Any crush injury to the head or torso causing damage to the brain or internal organs,
- Serious burns (including scalding) which:
  - covers more than 10% of the body,
  - causes significant damage to the eyes, respiratory system or other vital organs.
- Any scalping requiring hospital treatment,
- Any loss of consciousness caused by head injury or asphyxia,
- Any other injury arising from working in an enclosed space which:
  - Leads to hypothermia or heat-induced illness
  - Requires resuscitation or admittance to hospital for more than 24 hours

Over-seven-day incapacitation of a worker

Accidents must be reported where they result in an employee or self-employed person being away from work, or unable to perform their normal work duties, for more than seven consecutive days as the result of their injury. This seven-day period does not include the day of the accident but does include weekends and rest days. The report must be made within 15 days of the accident.

Over-three-day incapacitation

Accidents must be recorded, but not reported where they result in a worker being incapacitated for more than three consecutive days. If you are an employer, who must keep an accident book under the Social Security (Claims and Payments) Regulations 1979, that record will be enough.

Non-fatal accidents to non-workers (e.g. members of the public)

Accidents to members of the public or others who are not at work must be reported if they result in an injury and the person is taken directly from the scene of the accident to hospital for treatment to that injury. Examinations and diagnostic tests do not constitute ‘treatment’ in such circumstances.

There is no need to report incidents where people are taken to hospital purely as a precaution when no injury is apparent.

Occupational diseases

Employers and self-employed people must report diagnoses of certain occupational diseases, where these are likely to have been caused or made worse by their work: These diseases include (regulations 8 and 9):

- Carpal tunnel syndrome
- Severe cramp of the hand or forearm
- Occupational dermatitis
- Hand-arm vibration syndrome
- Occupational asthma
- Tendonitis or tenosynovitis of the hand or forearm
- Any occupational cancer
- Any disease attributed to an occupational exposure to a biological agent.

Dangerous occurrences

Dangerous occurrences are certain, specified near-miss events. Not all such events require reporting. There are 27 categories of dangerous occurrences that are relevant to most workplaces, for example:

- The collapse, overturning or failure of load-bearing parts of lifts and lifting equipment,
- Plant or equipment coming into contact with overhead power lines,
- The accidental release of any substance which could cause injury to any person,
- Reporting a death, a specified Injury or for most types of incident, including:
  - Accidents resulting in the death of any person,
  - Accidents resulting in specified injuries to workers,
  - Non-fatal accidents requiring hospital treatment to non-workers and
  - Dangerous occurrences

the responsible person must notify the enforcing authority without delay, in accordance with the reporting procedure (Schedule 1). This is most easily done by reporting online[1]. Alternatively, for fatal accidents or accidents resulting in specified injuries to workers only, you can phone 0345 300 9923.

NB: A report must be received within 15 days of the incident.

For accidents resulting in the over-seven-day incapacitation of a worker, you must notify the enforcing authority within 15 days of the incident, using the appropriate online form.

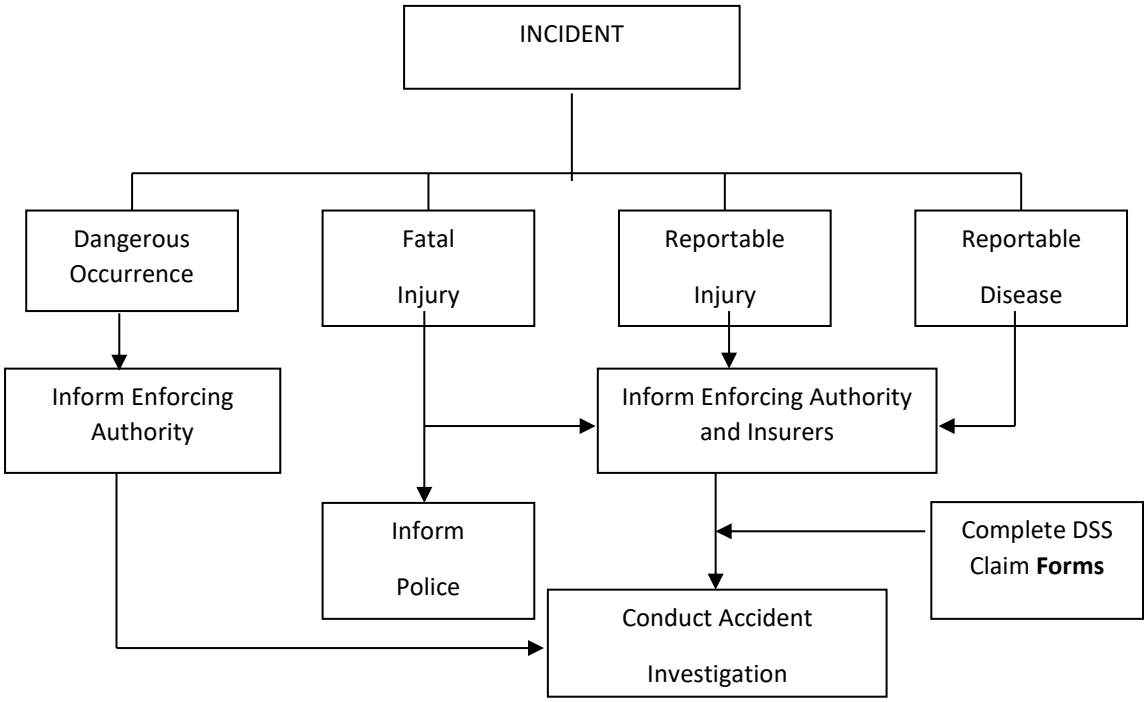
Cases of occupational disease[2], including those associated with exposure to carcinogens, mutagens or biological agents[3], as soon as the responsible person receives a diagnosis, using the appropriate online form[4].

Accident Investigation

Following a serious injury accident at work and in addition to satisfying the reporting requirements under RIDDOR, it will be necessary for management to take both immediate and longer-term actions to prevent a recurrence. These include:

- Giving first aid.
- Isolating the scene.
- Identifying witnesses.
- Setting up an investigation team.
- Conducting an investigation.
- Making recommendations.
- Implementing corrective actions.

The flow chart below is produced to assist with actions to be taken following a serious incident:



All minor accident/incidents will be investigated by site management using the below Internal Accident Report Form. This form will then be sent our safety advisor to be assessed and to ensure all remedial action is relevant.

Buildings and Facilities Maintenance Work

General Precautions

Work at heights such as cleaning roofs, guttering, replacing glass etc. is not to be undertaken by maintenance personnel without proper signage, barriers erected to prohibit access by unauthorised persons, safe access provided including edge protection, roof ladders, and where necessary, fall arrest equipment. A risk assessment must be completed, and senior management authorisation obtained before the work commences. The cleaning of facilities such as sanitary conveniences, floors, high shelving, etc. is only to be done by competent persons who take appropriate steps to safeguard others from slipping or tripping etc. during the cleaning operation.

Electrical maintenance work is not to be undertaken unless the current is switched off and the isolating switches have been locked in the OFF position. Warning signs are to be posted and electrical maintenance work may only be authorised by a manager.

Control of Contractors

The company has a responsibility for the actions of contractors who are working within Alternative Drainage, and all contractors are to be made aware of and comply with the health and safety policy. No maintenance work is to be undertaken by outside contractors without the contractors first possessing:

- A health and safety policy (if 5 or more employees).
- Risk assessments and safe systems of work including method statements and permits to work as may be required.
- Adequate health and safety resources including competent persons and safe plant and equipment.

Asbestos

The Company recognises its responsibilities under the Control of Asbestos Regulations 2012 and associated Approved Codes of Practice (ACOP's) and guidance notes.

The Company will:

- Ensure all employees that may be exposed to asbestos have regular asbestos awareness training,
- Take reasonable steps to locate materials likely to contain asbestos,
- Assume that any material contains asbestos unless there is evidence that it does not,
- Keep an up-to date written record of the location of these materials,
- Monitor the condition of these materials,
- Assess the risk of exposure from asbestos and presumed asbestos materials,
- Prepare and implement a management plan to control these.

All employees undertaking work at customer premises will review the site's Asbestos Register to identify where asbestos may be located before work commences. If the works are refurbishment or demolition, we will ensure that there is an appropriate asbestos survey in place before works commence.

Where there is any doubt then the employee should stop work immediately and contact their Manager. Employees working at a Alternative Drainage site should stop work immediately and contact their Manager in the first instance if they are in any doubt as to the possible presence of asbestos.

Collection and disposal of asbestos will be co-ordinated by company manager using a suitably registered contractor.

Risk Assessments

The Company is aware that the undertaking of risk assessments is a legal obligation on all employers under the Management of Health and Safety at Work Regulations 1999. The assessments will be suitable and sufficient to ensure the safety of all employees and third parties as is reasonably practicable to do so.

What is Covered?

The required risk assessments include those specific to the office premises and site work activities in addition to those procedures for the undertaking of those assessments required by virtue of certain statutory requirements.

Objectives

The objective of the whole risk assessment process is to clearly identify hazards and then to establish the potential of that hazard, in its existing environment, to result in harm to employees and third parties (this potential is the risk).

Risk Assessment Procedure

The Company fully appreciates that for construction type companies the management regulation requirements for risk assessment results in a somewhat generic approach in the first instance. However, additional project specific assessment procedures will ensure that risk assessments as required by the CDM Regulations 2015 are produced.

The Company may be the principal contractor and will ensure such risk assessments are implemented at the design stage and throughout the construction project.

The Company, as contractors to the client or principal contractor, will submit generic assessments at the tender stage followed by site specific on being awarded the contract for a particular housing development project.

Residual Risk: Hazards

These will be identified and assessed either by a Company assessment procedure or in certain instances by further developing the risk assessment information provided by designers. When the risks have been assessed, preventative action will be taken to avoid, combat or adequately control the risk. The adequate controls mentioned above will be established by the production of method statements detailing how the activity will be safely undertaken with the established controls for health and safety.

Communication of the Risk Controls to the Workforce

Safe methods of work will be discussed with all office and site-based operatives during induction training sessions. All toolbox talks will be taken from guidance with the CITB GE700.

The Hierarchy of Risk Control

The following steps will be taken when attempting to assess and control risks which have been identified as being hazardous to sections of the work.

Firstly, consider if the identified hazard can be avoided by a variation in design or procedures of planned work. AVOID THE RISK

(Hazard = A source of energy with the potential to cause harm!).

If the hazard cannot be avoided then it must be combated at its source, ensuring that, essentially through design and planning, the risk is sufficiently reduced to a minimum.

Combat at Source!

Risk = Likelihood and severity of the potential to cause harm!).

If the hazard cannot be combated at source, then the emphasis should be on the safe management and control of the risk. Safe systems of work will be adopted on site before work starts. CONTROL THE RISK (Method statement essential for safe system of work). Any hazard that cannot be removed through design or adequate management controls will be controlled by means of personal protection. (Consider the use of PPE the last resort only)

The Use of Generic and Site-Specific Risk Assessments

Generic site work risk assessments have been developed using information gained and experience of the same day to day work activities. The assessments cover the typical hazards and risks that one could reasonably expect to be found during all work activities undertaken daily. These assessments form a foundation for the Company to develop more office and project site specific assessments including actual task information and work place details.

The Company have established procedures to respond to unforeseen hazards, which may become apparent during construction or refurbishment work undertaken. The established procedures will be contained in Company site health and safety plans, the site health and safety file and head office records.

Method Statements

The Company appreciates that the undertaking of adequate risk assessments is a prerequisite and primary step for the production of all method statements for any work activity. Any work activity which involves significant residual risk will require a specific written method statement to ensure that a safe system of work can be communicated and established by either employee induction sessions or toolbox talks or written confirmation and instruction.

Permit to Work

Purpose

To provide a Safe System of Work for controlling non-routine or specific activities.

Scope

All non-routine or specific work at company locations where management/supervision are authorised to use the Permit to Work system. A non-exhaustive list follows:

- Hot work of any sort involving the use of welding, cutting or heating equipment or any equipment which generates sparks/heat and hence presents a risk of fire,
- Entry into Confined Spaces (Including patient recovery requirements),
- The disconnection or opening of any pipeline or vessel which may have contained any substance which may cause a Safety or Environmental hazard,
- Work on certain types of plant and equipment (site specific),
- Work on any isolated/discharged electrical equipment.

Control of Substances Hazardous to Health

General Precautions

A central register is to be maintained with details of all hazardous substances in use in Alternative Drainage. Safety data sheets are to be obtained from suppliers for all substances that are hazardous to health. In accordance with the Control of Substances Hazardous to Health Regulations 2002 (as amended 2004) an assessment is to be carried out and recorded on all chemicals being used by Alternative Drainage.

Substances are only to be stored in suitable, properly labelled containers, and kept secured in a marked metal locker. Decanting of liquids is to be carried out in well-ventilated areas, and only into suitable, marked containers. Containers that leak, or are suspected of leaking, are to be segregated, sealed, and returned to the suppliers for disposal.

Employees using hazardous substances are to be provided with information about the use, storage, fire precautions and first aid for all the substances in use.

When using hazardous substances, all employees are to ensure for each chemical or substance being used, they:

Find out what harm, if any, it may cause.
Find out how it can cause harm and, in particular, it's hazardous routes of entry.
Find out what workplace precautions are necessary - and use them.
Find out what first aid measures are appropriate - and learn them.
Find out how to check for any symptoms of harm.
Make the checks for symptoms of harm or have them done by a trained person.
Properly dispose of left-over materials and substances.
Do not smoke, eat or drink whilst using the hazardous substances.

Occupational Dermatitis

This condition may be caused by repeated contact with certain substances, or as a reaction too specific 'trigger' substance. Symptoms include redness, itchiness, scaling and blistering. All employees should follow the following preventative measures:

- Maintain good personal hygiene standards including washing and drying hands properly.
- Use a moisturising cream before and after work.
- Wear gloves and other protective equipment as prescribed.
- Read the labels on all substances being handled and follow instructions carefully.
- Conduct regular self-inspections and report skin problems.

Assessments

Alternative Drainage company management will ensure COSHH Assessment are carried out and reviewed on an annual basis. The COSHH Assessments will be distributed to all employees who come into contact with any substance during their employment with Alternative Drainage.

Sub-contractors will be expected to carry out their own COSHH Assessments for any substances they bring onto our sites or our offices. Our assessments will also be readily available for them to use.

Diesel fumes

Breathing in diesel fumes can have adverse health effects and exposure to the fumes can cause irritation of the eyes or respiratory tract, these effects are generally short term and should disappear when away from the

source of exposure, however, prolonged exposure to diesel fumes, in particular to any blue or black smoke, could lead to coughing, chestiness and breathlessness.

In the long term, there is some evidence that repeated exposure to diesel fumes over a period of about 20 years may increase the risk of lung cancer. Exposure to petrol engine exhaust emissions does not have the same risk. Skin contact with cold diesel fuel may cause dermatitis.

Employees who think that their health is being affected by exposure to diesel fumes, should inform their manager and also consult their doctor, in addition, all employees who may be exposed to diesel fumes are to:

- Avoid exposure where possible and make full use of any controls provided.
- Report any faults in the control measures (such as poor extraction fans etc.).
- Keep doors and windows open to remove any diesel fumes where possible.
- Turn off engines when not required.
- Know how to correctly wear any respiratory protective equipment or personal protective equipment provided and keep it clean and serviced and stored in a clean area.
- Not eat or smoke in areas where there is likely to be exposure.
- Wash their hands and face before drinking, eating or leaving work.
- Avoid skin contact with cold diesel fuel and hot fuel or oil.

Electrical Safety

Many electric shocks occur because surfaces that should not be charged become charged. Examples of how this can happen include:

- Incorrect wiring.
- Damage to cabling or to the equipment itself.
- Misuse of electrical equipment.
- Employees are not to misuse electrical equipment and are to report any damage to electrical equipment as soon as it is noticed. Only competent electricians are to work on electrical faults. If electrical failure is suspected, switch off at the mains and put a 'fault' sign on the switch, and report the problem.

A number of risk control measures are used to reduce the likelihood of surfaces staying live. These include the use of fuses and Residual Current Devices (RCDs). Where such risk control measures are fitted or are a requirement of a safe system of work, they should always be used, and used in the manner specified. Employees are expressly forbidden to use nails or silver paper etc. to replace fuses (see also Portable Electrical Appliances below), and all appliances are to be fitted with a fuse in accordance with the following ratings:

- Up to 720 Watts – 3 Amp
- 720 Watts to 1200 Watts – 5 Amp
- Over 1200 Watts – 13 Amp

Electric Shock

The symptoms of electric shock include unconsciousness, stoppage of breathing, no pulse and possible contact burns. Treatment must not be given until the power supply has been switched off.

If the power supply cannot be switched off, do not touch the casualty. If the voltage is medium or low, stand on dry non-conducting material and use a dry stick, etc. to remove the casualty from the supply. If high voltage is present, wait until the apparatus has been isolated from the supply.

Always immediately summon the assistance of a trained first aider and evacuate the casualty to hospital as soon as possible. A copy of the placard "Electric Shock Action" is to be prominently displayed.

Electrical Appliances

In accordance with the Electricity at Work Regulations 1989 regular checking and correct maintenance of electrical equipment is to be carried out to minimise the risk of both electric shock and fire hazards. In addition, all employees are to carry out visual checks of electrical equipment before use and report damage when they find it. Examples of the sort of defects or damage commonly found include:

- Cracked plugs and missing screws.
- Worn or loose cables including exposed wires, taped joints.
- Damaged casings.
- Evidence of overheating.
-

Damaged equipment should be reported and not used until a competent person has repaired it.

To prevent fires through overheating of electrical equipment:

- Where possible, switch off electrical equipment when it is not in use.
- Use only suitably fused multi-socket extension cables.
- Do not cover electrical equipment that may get hot.
- Do not use fuses higher than the recommended rating.
- Do not use damaged electrical equipment.
- Do not store flammable materials near to any electrical equipment that gets hot or may get hot.

Wherever possible, risks associated with the use of electricity are to be eliminated. Cordless tools or tools which operate from a 110v supply system that is centre tapped to earth will eliminate or reduce the risk of injury and are to be used. Trip devices such as RCDs are to be used to ensure the current is promptly cut off if contact is made with any live part. Tools and equipment are to be suitable for the working conditions – DIY tools or domestic plugs are not designed to stand up to every day heavy work. If work is to be carried out in flammable atmospheres, appropriate specially designed (spark proof) electrical equipment is to be used and specialist advice sought where necessary.

Where mains leads to sockets may be damaged, they are to be positioned where they are least likely to be damaged, for example by running at ceiling height, or protected inside impact resistant conduit.

Regular testing and maintenance of all portable electrical equipment is to be carried out and all portable appliances are to receive formal visual inspections and earth bond/insulation testing at least annually. A register of all portable appliances is to be maintained, and appliances are to be identified with a sticker to confirm the last inspection date. Privately owned electrical equipment is not to be used unless it has been officially accepted for use and entered in the register.

Battery Storage, Charging and Use including Lithium-Ion

Storage

Spare lithium-ion batteries must be stored in a designated area that:

- Is cool, dry, and well-ventilated. Is separated from flammable materials, open flames, and extreme heat sources.
- Provides adequate containment in the event of battery leakage.

Spare lithium-ion batteries should be stored in their original packaging or a suitable container to prevent physical damage and short-circuits.

Avoid stacking or overcrowding batteries during storage to prevent unintended contact and potential damage.

Disposal and Recycling

Damaged, expired, or non-functioning lithium-ion batteries must be disposed of properly, and employees should not discard them in regular waste bins.

The Company will designate collection points for recycling and disposal of lithium-ion batteries in compliance with local regulations.

Incident Reporting

Employees and contractors are obligated to report any incidents, damage, or safety concerns related to lithium-ion batteries to their immediate supervisor or the safety officer. In case of any leakage, overheating, or fire-related incidents, follow the appropriate emergency response procedures.

Training

The Company will provide training and educational materials to employees to ensure they comprehend the safe use and storage of lithium-ion batteries. New employees and contractors will undergo training during onboarding, with periodic refresher training as needed.

Fire Safety

Risk Assessment

A fire safety risk assessment is to be completed for each operational site, in accordance with the Regulatory Reform (Fire Safety) Order 2005 and is or the Construction (Design and Management) Regulations 2015 (for building sites), taking into account the size and layout of the workplace, the work activities carried on, including any equipment and substances used, and the maximum number of persons (employees and non-employees) likely to be present at any one time.

Appropriate measures for detecting, warning of and fighting fire, taking into account the hazards associated with the work activities and premises, are to be provided to ensure the safety of employees in the event of a fire. A fire log is to be maintained and is to contain details of:

- Firefighting appliance and systems maintenance.
- Fire evacuation practices.
- Fire alarm maintenance and testing.
- Emergency lighting maintenance and testing.
- Escape route maintenance and checking.
- Fire safety training.

General Fire Precautions

- Never block fire escape routes or fire exits.
- Never wedge or prop open fire doors.
- Know what the fire alarm sounds like, the escape routes, and the assembly point.
- Know the evacuation procedure for any part of the Alternative Drainage.
- Know where the fire alarm buttons are, and the location of firefighting equipment.
- Minimise the risk of fire starting by:
- Controlling sources of heat or ignition.
- Not allowing build-up of possible fuels such as waste paper, packing materials, flammable liquids etc.
- Not allowing heat sources and fuels to come together.
- Smoking only in designated areas.
- Being alert to the threat of arson.

Action on Discovering a Fire

If any fire breaks out, sound the alarm.

Do not try to extinguish fire using firefighting equipment unless it is a small fire, and you have been trained to use the equipment required, and it is safe to tackle the fire.

Otherwise, leave the building or the location of the fire and report to the assembly area

Fire Action Procedures

The following fire action procedures are to be carried out by the Senior Person present:

- Upon discovering, hearing the fire alarm or being notified of a fire, the senior person present will telephone the Emergency Services by dialling 999.
- When the Exchange Operator answers, ask for the FIRE SERVICE and give the telephone number:
  please insert number here 01924 280080
- When connected to the Fire Service, state slowly and distinctly:
  - "THIS IS Alternative Drainage
  - PREMISES/SITE ADDRESS
  - WE HAVE A FIRE".
  - Do not replace the receiver until this information has been correctly acknowledged.
- Remove the Visitor's Book (where appropriate) and evacuate the building by the nearest available exit and proceed to the assembly point.
- Initiate a roll call for employees and visitors.
- Liaise with the Senior Fire Officer, giving information concerning:
  - Location of fire
  - Missing employees/visitors
  - Location of dangerous chemicals/substances
  - Location of services isolation points
  - Liaise with the Fire Officer before entering the building.
  - Ensure that all discharged fire extinguishers are replaced.

Vibration

Whole Body Vibration

Back damage can be caused by vibration from a vehicle or machine passing through the seat into the driver's body through the buttocks – known as whole-body vibration. Regular exposure to whole-body vibration over many months or years can lead to damage and back pain.

The factors that can cause or increase back pain include:

- Driving off-road too fast or over a rough route.
- Driving on badly paved surfaces in vehicles with poor suspension.
- Poor driving posture.
- Poor design of controls making them difficult to operate.
- Poor driver visibility making twisting and stretching necessary when driving.
- Other work activities that might put a strain on the back such as handling and lifting heavy objects.
- Personal factors such as the level of general fitness, being overweight, and the choice of leisure pursuits.

- To reduce the risks from whole-body vibration, all employees are to observe the following general precautions:
- Adopt an upright driving posture and ensure seats are adjusted to provide good lumbar support.
- Ensure tyre pressures are correct.
- Keep speed low when crossing uneven terrain.
- Steer the vehicle to avoid hitting objects and potholes.
- Report regular bouts of back pain as early as possible.
- Seek medical advice if they think exposure to whole-body vibration is harming them.
- Vehicles and machinery are to be adequately maintained, particularly suspension components, tyres and seats. Surface damage to traffic circuits is to be recorded and repaired where possible.

Hand Arm Vibration

Hand-arm vibration comes from the use of hand-held power tools and is the cause of significant ill health (painful and disabling disorders of the blood vessels, nerves and joints).

Hand-arm vibration is vibration transmitted from work processes into workers' hands and arms. It can be caused by operating hand-held power tools, such as road breakers, and hand-guided equipment, such as powered lawnmowers, or by holding materials being processed by machines, such as pedestal grinders.

At Alternative Drainage the risk from vibration is low however we will still ensure that we implement

where possible remove the use of vibrating tools:

- Identify risks arising from our work
- Implement control measures to reduce vibration; and
- Provide information and training

Lifting Operations and Lifting Equipment

In accordance with the Lifting Operations and Lifting Equipment Regulations 1998 all lifting equipment used at Alternative Drainage is to be marked with its safe working load and any appropriate information for its safe use. All lifting equipment is to be thoroughly examined and tested at least every 12 months, with records maintained accordingly. Lifting accessories such as slings, cradles etc. and equipment for lifting people is to be thoroughly examined at least every 6 months.

The following general precautions are to be observed when using any lifting equipment:

- Ensure the equipment, including attachments such as pallets, lifting points etc., is sufficiently strong, stable and suitable for the proposed use.
- Ensure the equipment is positioned or installed to prevent the risk of injury from the equipment or the load falling or striking people.
- Ensure the equipment is checked and serviceable before use and ensure it is used as intended. Care must be taken to ensure loads and attachments are secure, and equipment is not misused in any way.

Scissor Lifts

Scissor lists can be either fixed or portable and are used to transfer goods or people from one level to another. In warehouses they are commonly used in loading areas to assist in the loading and unloading of lorries.

Associated hazards include:

- Trapping of hands and feet at the closing scissor mechanism during lowering.
- Trapping between the undersides of the platform and the base frame or ground during lowering.
- Trapping of people against walls or other fixed objects.
- Trapping of people under the platform.
- Trapping of introduced extraneous material during raising or lowering, causing hazards to people nearby.

Scissor lifts are to be provided with the following safeguards:

- A clear notice fixed to it, specifying the safe working load and that people should not work under the platform unless it has been mechanically locked to prevent descent.
- Aprons or other guards to enclose the trapping hazards, or a tripping device below the level of the platform which will immediately stop the platform descending should an object, for example a person's foot be met during descent.
- Controls are to be of a hold-to-run type and an emergency stop button is to be provided at ground or floor level.
- Manually operated scotches or other equally effective means are to be provided to enable the lift to mechanically lock in a raised position when maintenance or repair work is necessary.
- Scissor lifts used as working platforms are to be provided with suitable fencing or gates to prevent people accidentally falling from the platform. Any gate fitted is to be at least 1m in height and be so arranged to return automatically to the closed position.

Forklift Trucks

Introduction

The use of lift trucks in the workplace is a major source of accidents. Common causes of accidents are through turning at speed, across a slope, or with the load elevated and through skylarking by unsupervised operators.

Lift trucks in use at Alternative Drainage are powered either by diesel, gas or electricity and each power source will give rise to additional hazards. Battery charging (release of hydrogen gas) and the use of battery acid, the silent running of some electric trucks, and the production of carbon monoxide in exhaust gases, electrical short circuits, manual handling, fires and explosion are all common hazards associated with the use of lift trucks.

Lift trucks may overturn or become unstable for a variety of reasons which may involve the load, the environment, the operator and the vehicle itself, for example:

- Travelling with load too high or at an incorrect tilt.
- Speeding.
- Harsh braking and cornering.
- Poor condition of tyres.
- Driving the wrong way up or down or across a slope (load incorrectly positioned).
- Collision with structures (overhead and low level), or other vehicles.
- Exceeding SWL (overloading).
- Travelling across uneven or unsound ground or flooring.
- Mechanical failure.

Other common hazards involved with the operation of lift trucks include passengers falling (these are not to be carried unless proper seating and restraint is provided) and loss of load.

No one is to be allowed to drive a lift truck unless he has been trained and authorised to do so or is undergoing formal training under supervision.

To prevent the possibility of lift trucks tilting or overturning all employees who supervise and/or operate a lift truck are to understand its basic characteristics, including what the limits of the truck are. Lift trucks are not to be loaded beyond their safe capacity. Furthermore, the weight of the counterbalance (the truck itself) is not to be increased in an attempt to lift heavier loads.

General Precautions

To ensure safe operation, all employees who operate lift trucks are to observe the following general precautions:

- If an operator is ill or for some other reason cannot operate a truck safely, the General Manager should be told.
- Passengers are not to be carried – unless a properly constructed position is provided.
- Particular care is to be taken when driving where there are pedestrians. It is the operator's job to avoid the pedestrians and the pedestrian's job to avoid the traffic. Where possible pedestrians will be segregated from where the lift trucks operate.
- The general rule of the road is KEEP TO THE LEFT. However, when driving between rows of machines or racks it is sometimes safer (if a clear view can be obtained) to keep to the centre of the gangway or aisle.
- Sound the horn at every potential danger spot but remember that sounding the horn does not give automatic right of way.
- Stop before doorways – sound the horn and go through slowly.
- Never run over cables or flexible pipes etc., that are on the floor unless they are suitably protected.
- Be careful when braking, as braking violently when loaded may cause the load to fall off or the truck to tip.
- Where possible drive with the forks lowered to within 150mm of level ground and the mast tilted slightly back. Because of the danger of overturning, the truck should not be driven with the load elevated for longer than is necessary.
- When a high load restricts forward vision, drive in reverse, except when going up an incline.
- Do not pick up a load if someone is standing close to it.
- Stop people from walking underneath the load.
- If the load appears to be unsuitable or the pallet unsound it should be left alone, and its condition reported to supervisor.
- When loaded, always travel down slopes with the forks facing uphill and up slopes with the load in front, taking extra care if vision is obstructed.
- When unloaded travel down slopes with forks facing downhill. At the bottom of slopes the forks may have to be slightly raised.
- When descending slopes travel slowly.
- A truck should not be left unattended on a gradient. If in an emergency it has to be parked on a gradient, chock the wheels.
- When leaving the truck even for a few seconds make sure that it is in neutral, the parking brake applied, and the forks lowered.
- On completion of work the truck is to be parked in its allotted parking area, forks fully lowered and tilted forward, the engine switched off, the parking brake applied and keys if fitted, returned to the office.
- As well as following the manufacturer's instructions as to inspection, maintenance and servicing, checks are to be made at the beginning of each shift of such things as tyres and batteries. A weekly

maintenance (after 50 running hours) is also to be made. Faults or defects found are to be rectified immediately or reported.

- All lift trucks and accessories are to be thoroughly examined and reports produced at least once every six months.

Manual Handling

Definitions

The Manual Handling Operations Regulations 1992, as amended in 2002 ('the Regulations') apply to a wide range of manual handling activities, including lifting, lowering, pushing, pulling or carrying. The load may be either inanimate - such as a box or a trolley or animate - a person or an animal. This guidance gives useful practical advice for employers, managers, safety representatives and individual employees on how to reduce the risk of injury from manual handling

A load is defined as any item or object that is being transported or supported, including a person or animal.

Injury from manual handling operations does not include injury caused by the inherent properties of substances that may spill from or contaminate the surface of the load. Common injuries include sprains and strains, amputations, cuts and bruises, disc and muscle injuries.

General safe manual handling procedures include storing heavy objects low down in racks, keeping high racking for light objects, adopting the correct lifting procedure, wearing the correct clothing and PPE, and using mechanical assistance wherever possible. In addition to the information given below regarding good handling, all employees are reminded not to move heavy or awkward loads unless:

- Mechanical handling aids can be used, or
- Assistance from another person is available, and
- The correct manual handling techniques are used.
- A specific risk assessment is to be carried out and recorded for all manual handling tasks where there is a risk of injury.

The Regulations require employers to:

- **Avoid** the need for hazardous manual handling, so far as is reasonably practicable;
- **Assess** the risk of injury from any hazardous manual handling that can't be avoided; and
- **Reduce** the risk of injury from hazardous manual handling, so far as is reasonably practicable.

Our main aim at Alternative Drainage is to remove the need for Manual Handling altogether however is some circumstances this cannot be achieved. In this occurrence we will employee good handling techniques.

Good Handling Techniques

Some important points for safe handling using a basic lifting operation as an example:

- Plan the lift. Where is the load to be placed? Use appropriate handling aids if possible. Is help required with the load? Remove obstructions such as discarded wrapping materials. For a long lift, such as floor to shoulder height, consider resting the load mid-way on a table or bench in order to change grip.

- Position the feet. Feet apart, giving a balanced and stable base for lifting (tight skirts and unsuitable footwear make this difficult). Leading leg as far forward as is comfortable.
- Adopt a good posture. When lifting from a low level, bend the knees. Do not kneel or over flex the knees. Keep the back straight (tucking in the chin helps). Lean forward over the load if necessary, to get a good grip. Keep the shoulders level and facing in the same direction as the hips.
- Get a firm grip. Try to keep the arms within the boundary formed by the legs. The best position and type of grip depends on the circumstances and individual preference, but it must be secure. A hook grip is less tiring than keeping the fingers straight. If there is a need to vary the grip as the lift proceeds, it should be done as smoothly as possible.
- Keep close to the load. Keep the load close to the trunk as long as possible. Keep the heaviest side of the load next to the trunk. If a close approach to the load is not possible, slide it closer to the body before trying to lift.
- Don't jerk. Lift smoothly, keeping control of the load.
- Move the feet. Don't twist the trunk when turning to the side.
- Put down, and then adjust. If precise positioning of the load is necessary, put it down first, and then slide it into the desired position.
- All employees are to report any manual handling tasks where it is not possible to meet the above requirements, and any physical condition that affects their ability to lift safely.

Noise

Introduction

Regulations for noise changed in April 2006, major change were the decibel action levels being reduced by 5 Db each, The new regulations 2006 are now in force, they have changed the action levels the first action level will be 80Db (the noise equivalent of a busy high street) and the second action level of 85Db this may affect future work, as the power tools and generators used on site will probably exceed 85Db, Therefore we must look at hiring quite generators, ensure employees are wearing ear defence with power tools, a noise assessment may be required to measure the noise levels.
In conducting a risk assessment, the employer shall assess the levels of noise to which workers are exposed by means of:

- Observation of specific working practices
- Reference to relevant information on the probable levels of noise corresponding to any equipment used in the working conditions
- If necessary, measurement of the level of noise to which his employees are likely to be exposed.

Exposure limit values and action values;

The lower exposure action values are:

- A daily or weekly personal noise exposure of 80dB (A) and

The upper exposure action values are:

- A daily or weekly personal noise exposure of 85dB (A) and

The exposure limit values are:

- A daily or weekly personal noise exposure of 87dB (A) and

An employer must take the following action:

- Provide your employees with hearing protectors if they ask for it and their noise exposure is between the lower and upper exposure action values,
- Provide your employees with hearing protectors and make sure they use them properly when their noise exposure exceeds the upper exposure action values,

- Identify hearing protection zones, i.e. areas where the use of hearing protection is compulsory, and mark them with signs if possible,
- Provide your employees with training and information on how to use and care for the hearing protectors,
- Ensure that the hearing protectors are properly used and maintained.

The company policy on noise safety is to take all reasonable steps to reduce the risk to all parties at work in accordance with the Control of Noise at Work Regulations 2005. When Alternative Drainage act as principal contractor, Alternative Drainage would assess if noise is a potential problem and if an assessment is required. As a general guide an assessment will only be undertaken when noise is identified as a specific problem in the pre-tender health and safety plan.

We do appreciate that a competent person, who understands the Control of Noise at Work Regulations and HSE guidance on assessments, may only undertake an assessment. An initial, estimated assessment can be made either by using manufacturers' data or other reliable information, which may be available. At this stage the results could indicate that some workers may require personal protective equipment straight away.

Personal Protective Equipment (PPE)

Introduction

The requirements for protective clothing and equipment should be identified by risk assessments and in accordance with the Personal Protective Equipment at Work Regulations 1992 (as amended 2022). These will include the requirement to protect the hearing, hands, eyes, feet and body from a variety of hazards. Where employees are using PPE they are to:

- Use the PPE as instructed.
- Maintain it in an efficient state.
- Store it correctly when not in use.
- Report any defect or loss as soon as possible.
- Appropriate PPE is to be readily available in accordance with the risk assessments.
- PPE is normally only to be used as a ‘last resort’ where risks cannot be controlled by other means.
- Provision of PPE, information, instruction, and training to limb (b) if required.

Types of PPE

The following PPE is to be provided where hazards exist:

- **Hard hats** – risk of injury through falling objects, particularly when working near scaffolding, lifting plant and cranes.
- **Footwear** – to prevent injury from falling objects or from over-run of lift trolleys, where special slip-resistance is required, in flammable atmospheres where the build-up of static electrical charges creates a risk of explosion, where there is a risk of sharp objects piercing the sole.
- **Goggles and safety spectacles** – risk of injury through flying objects (such as using a nail gun or abrasive wheel), sparks (disc-cutting), or handling chemical substances such as acids, alkalis and other corrosive or irritant substances, during welding operations where intense light may otherwise cause damage to the eye.
- **Outdoor clothing** – warm clothing when working outdoors in low temperatures or in cold-stores, protection against intense heat and/or flame-retardant clothing when working with welding

equipment, cut-resistant clothing when using a chain saw, or life-jackets when working near deep water.

- **High visibility clothing** – banks men, signallers, personnel involved in lifting operations, when working in the vicinity of moving traffic, and visitors.
- **Gloves** – handling chemical substances where there is a risk of dermatitis or of damage to skin tissue, during site maintenance and outdoor work, where there is a risk of cuts or abrasions, where articles may be hot, cold or slippery, where there is a risk of electrical shock, or when using vibratory tools.

Suitable and adequate information, instruction, training and supervision are to be provided for all employees to ensure PPE is properly used, stored and maintained.

Respiratory Protective Equipment (RPE)

RPE falls into two major classes:

- Equipment, such as facemasks with filters and powered respirators, which take in contaminated air from the work area and clean or filter it before it is inhaled (respirators).
- Equipment such as air-fed hoods and self-contained breathing apparatus, which deliver uncontaminated air from an independent source to the wearer.

A risk assessment is to be carried out to determine the type of RPE to be used taking into account the hazardous substance form, properties, and the work being done.

A thorough examination of all RPE (except disposable RPE) is to be carried out at least once a month. Records of examination are to be kept and be readily available on request for inspection by employees or their representatives, or by Inspectors appointed by the relevant enforcing authority or employment medical advisors. Records of thorough examinations are to be kept for at least five years.

All users of RPE are to receive theoretical and practical training sufficient to ensure proper and effective use of the RPE. This is to include how to inspect the equipment before use, and how to wear, clean and store the equipment. All users are to know the limitations of the RPE, the system for reporting defects and obtaining replacements.

Pressure Vessels and Gas Bottles

General Precautions

A written scheme for the periodic examination of all installed or mobile pressure systems is to be drawn up and implemented. All such systems are to be examined annually and a written report of the examination held on file. Systems that require repairs or further examination are not to be used until satisfactory examinations have been carried out. The date for further examination is to be visibly, legibly and indelibly marked onto mobile pressure systems.

Care is to be taken when using or storing gas bottles and cylinders. The following precautions are to be taken:

Treat every cylinder or gas bottle as full and handle carefully. Do not drop or slide them when loading and unloading.
Use a carrier for large cylinders and secure the cylinder to it.
Store and secure cylinders and bottles in an upright position in the cage.
Store all cylinders and bottles so they cannot fall.
Keep all cylinders away from ignition sources, the sun, and flammable materials.
Avoid damage to valves and fittings, and do not use them for carrying.
Keep valves and fittings free from oil and grease.
Open valves slowly, and close sufficiently to shut off gas. Do not use force.
Report any damage or defects immediately.

Provision and Use of Work Equipment

Introduction

The Provision and Use of Work Equipment Regulations 1998 require extensive precautions to be taken to ensure the continued safety of employees whilst operating or maintaining work equipment of all types. Only competent persons who have been trained and are adequately supervised are permitted to use plant and machinery.

Only competent person should carry out maintenance work on the machines and equipment's. Isolation procedure should be implemented where necessary.

All plant and machinery operators are reminded that it is their responsibility to:

Work and behave safely at all times.
Obey all company health and safety rules.
Ensure machinery is properly guarded when used.
Ensure the working area is kept clean, clear and tidy.
Know what to do in an emergency.
Take action following an accident or near miss.

The following general precautions are to be observed by all employees operating plant and machinery:
Report all defects or faults with machinery as soon as possible.
Always wear the correct PPE and suitable clothing, remove jewellery, tie hair back and fasten clothing correctly.
Always ensure the machine is switched off, isolated and immobilised before carrying out cleaning or maintenance operations.
Always use the correct tool for the job, ensure the tool is in good condition, and use it the right way.

Hired Equipment

All plant and equipment hired for use for Alternative Drainage operations is to be thoroughly checked for serviceability before use. All employees are to ensure they are fully conversant with operating controls and procedures and have received instruction before using hired equipment.

Employees who have responsibility for the collection or receipt of hired equipment are to ensure they are in possession of operating manuals, service and maintenance details, and records of thorough examination and testing where applicable, before accepting the equipment.

New Plant and Machinery

Before being used for the first time, all plant and machinery at Alternative Drainage is to be:

Properly installed and commissioned with certification obtained from the supplier or installer where appropriate.
Subject to a risk assessment to identify hazards and appropriate control measures.

Prior to first use, adequate information, instructions and training is to be given to plant and machinery operators, with regard to their experience and/or qualifications.

Hand Tools

The following general precautions are to be observed by all employees who use hand tools:

Hammers – do not use with split, broken or loose shafts, and worn or chipped heads.
Files - these should have a proper handle and never be used as levers.

Chisels - the cutting edge should be sharpened to the correct angle; the head of cold chisels must not be allowed to spread to a mushroom shape - grind off the sides regularly.
Screwdrivers - never use them as chisels, and never use hammers on them - split handles are dangerous.
Spanners - avoid splayed jaws and scrap any that show signs of slipping, do not improvise by using pipes, etc., as extension handles.

Cutting Tools

In accordance with the Provision and Use of Work Equipment Regulations 1998 all operations involving the use of equipment for the extraction of persons from places or objects they have fixed themselves to are to be subject to a risk assessment and subsequent permit to work system. Equipment is to be used only for operations and under conditions for which it is suitable. Suitable in this case means suitable in any respect, which it is reasonably foreseeable, will affect the health or safety of any person.

Examples of this type of work involve the cold cutting of metals or stone using equipment such as hydraulic shears or pneumatic chisels.

The following general precautions are to be observed prior to each operation starting to ensure the health and safety of the person carrying out the task and any person being extracted:

Can the job be carried out in a different way not involving the use of cutting equipment? If locks are involved, where are the keys? Can people be persuaded to release themselves?

- Ensure proper authorisation is obtained for each task.
- Ensure all employees involved are trained and experienced and adequate numbers are provided for each task.
- Ensure appropriate selection of tools with regard to the power source, level of penetration required, danger from flying particles and heat generated, contact with parts of the body, and consideration of manufacturer's specifications for the tools and equipment.
- Ensure the risk of physical violence is controlled.
- Ensure the risk of fire and explosion is controlled.
- Ensure the risk of falling from height or into water or other hazardous place is controlled.
- Ensure the risks from exposure to hazardous substances are controlled.
- Ensure the appropriate selection and correct use of personal protective equipment for employees and the person being released.
- Ensure adequate first aid personnel and equipment are provided, including a means of emergency evacuation.

Training and Capability

All Safety, Health & Environment training required as an element of competency and / or to satisfy a legal requirement will be provided.

Allocation of tasks

Managers will take account of an employees' capability and their competence when tasks are allocated to them.

Provision of Induction Training

All new employees will receive Safety, Health & Environment induction training that explains:

- The Safety, Health & Environment responsibilities associated with their position and role within the Company,
- Any specific hazards and controls required in relation to their role,

- Specific Safety, Health & Environment information and arrangements relevant to their position
- Emergency information such as the location of fire exits, first aid kits etc.

The new starter SHE Induction shall be signed by the relevant Manager and / new starter to ensure that the above is satisfied.

The completed checklist shall be held within the company training file and relevant contact details in the personnel file

Provision of Specific SHE Training

As part of the induction and annual appraisal arrangements, the requirements for Safety, Health & Environment related training of all new and existing employees must be assessed by their Manager.

Where an individual is exposed to new or increased risks then their Manager will be responsible for ensuring that they receive appropriate Safety, Health & Environment training, including when they are: -

- Being transferred or promoted in to a new position.
- On the introduction of new work equipment or a change of use of existing work equipment.
- On the introduction of new technology.
- On the introduction of a new system of work or a change in an existing system or work.
- On changes in personal circumstances – illness or disability.

SHE will also identify training needs as a result of changes in legislation and these needs will be communicated to appropriate Managers.

Training of Lift Truck Operators

The Health and Safety Commission Approved Code of Practice recommends that lift truck operators should be over 18, have good vision and general health, and not be known drug users. The training of operators is to be properly conducted and recorded for all employees who operate lift trucks. Training is to include the following three stages:
Basic training – the basic skills and knowledge required for safe operation. The safe use of all controls, maintenance operations and operator's safety checks, truck capabilities and SWL, practice in maneuvering on the level and on slopes with and without loads, recognition and actions on unfamiliar and emergency operations.
Specific training – knowledge of the workplace and experience of any special needs and specific handling attachments.
Familiarisation training – on the job under close supervision by a suitably qualified person.
Employees who operate lift trucks are to undergo refresher training at least once every three years.

Temporary Employees

Temporary workers and their employers (or employment agencies) are to be informed of any special skills, qualifications or requirements that are needed to enable them to function safely and without risk to health, prior to their starting work. Any requirement for health surveillance is to be similarly notified.

Induction training (as above) is to be carried out for all temporary employees.

Transport Safety

General Precautions

Operations carried out by Alternative Drainage personnel are potentially high-risk due to vehicles attempting to manoeuvre in relatively small areas and the numbers of pedestrians that may be present. During site operations all traffic is to follow marked circuits and parking is only to take place in authorised areas. In particular, emergency egress

points are to be kept clear. Where applicable, parking bays and walkways are to be clearly marked with barriers erected to separate people and vehicles.

All employees are to observe the following precautions for safety with moving vehicles:

Do not walk or stand in areas or roadways designated for vehicle use.
Use pedestrian routes when these are available.
Treat vehicles using on-site roadways as vehicles on the public highway.
Do not ride in or on a vehicle unless it is fitted with passenger accommodation.

There are particular problems with reversing vehicles, especially if the driver has a restricted view of the back of the vehicle:

- Minimise the need for vehicles to reverse.
- Have someone watch the vehicle back.
- Never stand behind a vehicle when it is reversing.

The following precautions are to be observed whilst refuelling or recharging vehicles:

Ensure refuelling and recharging takes place in well-ventilated areas.
Keep sources of heat away from refuelling or recharging points.
No smoking.

A register of all vehicles operated by Alternative Drainage is to be maintained to ensure they are regularly serviced and in a roadworthy condition.

Road Safety

All employees engaged on driving operations are to hold a current full licence for the class of vehicle being driven, and are to have received vehicle familiarisation training as may be required. Appropriate records are to be maintained to ensure this.

Al drivers are reminded that they are to conform to the requirements of the Highway Code and Road Traffic Legislation, and to drive in a professional and defensive manner so as to avoid road traffic accidents. Particular emphasis is to be placed on ensuring the safety of all passengers carried and that loads are properly secured.

Company Vehicles

At a very minimum it is suggested that if vehicles are regularly parked on the public highway that the driver should purchase and maintain some form of anti-theft device and also remove his radio, radio/telephone etc., from the vehicle. Similar care should also be exercised when parking the vehicle on daily duties if it is to be left for a long period unattended. Vehicles fitted with alarm systems and immobilisers should be active at all times.

Workplace Health Safety and Welfare

Housekeeping

Poor housekeeping creates many hazards at work. All employees are reminded not to create hazards for other people by working in ways that result in a workplace being untidy, overcrowded or obstructed. The following general precautions are to be taken:

Properly dispose of rubbish and scrap in the correct receptacles.
Keep gangways and aisles clear.
Clean up spilt liquids promptly.
Keep benches and work tops uncluttered.

Ensure access to fire equipment is not obstructed.
Keep exits, entrances and stairways free from obstructions.
Stack storage items carefully so that they cannot fall, and place heavier items at lower levels.
Report damage or defects in walkways, doors, lighting etc.
Keep warning notices clear.
Operate a "clean-as-you-go" system of work.

In addition, all employees are reminded not to create hazards for other people by working in ways that result in an unhygienic or dirty workplace. This is particularly important where there is a risk of infection, or chemicals are being used which are hazardous to health.

Lone Working

Lone workers are those who work by themselves without close or direct supervision. They are found in a wide range of situations including where people work outside of normal hours such as in warehouse operations or security.

In the event of a situation arising where Alternative Drainage employees are required to work alone, the following general hazards are to be addressed in conducting risk assessments prior to work starting:

Does the workplace present a special risk to the person?
Can one person safely handle all the equipment involved in the work?
Is there a risk of violence?
Are women especially at risk if they work alone?
Are young workers especially at risk if they work alone?
Is the person medically fit and suitable to work alone?
What training is required to ensure competency in safety matters?
How will the person be supervised?

Procedures are to be put in place to monitor lone workers to ensure they remain safe. These may include:

Supervisor's periodically visiting and observing people working alone.
Regular contact between the lone worker and supervisor using either a telephone or radio.
Automatic warning devices that operate if specific signals are not received periodically from the lone worker.
Other devices designed to raise the alarm in the event of an emergency and which are operated manually or automatically by the absence of activity.
Checks that a lone worker has returned to their base or home on completion of a task.

Actions to deal with persons who becomes ill, has an accident, or other emergency

Slip and Trip Hazards

All employees are to adopt the following precautions for avoiding slips, trips and falls whilst working on the level:

Walk on designated walking routes; do not take short cuts.
Wear appropriate footwear at work, high heels and shoes with smooth soles can be dangerous.
Avoid walking on uneven surfaces, even if this means going a longer way round.
Avoid areas where there are spills of oil and water.
Avoid poorly lit areas.
If working at height, all employees are to ensure appropriate access equipment is used. Swivel chairs and tables are never appropriate access equipment. What is appropriate will depend on the task but could be anything from a hop-up to a large ladder or scaffold.

Welfare Facilities

In accordance with the Workplace (Health, Safety and Welfare) Regulations 1992 the local manager is responsible for ensuring the provision and administration of welfare facilities, including:

- Sanitary conveniences and washing facilities.
- Drinking water.
- Accommodation for clothing and facilities for changing.
- Facilities for rest and to eat meals.

Employees who find problems with the welfare facilities provided are to report them as soon as possible.

Office Health and Safety

All offices are to be maintained in a tidy condition, in particular:

- Do not allow trailing leads to create tripping hazards.
- Clear up spills immediately.
- Replace or repair worn floor coverings.
- Do not block passageways.
- Close filing cabinet drawers after use and load heavier files in lower drawers.
- Empty waste paper bins daily.

Display Screen Equipment

Alternative Drainage are committed to comply with all relevant duties and responsibilities as laid down within the Health and Safety (Display Screen Equipment) Regulation 1992. (D.S.E).

Operators of D.S.E. will be given every opportunity to discuss difficulties experienced whilst they are using the equipment.

It is Company Policy to offer employees who use D.S.E. as a major part of their working day, the opportunity to undergo an eyesight inspection. The Company, at an optician of company choice, will pay for the inspection. If the examiner concludes that spectacles are required specifically for use to view the D.S.E. screen the Company will offer to pay the cost of a basic pair of spectacles or, if the user so wishes, a contribution to the cost of a non basic pair of spectacles.

It must be stressed that eye defects which may be identified during the course of the examination which are not D.S.E. related will not be eligible for company assisted funding.

Where workstation deficiencies are identified during the course of the D.S.E. risk assessment plans will be put in place to remedy the situation as appropriate.

In line with Regulation 4 of the D.S.E. Regulations, where practical, work routines will be structured to ensure regular breaks for non-D.S.E. work are included within the work schedules.

With regard to Regulation 4 and the and the requirements for workstations, every effort will be made by Alternative Drainage to ensure that workstations meet the guidelines detailed within the schedule, with particular reference to lighting, absence of glare, temperature, ventilation and seating.

The following general precautions are to be taken by all employees using computers in Alternative Drainage:

Type while in the correct posture, for example, without having wrists at an acute angle and with the elbows roughly level with the keyboard.

Take frequent short breaks during extended periods of keyboard use, 10 minutes every hour to complete other tasks such as filing etc.
Look out for early symptoms of Upper Limb Disorders, including “tingling” in the fingers after keyboard use, aches and pains in the wrists and arms. Report any symptoms.
Use an adjustable chair set up properly to provide back support, and at the correct height.
Position the screen properly to ensure there is no glare or reflection, it is at “eye height” and it is not too far away or too near.
If spectacles are needed in order to see the screen clearly, wear them all the time the screen is used.
Eyes should be tested regularly and in accordance with the Health and Safety (Display Screen Equipment) Regulations 2002, eye and eyesight tests, spectacles for use with DSE will be provided free of charge to all “users” of such equipment.

Violence

Verbal abuse, threats or assaults can cause stress and anxiety as well as physical injury. All employees should report any incident of this nature, or any suspicious activity, and are reminded to adopt a non-confrontational attitude when dealing with clients or other individuals.

Smoking Policy

Alternative Drainage operates a no smoking policy in the workplace. Employees who wish to smoke may do so only in designated smoking areas, and are to ensure smoking materials are properly extinguished.

Construction Design & Management Regulations-related Roles

The Company and relevant employees may undertake any of the roles below.

In some cases, multiple roles may be undertaken.

Principal Contractor

'Contractor' means any person (including a client, principal contractor or other person) who, in the course or furtherance of business, carries out or manages construction work.

The Principal Contractor is responsible for:

- Satisfy ourselves that the client is aware of his/their duties and that a Principal Designer has been appointed,
- Ensure the HSE has been informed of the project via **F10,**
- Ensure the construction phase is properly planned, managed and monitored, adequately resourced and site management is appropriate and competent,
- Ensure that contractors employed on the project are informed of the minimum amount of time they will be allowed for planning and preparation before they begin on site,
- Ensure contractors receive adequate information about the project,
- Arrange for the control, co-ordination and co-operation between all contractors involved in work on the construction site,
- Ensure the Construction Phase Health and Safety Plan is prepared before work commences, developed, implemented and kept up to date as the project progresses,
- Satisfy ourselves that designers and contractors are competent,
- Ensure welfare facilities are provided from the start of the construction phase,
- Ensure that only authorised persons have access to the construction site and that effective, measures are taken to prevent unauthorised entry at all times,
- Prepare and enforce site rules,
- Inform all contractors of those parts of the safety plan that effect their operations,
- Liaise with the Principal Designer on design carried out during the construction phase,
- Provide the Principal Designer with any information that is required for inclusion in the Health and Safety File**,**
- Ensure that the workforce have been adequately inducted onto site,
- Ensure the workforce are consulted re health and safety matters,
- Display in a prominent position on site, the F.10, Health & Safety at work law poster and a copy of the employer's liability insurance,
- Ensure that all injuries, diseases, dangerous occurrences and near misses are recorded and reported to the HSE where necessary,
- Provide induction and methods of ensuring workers are adequately trained and supervised.

Subcontractors

'Contractor' means any person (including a client, principal contractor or other person) who, in the course or furtherance of a business, carries out or manages construction work.

When we are appointed as contractor, we will: -

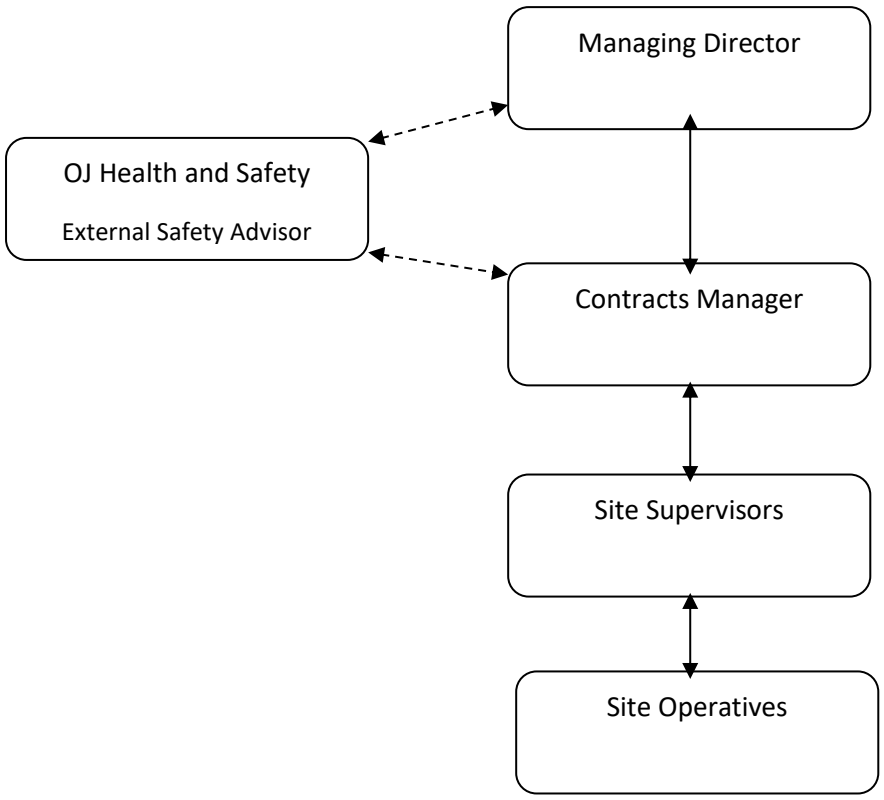
- Plan, manage, supervise and monitor our work and that of our workers to ensure it is carried out safely and that health risks are addressed,
- Check that the client is aware of their duties,

- Ensure that only competent contractors, suppliers and workers are employed,
- Comply with the Principal Contractors instructions relating to matters of health and safety,
- Co-operate and co-ordinate our activities with the Principal Contractor and other Contractors who may be affected by our operations,
- If we produce a design, we acknowledge our duties as a designer,
- Acknowledge our duties with regard to health and safety on site,
- Ensure our workers are inducted onto site,
- Ensure suitable welfare facilities are provided from the start of the project,
- Provide method statements, risk and **COSHH** assessments as required,
- Inform all our employees and sub-contractors of those details in the Safety Plan that may affect their operations and any safety rules they are required to comply with,
- Provide the Principal Contractor with evidence of all training our employees have received,
- Promptly provide the Principal Contractor with any information that is required for inclusion in the Health and Safety File,
- Assist the Principal Contractor to ensure that only authorised persons have access to the construction site where the company's operations are taking place,
- Ensure that our workforce is properly consulted on health and safety matters,
- Ensure that all injuries, diseases and dangerous occurrences that are reportable under **RIDDOR 2013**, are promptly reported to the Principal Contractors site management.

The Subcontractor is responsible for:

- Giving advice on risks arising from their work
- Complying with the rules contained within Health &Safety plan
- Providing information on accidents, ill Health and dangerous occurrences for the file
- Providing information to employees
- Subcontractors have a duty to ensure the Principal Contractor is aware of any information that might affect the Health and Safety of workers or members of the public.

Construction design and Management Roles



Managing Director

The managing director of Alternative Drainage will undertake the following role to ensure Alternative Drainage comply with the Construction Design and Management Regulations 2015 (CDM)

- Ensure the Health and Safety Inspectorate has been informed via F10 form notification
- Ensure Principal Designer has been appointed for the project
- Ensure a Construction Phase Health and Safety Plan (CPHSP) has been adequately prepared
- Ensure the CPHSP is properly planned, managed, monitored and adequately resourced throughout the project

Contracts Managers

Contracts managers of Alternative Drainage will undertake the following roles to ensure we comply with all the requirements under CDM

- Will ensure that all Contractors on site have completed and Alternative Drainage sub-contractor questionnaire and meet all the health and safety requirements and are competent to carry out their tasks.
- Ensure site co-operation, communication is in place including pre start meetings (including contractors) safety liaison meetings, progress & Schedule meetings.
- Ensure all contractors are informed about every aspect of the project and they have completed adequate risk assessment and method statements for the task they will undertake.
- Ensure CPHSP, F10, Health and Safety Law Poster and Employers Liability Insurance is all displayed in a prominent position on site before any work commences.
- Provide full site welfare provisions and ensure all in working order at commencement of project.
- Prepare of site rules and ensure that they are in place at beginning of project.
- Ensure all procedures with CPHSP are in place at beginning of the project and that other contractors are aware of sections of the plan effecting their work.
- Liaise with Principal Designer on all matters relating to matter of project.
- Provide Principal Designer with all information needed for health and safety file.
- Carryout Site induction to all Contractors working on site.
- Ensure all injuries, diseases, dangerous occurrences and near misses are recorded and reported to HSE where necessary

Site Supervisors

- Ensure all site rules are followed by all on site and no unauthorised access to site is gained and maintain good security
- Carryout Site inductions to all visitors to site before entry allowed.
- Ensure all injuries, diseases, dangerous occurrences and near misses are immediately reported to contracts manager
- Ensure all other contractors and Alternative Drainage operatives abide be all site safety rules and their safe systems or work.

Safety Advisor

- Carryout monthly site health and safety inspections and ensure all problems are reported to contracts managers
- Advise site supervisors and contracts managers on health and safety matters
- Be available for accident investigation if required.

Control of Contractors

The company has a responsibility for the actions of contractors who are working for Alternative Drainage and all contractors are to be made aware of and comply with the health and safety policy. No contractors are to be employed until they have completed our subcontractor assessment form. The questionnaires is to request the following

- A health and safety policy.
- Risk assessments and safe systems of work including method statements and permits to work as may be required.
- Relevant training records for all employees
- Adequate health and safety resources including competent persons and safe plant and equipment.
- Insurance cover relevant to work completed.
- Any other relevant information.

Production of Construction Phase Health and Safety Plan

1.1 General Project Information

1.1.1 Design Team

1.2 Description and Nature of Work

1.3 Organisation Responsibility

1.4 List of Responsible Persons

1.5 Useful Contacts

1.6 Training

1.7 Setting Standards

1.8 Information for Contractors

2.0 Selection Procedures

3.0 Communications and Co-operation

4.0 Activities with Risks to Health and Safety

5.0 Overlap with Clients Undertakings

6.0 Emergency Procedures

7.0 Reporting of RIDDOR Information

8.0 Welfare

9.0 Information and Training for People on Site

10.0 Consultation with People on Site

11.0 Site Rules

Alternative Drainage

Health And Safety Policy

12.0 Health and Safety File

13.0 Arrangements for Monitoring Project Review

Site Forms

2.0 Method Statements

3.0 Risk Assessments

4.0 Fire Safety Plan

5.0 Traffic Routes

6.0 Contract Appraisals

7.0 Statutory Inspections - Places of Work

8.0 Statutory Inspections - Work and Lifting Equipment

9.0 Statutory Inspections - Temporary Electrical Equipment

10.0 Personal Protective Equipment and Clothing Register

11.0 Disciplinary Diary

12.0 Induction Procedure and Site Rules

13.0 Training Certificate Records

14.0 Site Attendance Log

15.0 Minutes of safety Meetings

16.0 Safety Consultants Reports

17.0 Certificate of Employers Liability Insurance

Work in Confined Spaces

This document is to comply with the necessary action to meet the requirements of the Confined Spaces Regulations 1997.

It is also to be a useful source of information to anyone involved in carrying out work in confined spaces.

Confined spaces can be deadly

A number of people are killed or seriously injured in confined spaces each year in the UK. This happens in a wide range of industries, from those involving complex plant to simple storage vessels. Those killed include not only people working in the confined space but those who try to rescue them without proper training and equipment.

What is a confined space?

It can be any space of an enclosed nature where there is a risk of death or serious injury from hazardous substances or dangerous conditions (e.g. lack of oxygen).

Some confined spaces are fairly easy to identify, e.g. enclosures with limited openings:

storage tanks;

silos;

reaction vessels;

enclosed drains;

sewers.

Others may be less obvious, but can be equally dangerous, for example:

open-topped chambers;

vats;

combustion chambers in furnaces etc.;

ductwork;

unventilated or poorly ventilated rooms.

It is not possible to provide a comprehensive list of confined spaces. Some places may become confined spaces when work is carried out, or during their construction, fabrication or subsequent modification.

What are the dangers from confined spaces?

Dangers can arise in confined spaces because of:

- A lack of oxygen.

  This can occur:

  - where there is a reaction between some soils and the oxygen in the atmosphere;
  - following the action of groundwater on chalk and limestone which can produce carbon dioxide and displace normal air;
  - in ships' holds, freight containers, lorries etc. as a result of the cargo reacting with oxygen inside the space;
  - inside steel tanks and vessels when rust forms.

- Poisonous gas, fume or vapour.

  These can:

  - build-up in sewers and manholes and in pits connected to the system;
  - enter tanks or vessels from connecting pipes;
  - leak into trenches and pits in contaminated land, such as old refuse tips and old gas works.

- Liquids and solids which can suddenly fill the space, or release gases into it, when disturbed. Free flowing solids such as grain can also partially solidify or 'bridge' in silos causing blockages which can collapse unexpectedly.
- Fire and explosions (e.g. from flammable vapours, excess oxygen etc.).
- Residues left in tanks, vessels etc., or remaining on internal surfaces which can give off gas, fume or vapour.

- Dust may be present in high concentrations, e.g. in flour silos.
- Hot conditions leading to a dangerous increase in body temperature.

Some of the above conditions may already be present in the confined space. However, some may arise through the work being carried out, or because of ineffective isolation of plant nearby, e.g. leakage from a pipe connected to the confined space. The enclosure and working space may increase other dangers arising through the work being carried out, for example:

- machinery being used may require special precautions, such as provision of dust extraction for a portable grinder, or special precautions against electric shock;
- gas, fume or vapour can arise from welding, or by use of volatile and often flammable solvents, adhesives etc.;
- if access to the space is through a restricted entrance, such as a manhole, escape or rescue in an emergency will be more difficult (see Emergency procedures).

What the law says

You must carry out a suitable and sufficient assessment of the risks for all work activities for the purpose of deciding what measures are necessary for safety (The Management of Health and Safety at Work Regulations 1999, regulation 3). For work in confined spaces this means identifying the hazards present, assessing the risks and determining what precautions to take. In most cases the assessment will include consideration of:

- the task;
- the working environment;
- working materials and tools;
- the suitability of those carrying out the task;
- arrangements for emergency rescue.

The HSE's free leaflet Five steps to risk assessment will be used as a guide although we may need to appoint a competent person to help manage the risks and ensure that employees are adequately trained and instructed (The Management of Health and Safety at Work Regulations 1999, regulation 7).

If an assessment identifies risks of serious injury from work in confined spaces, such as the dangers highlighted above, the Confined Spaces Regulations 1997 apply. These regulations contain the following key duties:

- avoid entry to confined spaces, e.g. by doing the work from outside;
- if entry to a confined space is unavoidable, follow a safe system of work; and
- put in place adequate emergency arrangements before the work starts.

These duties, and what is needed, are further described in this document.

Avoid entering confined spaces

Need to check if the work can be done another way so that entry or work in confined spaces is avoided. Better work-planning or a different approach can reduce the need for confined space working.

Ask if the intended work is really necessary, or could we:

- modify the confined space itself so that entry is not necessary;
- have the work done from outside, for example:

- blockages can be cleared in silos by use of remotely operated rotating flail devices, vibrators or air purges;
- inspection, sampling and cleaning operations can often be done from outside the space using appropriate equipment and tools;
- remote cameras can be used for internal inspection of vessels.

Safe systems of work

If we cannot avoid entry into a confined space, we will make sure that we have a safe system

for working inside the space.

Use the results of the risk assessment to help identify the necessary precautions to reduce the risk of injury. These will depend on the nature of the confined space, the associated risk and the work involved.

Make sure that the safe system of work, including the precautions identified, is developed and put into practice. Everyone involved will need to be properly trained and instructed to make sure they know what to do and how to do it safely.

The following checklist is not intended to be exhaustive but includes many of the essential elements to help prepare a safe system of work.

Appointment of a supervisor

Supervisors should be given responsibility to ensure that the necessary precautions are taken, to check safety at each stage and may need to remain present while work is underway.

Are persons suitable for the work?

Do they have sufficient experience of the type of work to be carried out, and what training have they received? Where risk assessment highlights exceptional constraints as a result of the physical layout, are individuals of suitable build? The competent person may need to consider other factors, e.g. concerning claustrophobia or fitness to wear breathing apparatus, and medical advice on an individual's suitability may be needed.

Isolation

Mechanical and electrical isolation of equipment is essential if it could otherwise operate, or be operated, inadvertently. If gas, fume or vapour could enter the confined space, physical isolation of pipework etc. needs to be made. In all cases a check should be made to ensure isolation is effective.

Cleaning before entry

This may be necessary to ensure fumes do not develop from residues etc. while the work is being done.

Check the size of the entrance

Is it big enough to allow workers wearing all the necessary equipment to climb in and out easily, and provide ready access and egress in an emergency? For example, the size of the opening may mean choosing air-line breathing apparatus in place of self-contained equipment which is bulkier and therefore likely to restrict ready passage.

Provision of ventilation

You may be able to increase the number of openings and therefore improve ventilation. Mechanical ventilation may be necessary to ensure an adequate supply of fresh air. This is essential where portable gas cylinders and diesel-fuelled equipment are used inside the space because of the dangers from build-up of engine exhaust. Warning: carbon monoxide in the exhaust from petrol-fuelled engines is so dangerous that use of such equipment in confined spaces should never be allowed.

Testing the air

This may be necessary to check that it is free from both toxic and flammable vapours and that it is fit to breathe. Testing should be carried out by a competent person using a suitable gas detector which is correctly calibrated. Where the risk assessment indicates that conditions may change, or as a further precaution, continuous monitoring of the air may be necessary.

Provision of special tools and lighting

Non-sparking tools and specially protected lighting are essential where flammable or potentially explosive atmospheres are likely. In certain confined spaces (e.g. inside metal tanks) suitable precautions to prevent electric shock include use of extra low voltage equipment (typically less than 25 V) and, where necessary, residual current devices.

Provision of breathing apparatus

This is essential if the air inside the space cannot be made fit to breathe because of gas, fume or vapour present, or lack of oxygen. Never try to 'sweeten' the air in a confined space with oxygen as this can greatly increase the risk of a fire or explosion.

Preparation of emergency arrangements

This will need to cover the necessary equipment, training and practice drills.

Provision of rescue harnesses

Lifelines attached to harnesses should run back to a point outside the confined space.

Communications

An adequate communications system is needed to enable communication between people inside and outside the confined space and to summon help in an emergency.

- Check how the alarm is raised
- Is it necessary to station someone outside to keep watch and to communicate with anyone inside, raise the alarm quickly in an emergency, and take charge of the rescue procedures?
- Is a 'permit-to-work' necessary?

A permit-to-work ensures a formal check is undertaken to ensure all the elements of a safe system of work are in place before people are allowed to enter or work in the confined space. It is also a means of communication between site management, supervisors, and those carrying out the hazardous work.

Essential features of a permit-to-work are:

- clear identification of who may authorise particular jobs (and any limits to their authority) and who is responsible for specifying the necessary precautions (e.g. isolation, air testing, emergency arrangements etc.);
- provision for ensuring that contractors engaged to carry out work are included;
- training and instruction in the issue of permits;
- monitoring and auditing to ensure that the system works as intended.

Emergency procedures

When things go wrong, people may be exposed to serious and immediate danger. Effective arrangements for raising the alarm and carrying out rescue operations in an emergency are essential.

Contingency plans will depend on the nature of the confined space, the risks identified and consequently the likely nature of an emergency rescue.

Emergency arrangements will depend on the risks. We should consider:

1. **Communications**

   How can an emergency be communicated from inside the confined space to people outside so that rescue procedures can start? Don't forget night and shift work, weekends and times when the premises are closed, e.g. holidays. Also, consider what might happen and how the alarm can be raised.

2. **Rescue and resuscitation equipment**

   Provision of suitable rescue and resuscitation equipment will depend on the likely emergencies identified. Where such equipment is provided for use by rescuers, training in correct operation is essential.

3. **Capabilities of rescuers**

   They need to be properly trained people, sufficiently fit to carry out their task, ready at hand, and capable of using any equipment provided for rescue, e.g. breathing apparatus, lifelines and fire-fighting equipment. Rescuers also need to be protected against the cause of the emergency.

4. **Shut down**

   It may be necessary to shut down adjacent plant before attempting emergency rescue.

5. **First-aid procedures**

   Trained first aiders need to be available to make proper use of any necessary first aid equipment provided.

6. **Local emergency services**

   How are the local emergency services (e.g., fire brigade) made aware of an incident?

   What information about the particular dangers in the confined space is given to them on their arrival?

Relevant law

- The Confined Spaces Regulations 1997;
- The Management of Health and Safety at Work Regulations 1999;
- The Control of Substances Hazardous to Health Regulations 2002 (as amended);
- The Personal Protective Equipment at Work Regulations 1992 (as amended);
- The Provision and Use of Work Equipment Regulations 1998;
- Electricity at Work Regulations 1989;
- Workplace (Health, Safety and Welfare) Regulations 1992.

Some of the above law is relevant because of the nature of the work to be carried out inside a confined space, e.g. where there are risks from machinery, electricity or from hazardous substances.

Excavation Safety

To protect workers from injuries and fatalities, preventive measures should be implemented when workers begin excavating. According to OSHA, general safety measures to follow should cover the following:

1. Inspect trenches daily before work begins. Don't go near an unprotected trench.
2. Check weather conditions before work, be mindful of rain and storms.
3. Keep heavy equipment away from trench edges.
4. Be mindful of the location of utilities underground.
5. Always wear proper protective equipment.
6. Don't work beneath raised loads.
7. Conduct atmosphere tests. If low oxygen and toxic gases were detected, workers must not enter the trench.
8. Protective systems like benching, sloping, shoring and shielding must be created.
9. Planning and implementation of safety measures must be done by a competent person.
10. Use a checklist to perform regular self inspections – download free excavation safety checklists here.

Excavation Hazards

The common hazards associated with excavation;

The collapse of the sides of the excavation.

Materials falling onto people

Falls, either people or vehicles.

Nearby structures collapsing into the excavation.

Electrocution, explosion, gas leak, or flooding, caused by damage to underground services.

Excavation Precautions

Collapsing should be avoided by supporting the sides by either battering them or supporting them with sheets. Materials from the excavation should be stored at a safe distance from the excavation, this will help reduce the risk of them falling onto people. Adding barriers to excavation is an essential precaution to avoid people falling into the excavation. It is safer if vehicles are kept completely out of the excavation area but if required the use of barriers and stop-blocks should help mitigate that danger.

Cable, pipe, and service plans should be used to ensure that underground services are known so they can be marked on the ground or, ideally, the area avoided entirely. Around the areas where there are underground services mechanical equipment should be avoided and instead use spades and/or shovels. Picks and forks should be avoided as they are more likely to pierce cables and pipes. Flooding can be avoided by ensuring that there is appropriate pumping equipment so that any water that seeps into the excavation can be easily pumped out to a safe area.