

NEWMAN SCOTT LIMITED

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HEALTH & SAFETY MANUAL

GENERAL ARRANGEMENTS, PROCEDURES AND PROHIBITIONS

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1. General Management And Execution

1.1. General Management

1. This is a general policy only. All employees are to aware of any activity specific method statements and risk assessments and in the event of conflict between either of these and this document the former shall prevail.
2. In the event of doubt guidance can be obtained from John Graham
3. No person shall arrange for a designer or contractor to design, carry out or manage work on behalf of the Company unless he has taken such steps as are reasonable (including making reasonable enquiries or seeking advice where necessary) to satisfy himself that the designer or the contractor has the competence to carry out that design or construction work and that the designer and/or contractor has allocated or, as appropriate, will allocate adequate resources to enable the designer and/or contractor to comply with the requirements and prohibitions imposed on him by or under the relevant statutory provisions applicable to the project.
4. Where appropriate the competence and resources of designers and contractors appointed on behalf of the company shall be demonstrated to the satisfaction of John Graham
5. The person having overall responsibility for health and safety is **David Smiddy** – Managing Director
6. The person having immediate line responsibility for **ALL** health and safety matters is **John Graham** – Director. His responsibilities include : *overall responsibility and authority for carrying out the Company's health and safety policy, monitoring its performance, and reviewing periodically to ensure that the highest standards are met and maintained at all times; ensuring that Safety Representatives are trained as appropriate; drawing up manuals/rules concerning safe systems of work and safe procedures; ensuring that at all departments have sufficient resources to ensure compliance with the manuals/rules, legal and policy requirements; listening to concerns from any Employee and keeping up to date with the latest knowledge in his field of operations.*
7. The person having immediate line responsibility for **Factory** health and safety matters is **Brian Jenkinson – Factory Manager** His responsibilities include : *Ensuring that safety precautions are followed and safe equipment used at all times; that rules, systems and procedures are followed ; emergency arrangements are effective and known to all ; that first aid is readily available; that adequate training, supervision and instruction is given to all factory employees in their sectors of operation ; ensure that all Factory Employees are aware of all factors which may affect their health and safety at work; reporting on actual or potential hazards, risks, dangers, breaches of the law and/or policy; creating, where necessary, new procedures which are safe and without risks to health; constantly to seek methods of improving systems of work in the safest possible manner; listening to concerns from Factory Employees and keeping up to date with the latest knowledge in his field of operations.*
8. The person having immediate day to day line responsibility for health and safety matters in the **Factory** will be the **K Tarn – Factory Foreman**. Those responsibilities include: *ensuring that supervision is carried out, information given, safety precautions used and safety equipment worn; reporting on actual or potential hazards, risks, dangers, breaches of the law and the Factory Safety Rules.*
9. The persons having immediate line responsibility for health and safety matters on **External Sites** will be the Contract Manager for that site. Those responsibilities include : *ensuring that training and supervision is carried out, information given, safety precautions used and safety equipment worn; reporting on actual or potential hazards, risks, dangers, breaches of the law and/or policy; creating, where necessary, new procedures which are safe and without risks to health; ensuring adequate resources are available to meet the policy objectives and keeping up to date with the latest knowledge in their field of operations.*
10. The persons having immediate day to day responsibility for health and safety matters on **External Sites** will be the Site Foreman named for that particular site. Those responsibilities include: *ensuring that supervision is carried out, information given, safety precautions used and safety equipment worn; reporting on actual or potential hazards, risks, dangers, breaches of the law, the site safety rules and/or the on-site construction phase plans*
11. A Safety Representative will be elected from the Factory workforce. That person is currently **K. Tarn**.
12. A Safety Committee has been established, and will meet regularly to review all matters relating to **Factory** health and safety, and make improvements where necessary. The Committee currently consists of **J. Graham, B Jenkinson, H Smiddy & K Tarn**.

1.2. Work Execution

1. The company shall carry out all of its work activities in compliance with any rules applicable to the work activities contained in this manual and in accordance with the company's health and safety policy relating to current health and safety legislation.
2. Where appropriate the company shall carry out work in accordance with BS-EN standards and codes of working practice or other published authoritative standards.
3. All Company work activities, workplaces (including means of access and egress) and welfare facilities shall, as appropriate, be maintained in a safe condition, efficient state, efficient working order and in good repair.

4. These factors shall be taken into account in the contract review and in carrying out risk assessments.
5. The Company shall where appropriate and in relation to any work :-
 - 5.1.1. co operate with other contractors so far as is necessary to enable each to comply with their duties under the relevant statutory provisions;
 - 5.1.2. promptly provide Employees with any information (including any or any relevant part of any risk assessment) which might affect the health or safety of any person carrying out the work or of any person who may be affected by the work;
 - 5.1.3. ensure that there are arrangements made for co-ordinating the views of employees, where necessary for reasons of health and safety;
 - 5.1.4. ensure that every employee carrying out work is provided with comprehensible information on :
 - 5.1.4.1. the risks to their health and safety identified by risk assessments;
 - 5.1.4.2. the preventative and protective measure
 - 5.1.4.3. the procedures to be followed for serious and imminent danger and danger areas and the names of persons nominated to implement evacuation procedures in the event of an emergency;
 - 5.1.4.4. areas occupied by the Company to which it is necessary to restrict access
 - 5.1.4.5. the risks to their health and safety arising out of or in connection with the conduct of other workers at work on the project;
 - 5.1.5. ensure that their employees are provided with adequate health and safety training on their being exposed to new or increased risk because of :
 - 5.1.5.1. being transferred or given a change of responsibilities within the company's undertakings;
 - 5.1.5.2. the introduction of new work equipment into or a change of work equipment already in use within the Company's undertakings;
 - 5.1.5.3. the introduction of a new system of work into or a change in a system of work already in use within the Company's undertaking;

2. **Risk Assessments**

2.1. **Preventative and Protective Measures**

1. Risk assessment is an essential stage of the Company's strategy to achieve the objectives of health and safety throughout the Company.
2. Until a proper analysis of risk is carried out, it is impossible to accurately set priorities for action and, more seriously, any solution which is attempted is likely to prove ineffective and impractical - a waste of time and money.
3. The person responsible shall ensure that suitable and sufficient, documented assessments are carried out for all risks arising out of the company's undertaking and that the employees appointed to carry out the risk assessments are competent to do so.
4. Those carrying out an assessment should be familiar with the main requirements of the appropriate Regulations, have read and understood the risk assessment procedures and guidance contained in this manual and have the ability to:
 - 4.1. observe and appreciate the significance of the risks involved in the operations, including possible departures from good working practice;
 - 4.2. seek additional information where necessary;
 - 4.3. draw the information together in a systematic way;
 - 4.4. form valid and justifiable conclusions as to the risk of injury;
 - 4.5. make a clear record of the assessment in all but simple cases (using the appropriate Risk Assessment Form) and
 - 4.6. communicate the findings to those directors, managers and employees who need to know; and
 - 4.7. recognise their own limitations so that the knowledge or skills of others can be called if necessary.
5. The purpose of the risk assessments is to enable management, at all levels, to identify and put in place effective preventative or protective control measures (method statements) which are necessary to control the risk/s which have been identified by the assessment.
6. In order to be "suitable and sufficient" risk assessments shall:
 - 6.1. correctly identify any significant risk that is foreseeable;

- 6.2. consider the potential severity of injuries which may arise from the risk and the number of persons who may be exposed to the risk;
 - 6.3. enable the assessor and/or management to decide what action/s need to be taken, and what the priorities shall be;
 - 6.4. be appropriate for the type of activity being undertaken;
 - 6.5. remain valid for a reasonable time;
 - 6.6. reflect what management and employees may reasonably be expected to know about the risks associated with their work activities.
7. The time and effort put into an assessment shall be broadly proportional to the potential consequences of the risk, (i.e. the greater the potential and severity of the risk the more time and effort shall be put into the assessment).
 8. Except where circumstances indicate the contrary, trivial risks and those associated with life in general can usually be ignored.
 9. Where the same risk occurs in different places it is not necessary to make a separate risk assessment for every place, one (generic) risk assessment will suffice, provided the circumstances of the risks and the preventative or protective measures are the same.
 10. Those carrying out risk assessments shall make an initial general assessment of all risks, using the Company "General Risk Assessment Form".
 11. This method will:
 - 11.1. identify those risks where the Company's existing preventative or protective measures have reduced the risk/s to a level where no further action is required
 - 11.2. identify those risks (not covered by specific regulations) where further action is required to reduce the risk to an acceptable level;
 - 11.3. identify those risks (covered by specific regulations) where a more detailed or specific risk assessment is required;
 12. In these cases the more detailed or specific assessment shall then be carried out using the relevant company assessment forms, (e.g. COSHH, Manual Handling or PPE, Assessment Forms).
 13. Where an assessment has already been carried out as a requirement of specific Regulations, for example COSHH, there is no need to repeat the assessment unless there is reason to believe that a review of the original assessment is required.
 14. Three aspects of The Company's work activities on construction projects will affect the development of risk assessments and subsequent preventative and/or protective measures:-
 - 14.1. the seriousness of the risk;
 - 14.2. certain of the company's work activities;
 - 14.2.1. will remain the same from activity to activity and the same risk assessment (a "generic assessment") will be sufficient and suitable for all these activities;
 - 14.2.2. will vary from activity to activity and a risk assessment prepared for one activity may have to be modified to be sufficient and suitable for the next;
 - 14.2.3. will change so much from activity to activity that a fresh risk assessment will be required for each.
 - 14.3. some of the company's work activities;
 - 14.3.1. will have no effect on the general public or other contractors working nearby.
 - 14.3.2. will in certain circumstances, or at certain times affect the general public and/or other contractors.
 - 14.3.3. will normally affect the general public and/or other contractors.
 15. These factors shall be taken into account during the risk assessments and the development of the preventative and/or protective measures.
 16. It is the responsibility of person responsible to ensure that a suitable and sufficient assessment is made of all risks arising within their respective areas of responsibility.
 17. All assessments shall be reviewed and where necessary updated whenever;
 - 17.1. there are reasons to suspect that the original assessment is no longer valid; or
 - 17.2. there have been changes which could significantly alter the accuracy of the original assessment, for example, new plant or equipment, change of site or working conditions.
 18. Appropriate risk assessments and preventative and/or protective measures shall be communicated to John Graham.

2.2. Preventative and Protective Measures

1. Risk assessments are not an end in themselves, they must lead to the development and maintenance of such preventative and/or protective measures (method statements) as are necessary to reduce the risk to the lowest extent reasonably practicable.
2. The preventative and/or protective measures that must be taken following the risk assessment will need to comply with the relevant legislation covering the activities which generates the risk (e.g., Electricity at Work Regs, Construction Health, Safety and Welfare Regs, Manual Handling Operations Regs, etc.).

2.3. General Principles of Prevention and Protection

1. The following general principles of prevention and protection shall be applied;
 - 1.1. by all company personnel when deciding the measures which have to be taken following a risk assessment, and
 - 1.2. by everyone with responsibilities under particular activities when they take or propose decisions which might affect health and safety during the works and beyond;
2. If possible. avoid the risk completely. e.g. by not using a particularly dangerous substance or method if it is not essential to the activity.
3. Combat risks at source rather than by secondary measures which leave the risk in place but attempt to prevent contact with the risk, e.g. if ground conditions are slippery, by providing dry walkways, rather than signs warning of the danger.
4. Wherever possible. adapt work to the individual, particularly in the choice of work equipment and methods of work. This will make work less monotonous and improve concentration, and reduce the temptation to improvise equipment and methods.
5. Take advantage of technological progress. which often offers opportunities for safer and more efficient working methods.
6. Give priority to those measures which protect the whole workforce or activity and so yield the greatest benefit, i.e. give collective protective measures, such as suitable working platforms with edge protection, priority over individual measures, such as personal protective equipment.
7. Employees and self-employed need to understand what they need to do. e.g. by training, instruction, and communication of plans and method statements.
8. The existence of an active safety culture within the organisation as a whole needs to be assured. The above principles must be accepted at all levels of the organisation and must apply to all activities.
9. Incorporate the prevention measures into a coherent policy to reduce progressively those risks which cannot be avoided altogether and which takes into account working conditions, organisational factors, the working environment and social factors.
10. Any decisions and any measures, taken or proposed, affecting health and safety, including the preventative and protective measures taken following any risk assessment, must be based upon the careful application of these general principles.

2.4. Remedial Action

1. Where a risk has been identified as a result of a risk assessment the appropriate remedial action shall be taken as soon as practicable following the risk assessment.
2. No risk assessment is complete until the risk has been reduced to the lowest level which it is reasonably practicable to achieve.

2.5. Personal Protective Equipment

1. Where a risk assessment indicates that a risk cannot be avoided or controlled any further by mechanical means or by systems of work and Personal Protective Equipment (PPE) is required a PPE assessment must be carried out and a PPE Assessment Form completed before the PPE issued
2. The Company shall provide Personal Protective Equipment which is appropriate to the risk, suitable to the user and is CE marked, (in accordance with The Company's PPE policy).

2.6. Information to Employees and Others

1. The Safety Officer and others with Health & Safety Line responsibility shall take such steps as is reasonable for persons in their position to ensure that all employees and others within their area/s of control are provided with such comprehensible information which they would need to know in order to understand:-
 - 1.1. the risks to their health and safety identified by the risk assessment's;
 - 1.2. the preventative and protective measures taken to control the risks
 - 1.3. risks arising out of or in connection with the conduct of other contractors working on the site.

2.7. Health Surveillance

1. Appropriate health surveillance or monitoring shall be provided throughout The Company for all employees where a risk assessment shows the following criteria to apply;
 - 1.1. there is an identifiable disease or adverse health condition related to the work concerned;
 - 1.2. there is a reasonable likelihood that the disease or condition may occur under the particular conditions of work; and
 - 1.3. health surveillance is likely to improve the protection of the health of the employees to be covered.
2. All managers must inform the Project Director of any employee whom they suspect of suffering from an identifiable disease or adverse health condition which is related to their work.
3. Health surveillance for potential employees may be required prior to the commencement of work on some particular tasks.

3. The Control Of Substances Hazardous To Health (COSHH)

3.1. Introduction

1. The Company COSHH policy is designed to protect employees and other persons against risks to their health arising out of or in connection with work activities which may expose them to hazardous substances.
2. This policy only applies to exposure arising out of or in connection with work activities which are under the control of The Company and this policy is only intended to control the health effects of hazardous substances. Safety effects do not come within the scope of this policy.
3. Within its COSHH policy the Company shall undertake five basic tasks:
 - 3.1. to assess the risks to health arising from exposure to substances whilst at work and what measures are needed to eliminate, reduce or control the risk;
 - 3.2. to introduce the appropriate measures to eliminate, prevent or control the risk;
 - 3.3. to ensure that control measures are properly used and any control equipment is maintained and tested ready for use;
 - 3.4. if necessary to monitor the exposure of employees and, where necessary, to carry out an appropriate form of health surveillance;
 - 3.5. to inform, instruct and train employees about the risks and the preventative and/or protective measures to be taken.

3.2. The Scope of COSHH

1. The following substances fall within the scope of COSHH whether they appear as solids, liquids, gases, vapours, dusts, mixtures or wastes:-
 - 1.1. substances classified (on the label, data sheet or elsewhere) as Very Toxic, Toxic, Harmful, Corrosive or Irritant;
 - 1.2. substances listed in the current issue of the Health and Safety Executive (HSE) Guidance Note (EH 40/ current year date) as having a Maximum Exposure Limit or an Occupational Exposure Standard
 - 1.3. dust of any kind when present in substantial quantities in air;
 - 1.4. any other substance, arising in the course of work, which creates a risk to health comparable to those above.
2. A substance shall be regarded as hazardous to health if it is hazardous in the form in which it occurs in the work activity, whether or not the manner in which it causes injury to health is known, or whether or not the hazardous ingredients have been identified.

3. If any individual has an adverse health reaction to a substance, that is sufficient to bring that substance within the scope of COSHH.
4. In considering whether a substance is hazardous to health the following additional factors shall be taken into account:-
 - 4.1. different forms of the same substance may present different hazards, e.g. a piece of wood or metal may present little or no hazard in its solid form, but, when ground into dust or heated the dust or fumes may be very hazardous.
 - 4.2. combined or intermittent exposure to various substances may have additive or combined effects.
5. A substantial concentration of dust in air means a concentration of 10 mg/m³, measured over an 8 hour time-weighted average (averaged out over a normal 8 hour shift) of total inhalable dust (i.e. all dust which can be breathed in); and for respirable dust (i.e. that dust of a size which can be taken into the lungs) 5 mg/m³, measured over an 8-hour time weighted average.
6. This COSHH policy does not apply to Asbestos or Lead used at work, nor does it apply where the substance is hazardous solely because of its:
 - 6.1. radioactive properties
 - 6.2. explosive properties;
 - 6.3. flammable properties;
 - 6.4. high pressure;
 - 6.5. high or low temperature.

3.3. Assessment of Hazard

1. Within the company no work activity shall be carried out which is liable to expose a person/s to a substance hazardous to health unless a suitable and sufficient assessment has been carried out.
2. From the information collected during the identification phase and their knowledge and experience the relevant managers, supervisors and employees shall be responsible for carrying out the assessments for those substances and work activities coming within their areas of control.
3. If the same substance presents different risks when used in different work activities then a separate assessment shall be made for each risk.
4. A Company COSHH Assessment Form shall be completed for each substance which presents a risk.

3.4. Assessments

1. The assessment involves first working out the chances of any substance causing harm in the actual circumstances of its use (i.e. the risk) and then, in the light of that, determining the preventative and/or protective measures that are needed to protect peoples health.
2. In making an assessment the questions to be asked are;
 - What substances are present?, in what quantities?, in what form? is their form changed when used (e.g. solid into dust)?
 - What harmful effects are possible?
 - What harmful effects are likely?
 - Where and how are the substances actually handled?
 - What people are doing? what might they do with the substance?
 - What harmful substances are given off?
 - Who could be affected, to what extent, for how long, and under what circumstances?
 - How likely is it that exposure will happen?
 - Is it likely some of the substance will be breathed in?
 - Is it likely that some of the substance will be swallowed through contamination of hands, food, clothing etc?
 - Is it likely to cause skin contamination or be absorbed through the skin?
 - Is it reasonably foreseeable that an accidental leakage, spillage or discharge would occur (e.g. through breakdowns of the plant or control measures or employees mistakes?
 - What action needs to be taken to;
 - prevent anyone being exposed to the substance?
 - control/minimise exposure to reduce any risk?
 - establish effective controls?
 - inform, instruct or train the workforce?
 - where necessary', monitor employees exposure and provide health surveillance?

3.5. Recording the Assessment

1. A Company COSHH Assessment form, for each substance, shall be sufficient record. The Safety Officer shall retain a copy of the assessment forms for substances.

3.6. Prevention or Control

1. Where a risk to health has been identified, the first priority shall be to try and eliminate the risk by finding safer alternatives, substitution, mechanical protection or safer methods of working etc.
2. Only when it is not reasonably practicable to achieve the required degree of protection by any of these methods shall Personal Protective Equipment (PPE) be considered.
3. If PPE is required as a method of control, then a PPE Assessment must be carried out (see PPE section) before the PPE is provided.
4. In all cases where the assessment has indicated a risk, this risk shall be prevented or adequately controlled by any of, or any combination of, the following measures:-
5. Prevention by :
 - 5.1. elimination of the use of the substance creating the risk; or
 - 5.2. substitution for a less hazardous substance, or the same substance in a less hazardous form.
6. Where any of the above is not reasonably practicable exposure must be adequately controlled by any of, or any combination of, the following measures;
 - 6.1. total enclosure of the process;
 - 6.2. partial enclosure and extract equipment;
 - 6.3. local exhaust ventilation (LEV);
 - 6.4. sufficient general ventilation;
 - 6.5. systems of work which prevent or reduce risk;
 - 6.6. limit the extent of the risk;
 - 6.7. reduce or exclude persons at risk;
 - 6.8. reduce period/s of exposure;
 - 6.9. good housekeeping, cleaning etc;
 - 6.10. safe storage or disposal;
 - 6.11. suitable personal protective clothing and/or equipment (PPE);
 - 6.12. prohibition of eating, drinking, smoking, etc in areas of contamination;
 - 6.13. good standards of personal hygiene and hygiene facilities;
 - 6.14. emergency procedures;
 - 6.15. adequate facilities for washing, changing and storage of clothing.

3.7. Use of Control Measures

1. The Safety Officer and other employees who carry supervisory duties must ensure that any control measures operating within their area/s of responsibility are properly used or applied. These duties shall include;
 - visual checks to ensure control measures are being properly used or applied;
 - prompt remedial action where necessary.

3.8. Employees Obligations

1. All Company employees shall use all control measures (e.g. protective equipment and/or clothing) in the manner and for the purposes for which they were intended to be used and this shall include in particular:
 - use the control measures provided;
 - wear or use in the proper manner the PPE provided;
 - store the PPE in the accommodation provided;
 - remove the PPE before leaving the contaminated area;
 - practice high standards of personal hygiene;
 - report any defects in any control measures or PPE to their Supervisor or Manager.

3.9. Information, Instruction and Training

1. Information

1.1. The Company shall provide appropriate employees and other persons who may be affected, with the following information (by way of internal substance data sheets and/or completed COSHH assessment forms): -

- nature and degree of risks;
- factors which may influence or increase the risks;
- control measures adopted, the reasons for and how to use them properly;
- reasons for PPE, the type required and the jobs where these are necessary;

2. Information shall also be available to employees relating to:-

- 2.1. < monitoring procedures;
- 2.2. < health surveillance.

4. Safety In Manual Handling

4.1. Introduction

1. There is now substantial international acceptance of both the scale of the manual handling problem and methods of prevention.
2. Modern medical and scientific knowledge stresses the importance of an ergonomic approach in removing or reducing the risk of manual handling injury.
3. Ergonomics is the interaction between workers and their working environment, or as sometimes described "fitting the job to the person, rather than the person to the job".
4. The ergonomic approach looks at manual handling as a whole, taking into account a range of relevant factors including the nature of the task, the load, the working environment and individual capability.
5. The Company's policy sets a clear priority of measures relating to manual handling, which are:
 - 5.1.1. avoid hazardous manual handling operations so far as is reasonably practicable -this may be done by redesigning the task to avoid moving the load or by automating or mechanising the process;
 - 5.1.2. make a suitable and sufficient assessment of any hazardous manual handling operations that cannot be avoided; and
 - 5.1.3. reduce the risk of injury so far as is reasonably practicable -particular consideration shall be given to the provision of mechanical assistance but where this is not reasonably practicable then other improvements to the task, the load and the working environment shall be investigated.
6. Within this policy no specific requirements such as weight limits or lifting techniques are set. The ergonomic approach shows clearly that such requirements are based on too simple a view of the problem and are likely to lead to misleading conclusions. Instead, assessments are required which are based on the range of relevant factors and used to determine the risk of injury and point the way to preventative and/or protective action.

4.2. Injury

1. This policy seeks to prevent injury to any part of the body. Therefore assessments shall take into account any external properties of the load which might either affect grip or cause direct injury, for example slipperiness, roughness, sharp edges or extremes of temperature.
2. Risks from the contents of a load, for example through spillage or leakage of corrosive material or from external contamination, are not classed as manual handling risks (such risks shall be assessed under the Control of Substances Hazardous to Health (COSHH) policy).

4.3. Manual handling operations

1. This policy applies to the manual handling of loads, i.e. by human effort, as opposed to mechanical handling by crane, lift truck, etc.
2. The human effort may be applied directly to the load, or indirectly by hauling on a rope or pulling on a lever.

3. The use of mechanical assistance, e.g. a sack truck or a powered hoist, may reduce but not eliminate manual handling since human effort is still required to move, steady or position the load.
4. Manual handling includes both transporting a load and supporting a load in a stationary position. The load may be moved or supported by the hands or any other part of the body, for example the shoulder.
5. Manual handling also includes the intention of dropping of a load and the throwing of a load (e.g., by use of a shovel) whether into a receptacle or from one person to another.
6. The use of human effort for purposes which do not involve transporting or supporting a load does not constitute a manual handling operation. For example operating the starting handle of an engine or a control lever on a machine is not manual handling, nor is the action of pulling on a rope while lashing down cargo on the back of a vehicle.

4.4. General risk assessments

1. This Manual Handling policy shall be applied in conjunction with the General Risk Assessments section of the Company Safety Policy.
2. If the general assessment (see Risk Assessments (General) section) indicates a possibility of injury from manual handling operations, consideration shall first be given to avoiding the need for the operation which is being assessed.
3. At this preliminary stage a judgement shall be made as to the nature and likelihood of injury. It may not be necessary to carry out a specific and detailed risk assessment, particularly if the general risk assessment indicates that the risks are being controlled or avoided by existing measures or if the risk is of an insignificant order or if the risk falls within the Figure 1 Guidelines.

4. Elimination of handling.

- 4.1. In seeking to avoid manual handling the first questions to ask are whether movement of the load/s can be eliminated altogether? is the handling operation/s unnecessary? or could the load/s be moved in some entirely different way?

5. Automation or mechanisation.

- 5.1. if load handling operations, in some form, cannot be avoided entirely then the following questions shall be asked:-
 - 5.1.1. < can the operations be automated?
 - 5.1.2. < can the operations be mechanised?
- 5.2. It should be remembered that the introduction of automation or mechanisation may create other, different risks. Even an automated plant will need maintenance and repair, and mechanisation, for example by the introduction of lift trucks or powered conveyors, can introduce fresh risks requiring precautions of their own.
- 5.3. It is especially important to address these questions when new plant or systems of work are being considered or new sites planned and designed.
- 5.4. Examination of existing activities may also reveal opportunities for avoidance of manual handling operations that involve a risk of injury. Such improvements often bring additional benefits in terms of greater efficiency and productivity, and reduce damage to loads.

4.5. Making a specific and detailed assessment

1. When a more detailed assessment is indicated following the general risk assessment, it must follow the structure set out in this policy and use a Company Manual Handling Operations Assessment Checklist form.
2. The company assessment form lists a number of questions in five categories including the task; the load; the working environment; the individual's capability and other factors.
3. Not all of these questions will be relevant to every case.
4. These categories are clearly interrelated: each may influence the others and therefore none can be considered in isolation. However, in order to carry out the assessment in a structured way it is often helpful to begin by breaking the operations down into separate, more manageable items.

5. Risk assessment is the essential first stage of any strategy to achieve the objectives of health and safety legislation throughout the company. Until a proper analysis of the problem is carried out, it is impossible to accurately set priorities for action and, more seriously, any solution which is attempted is likely to prove ineffective and impractical.
6. Directors and management must ensure that suitable and sufficient, documented assessments are carried out for all manual handling risks arising within their area/s of responsibility and that the employees appointed to carry out the risk assessments are competent to do so.
7. Those carrying out an assessment should be familiar with the main requirements of the appropriate Manual Handling Operations Regulations, must have read and understood the risk assessment procedures and guidance contained in the Company's health and safety policy and have the ability to:-
 - 7.1. observe and appreciate the significance of the risks involved in the operations, including possible departures from good working practice;
 - 7.2. seek additional information where necessary;
 - 7.3. draw the information together in a systematic way
 - 7.4. form valid and justifiable conclusions as to the risk of injury;
 - 7.5. make a clear record of the assessment in all but simple cases using the company Assessment Forms, and communicate their findings to those employees who need to know; and
 - 7.6. recognise their own limitations so that the knowledge or skills of others can be called in if necessary.

5. **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

1. Personal Protective Equipment (PPE) means all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety, and any addition or accessory designed to meet this objective.
2. PPE includes both the following, when they are worn for protection of health and safety;
 - < protective clothing such as aprons, protective clothing for adverse weather conditions, gloves, safety footwear, safety helmets, high visibility waistcoats etc; and
 - < protective equipment such as eye protectors, life-jackets, respirators, breathing apparatus and safety harnesses.

5.1. **Provision of personal protective equipment**

1. Throughout the Person having line responsibility or manager shall ensure that suitable PPE is provided to employees who may be exposed to a risk to their health or safety while at work except where and to the extent that such risk/s can be adequately controlled by other means which are equally or more effective.
2. PPE shall be provided which:-
 - 2.1. < is appropriate for the risk or risks involved and the conditions at the place where exposure to the risk may occur;
 - 2.2. < takes account of ergonomic requirements and the state of health of the person or persons who may wear it;
 - 2.3. < is capable of fitting the wearer correctly, if necessary after adjustments within the range for which it was designed;
 - 2.4. < so far as is practicable, is effective to prevent or adequately control the risk or risks involved without increasing overall risk.

3. **PPE Must Be a 'Last Resort'**

4. The Management of Health and Safety at Work Regulations (MHSWR) 1999 require all employers to identify and assess the risks to health and safety present in the workplace, so enabling the most appropriate means of reducing those risks to an acceptable level to be determined.
5. There is in effect a hierarchy of control measures, and PPE shall always be regarded as the 'last resort' to protect against risks to safety and health; engineering controls and safe systems of work shall always be considered first.
6. It may be possible to do the job by another method which will not require the use of PPE or, if that is not possible, adopt other more effective safeguards.
7. However in some circumstances PPE will still be needed to control the risk/s adequately, and the company PPE policy shall then take effect.
8. There are a number of reasons for this approach:-
 - PPE protects only the person wearing it, whereas measures controlling the risk at source can protect everyone at the workplace.

- Theoretical maximum levels of protection are seldom achieved with PPE in practice, and the actual level of protection is difficult to assess. Effective protection is only achieved by suitable PPE, correctly fitted and maintained and properly used.
 - PPE may restrict the wearer to some extent by limiting mobility or visibility, or by requiring additional weight to be carried.
9. Therefore, other means of prevention and/or protection shall be used whenever possible.
10. The company shall provide appropriate PPE and training in its usage to their employees wherever there is a risk to health and safety that cannot be adequately controlled by other means.

5.2. Providing personal protective equipment

1. The PPE shall be readily accessible to employees, or at the very least they shall have clear instructions on where they can obtain it.
2. Most PPE shall be provided on a personal basis, but in certain circumstances items of PPE may be shared by users, for example where it are required for short periods.

5.3. Risks

1. Where risks are sufficiently low that they can be considered in effect to be insignificant, then PPE need not be provided. For example, in most workplaces there will be some risk of people dropping objects onto their feet, but it is only when there is manual handling of objects of sufficient weight that the risk will be sufficient to require the provision of safety footwear.
2. Adequate control of the risk is in general the standard of protection which the PPE provided shall achieve. However there may be some circumstances where no PPE will provide adequate control of the risk. In these cases, The company shall provide PPE offering the best protection available in the circumstances.
3. The use of PPE must not increase the overall level of risk, i.e. PPE shall not be worn if the risk caused by wearing it is greater than the risk against which it is meant to protect.

5.4. Suitability Factors

1. Those having to use PPE shall be consulted and involved in the selection and specification of the equipment as there is a better chance of PPE being used effectively if it is accepted by each wearer.
2. All PPE which is approved by the HSE or bears the 'CE' mark must pass basic performance requirements. These have usually been set following medical advice, and the use of such PPE should cause no problems to average healthy adults.
3. Where problems occur, the company shall seek medical advice as to whether the individual can tolerate wearing the PPE.
4. Managers need only take into account those medical conditions of which they have been informed.

5.5. Compatibility of personal protective equipment

1. In some situations it may be necessary for more than one item of PPE to be worn at the same time and the different items of PPE must therefore be compatible with each other. For example, certain types of respirators will not fit properly and give adequate protection if a safety helmet is worn. In such cases when selecting PPE it shall be ensured that both items when used together shall adequately control the risks against which they are provided to protect.

5.6. Assessment of personal protective equipment

1. Before providing any item of PPE, a PPE assessment must be made by completing a Company PPE Assessment Form, to determine whether the PPE which is intended to be provided is suitable to the risk/s and to the user.
2. The PPE assessment shall include an assessment of any risk or risks to health or safety which have not been avoided by other means;
3. identification of the characteristics which the PPE must have in order to be effective, taking into account any risks which the equipment itself may create;

4. comparison of the characteristics of the PPE available with those characteristics identified in above.
5. The purpose of the PPE assessment is to ensure that only PPE is provided which is suitable for the particular risk/s involved and for the circumstances of its use.
6. The PPE assessment follows on from, but does not duplicate, the risk assessments carried out for the purposes of other health and safety regulations which involve identifying the risk/s present in any company undertaking and then evaluating the extent and significance of those risks.
7. Whatever PPE is chosen, it should be remembered that, although some types of PPE do provide very high levels of protection, none provides 100% protection. Therefore some indication is needed of the level of risk so that the performance required of the PPE can be estimated.
8. This information shall have been gathered as part of the risk assessments carried out under other Regulations or more generalised data may be available from sources such as manufacturers/suppliers or HSE guidance.
9. In the simplest and most obvious cases which can easily be repeated;and explained at any time, the assessment to identify suitable PPE need not be recorded. In more complex cases, however, the assessment will need to be recorded and kept readily accessible to those who need to know the results. (A completed company PPE Assessment form shall be sufficient record).
10. Managers must ensure that any PPE assessment is reviewed as and when:-
 - (a) there is reason to suspect that any element of the assessment is no longer valid; or
 - (b) there has been a significant change in the matters to which it relates,
 - © where as a result of any such review changes in the assessment are required the relevant managers shall ensure that they are made.

5.7. Selection of Suitable PPE

1. Once potential risk/s are known (following a risk assessment) there may be several types of PPE that would be suitable.
2. The risks at the workplace and the part of the body endangered are the two key elements to consider. For example, when assessing the need for eye protection, the types of risk/s present shall first be identified, such as airborne dust, liquid splashes or projectiles, and then the degree of risk - for example the likely size and velocity of the projectiles. A suitable type of PPE from the range of 'CE' marked PPE available shall then be selected. In this case, eye protection is designed for dust or chemical protection, and to different levels of impact resistance
3. Once a type of PPE has been selected for a given application, further advice and information may be necessary to ensure that the PPE can provide the protection needed.
4. Manufacturers and suppliers have duties under the PPE (Safety) Regulations 1992 and under section 6 of the HSW Act to provide information of this type
5. When selecting PPE to be used while doing a job, the nature of the job and the demands it places on the employee shall be taken into account. This will involve considering the physical effort required to do the job, the methods of work, how long the PPE needs to be worn, and requirements for visibility and communication
6. Selection shall be seen as only the first stage in a continuing programme which is also concerned with the proper use and maintenance of the PPE, and the training and supervision of employees.

5.8. Information, Instruction and Training

1. Suitable and comprehensible information, instruction and/or training shall be provided for employees to enable them to make effective use of the PPE provided to protect them against workplace hazards to their health and safety.
2. Users shall be trained in the proper use of PPE, how to correctly fit and wear it, and what its limitations are.
3. Managers and supervisors shall also be aware of why PPE is being used and how it is used properly.
4. The instruction and training shall include:-

5.9. Theoretical training

1. an explanation of the risks present and why PPE is needed;
2. the operation, performance and limitations of the PPE;
3. instructions on the selection, use and storage of PPE related to the intended use. Written operating procedures such as permits to work involving PPE shall be explained;

4. factors which can affect the protection provided by the PPE such as: other protective equipment, personal factors; working conditions; inadequate fitting; defects, damage and wear;
5. recognising defects in PPE and arrangements for reporting loss or defects.

5.10. Practical training

1. practice in putting on, wearing and removing the PPE;
2. practice and instruction in inspection and, where appropriate, testing of the PPE before use;
3. practice and instruction in the maintenance which can be done by the user, such as cleaning and the replacement of certain components;
4. instruction in the safe storage of PPE.

5.11. Use of personal protective equipment

1. Every Company Manager and Supervisor shall take all reasonable steps to ensure that any PPE provided to employees is properly used.
2. Every employee shall use any PPE provided to him in accordance both with any training in the use of the PPE concerned which has been received by him and the instructions respecting that use which have been provided to him.

6. GENERAL REQUIREMENTS AND PROHIBITION FOR HEALTH AND SAFETY IN THE WORKPLACE.

6.1. Procedure for Serious and Imminent Danger

1. Every Company employee who reasonably considers that they are exposed to Serious, Imminent and Unavoidable Danger shall, in the absence of any further guidance or instruction, stop work and immediately proceed to a place of safety.
2. Such a situation must be reported immediately to the Safety Officer or their line supervisor with responsibility for Health & Safety.

6.2. Danger Areas

1. A Danger Area is a work place or a work environment which must be entered by an employee, where the level of risk is unacceptable without special precautions being taken and/or specific training and/or instructions been given.
2. Employee's (and/or other persons) must not enter such danger areas without the relevant special precautions being taken and/or the specific training and/or instruction been given.
3. The risk assessment and shall identify those danger area/s and the specific training and/or instruction which are required.
4. Employees who are required to enter danger areas shall be involved in and informed of the results of any risk assessment carried out covering each danger area.
5. Areas where there is a particular hazard shall be indicated and warning signs placed at appropriate access points.
6. Unauthorised access to Danger Areas, including those where there is a risk of objects or persons falling, shall be prevented.

6.3. Safe places of work

1. Every place of work shall, so far as is reasonably practicable, be made and kept safe for any person working there.
2. There shall, so far as is reasonably practicable, be suitable and sufficient safety access to and egress from every place of work, such access and egress shall be properly maintained.
3. Every place of work shall, so far as it reasonably practicable, have adequate working space having regard to the nature of the work being carried out there.
4. Every place of work shall, so far as is reasonably practicable, be arranged so that it is suitable both for any person who is likely to work at that place of work and for any work which is likely to be done there.
5. Suitable and sufficient steps shall be taken to ensure, so far as is reasonably practicable, that no person (including members of the public) gains access to any unsafe place.

6. Paragraph 6.3.5 shall not apply in relation to a person engaged in work for the purpose of making any place safe, provided all practicable steps are taken to ensure the safety of that person whilst engaged in that work.
7. Every place of work outdoors shall, where necessary to ensure the health and safety of persons working there, be so arranged that, so far as it is reasonably practicable and having regard to the purpose for which that place is used and any protective clothing or equipment provided for the use of any person working there, it provides protection from adverse weather.

6.4. Suitability of Workplaces

1. Every workplace shall be so arranged that it is safe both for any person who is likely to work at that workplace and for any work which is likely to be done there.
2. Every workplace outdoors shall be must be so arranged that;
 - 2.1. so far as is reasonably practicable, it provides protection from adverse weather;
 - 2.2. it enables any person at the workplace to leave it swiftly or, as appropriate, to be assisted in the event of an emergency; and
 - 2.3. it ensures that any person at the workplace is not likely to slip or fall.
3. There shall be sufficient clear and unobstructed space at each workplace to enable the work to be done safely. This should allow for the manoeuvring and positioning of materials, for example lengths of timber.

6.5. Condition of floors and traffic routes

1. "Traffic route" means a route for pedestrian traffic, vehicles or both and includes any stairs, ladder, doorway, gateway, loading bay or ramp.
2. Temporary floors and traffic routes shall be of sound construction and shall have adequate strength and stability taking account of the loads placed on them and the traffic passing over them.
3. The surface of floors and traffic routes shall be free from any hole, slope, or uneven or slippery surface which is likely to;
 - 3.1. cause a person to slip, trip or fall;
 - 3.2. cause a person to drop or lose control of anything being lifted or carried; or
 - 3.3. cause instability or loss of control of vehicles and/or their loads.
4. Holes, bumps or uneven areas resulting from damage or wear and tear, which may cause a person to trip or fall, shall be made good. Until they can be made good, adequate precautions shall be taken against accidents, for example by barriers or conspicuous marking. Temporary holes, for example an area where floor boards have been removed, shall be adequately guarded or covered.
5. Slopes and ramps shall not be so steep as to cause a risk to persons or vehicles using them.
6. Floors near to machinery which could cause injury if anyone were to fall against it (e.g. a woodworking or grinding machine) shall be free from obstructions, slip-resistant and be kept free from slippery substances or loose materials.
7. Where possible, processes and plant which may discharge or leak liquids shall be enclosed (for example by bunding), and leaks from taps or discharge points on pipes, drums and tanks shall be caught or drained away. Stop valves shall be fitted to filling points on tank filling lines.
8. Where work involves carrying or handling liquids or slippery substances, the workplace and work surfaces shall be arranged in such a way as to minimise the likelihood of spillage.
9. Methods of draining and containing toxic, corrosive or highly flammable liquids shall not result in the contamination of drains, sewers, watercourses, or ground water supplies, or put people or the environment at risk.
10. Where a leak or spillage occurs and is likely to be a slipping hazard, immediate steps shall be taken to fence it off, mop it up, or cover it with absorbent or non slip materials.
11. Suitable arrangements shall be made to minimise risks from snow and ice. This may involve gritting, snow clearing and closure of some routes, particularly outside stairs, ladders and walkways on roofs.
12. Floors and traffic routes shall be kept free from obstructions which may present a hazard or impede access. This is particularly important on or near stairs, steps, ladders or on emergency routes, in or near doorways or gangway's, and in any place where an obstruction is likely to cause an accident, for example near a corner or junction.

13. Where a temporary obstruction is unavoidable and is likely to be a hazard, access shall be prevented or steps taken to warn people or the drivers of vehicles of the obstruction by, for example, the use of hazard signs/cones etc.
14. Vehicles and plant shall not be parked where they are likely to be a hazard. Materials which fall onto traffic routes shall be cleared as soon as possible.
15. Every open side of a staircase or mezzanine storage area shall be securely fenced. As a minimum the fencing shall consist of an upper rail at 900 mm or higher and a lower rail with a kicking board.

6.6. Prevention of falls

1. Suitable and sufficient steps shall be taken to prevent any person from falling from a height of 2 metres or more.
2. The steps referred to in paragraph 6.6.1 shall include the provision of -
 - 2.1. suitable working platforms and where appropriate and reasonably necessary ;
 - 2.2. guard-rails (including intermediate guard-rails or equivalent alternative), barriers, toe-boards and fences; and
 - 2.3. where necessary, crawling boards or crawling ladders.
3. Where any of the matters referred to in the above sub paragraphs are provided, they shall comply with section 6.7 Safeguards to Prevent Falls set out below.
4. Paragraph 6.6.1 shall not apply in respect of any opening, break or edge exposed in the course storage work so long as adequate precautions are in place to prevent any person being exposed to the risk of falling therefrom and the break is made good immediately after the storage activity has been completed. Breaks must not be left unattended.
5. Where -
 - 5.1. any construction work is done on or from a sloping roof, or
 - 5.2. any sloping roof is used as a means of access to or egress from such work,
 and where, in either case, any person is liable to fall from a height of 2 metres or more, suitable and sufficient crawling ladders or crawling boards shall be provided on that roof unless adequate handholds and footholds are otherwise afforded by the structure so that the sloping roof is as safe for every person thereon as if crawling ladders or crawling boards had been provided.

6.7. Boards and planks in working platforms, gangways and runs

1. No board of plank which forms part of a project working platform, gangway or run shall project beyond its end support to a distance exceeding four times the thickness of the board or plank unless it is effectively secured to prevent tripping, or to a distance which, having regard to the thickness and strength of the plank, renders the projecting part of the plank an unsafe support for any weight liable to be upon it.
2. Suitable measures shall be taken by the provision of adequate bevelled pieces or otherwise to reduce to a minimum the risk of tripping and to facilitate the movement of barrows where boards or planks which form part of a working platform, gangway or run overlap each other or are not of reasonably uniform thickness where they meet each other or owing to warping or for some other reason do not provide an even surface.
3. Sub-paragraph 6.8.2 shall not apply to a working platform, gangway or run one side of which is contiguous to a curved surface of any cylindrical or spherical structure.
4. Every board or plank which forms part of a working platform, gangway or run shall -
 - 4.1. rest securely and evenly on its supports; and
 - 4.2. rest on at least 3 supports unless, taking into account the distance between the supports and the thickness of the board or plank, the conditions are such as to prevent undue or unequal sagging.
5. Where work has to be done at the end of a wall or working face the working platform at such wall or face shall, wherever practicable, extend at least 600 millimetres beyond the end of the wall or face.
6. Boards or planks placed alongside each other so as to afford a platform shall be firmly cleated together by adequate plates and bolts or otherwise properly secured to prevent slippage sideways.
7. Secure handholds shall wherever practicable be provided for persons on a working platform.

6.8. Guard rails, toe-boards etc.

1. The height of a toe board of other similar barrier shall be not less than 150 millimetres.
2. The height of guard-rails above any place of work on a working platform, gangway, run, or stairway shall be
 - 2.1. -in the case of a top guard-rail on a suspended scaffold, not less than 700 millimetres;
 - 2.2. -in the case of a top guard-rail at any place other than a suspended scaffold, not less than 910 millimetres and not more than 1.15 metres; and
 - 2.3. -in the case of an intermediate guard-rail, not less than 455 millimetres and not more than 605 millimetres.
3. The outward movement of guard-rails and toe-boards or barriers shall (unless they are so designed and used as to prevent such movement) be prevented by placing them in the inside of the uprights or by other equally effective means.
4. Guard-rails, toe-boards and barriers may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials or other purposes of the work; but guard-rails, toe-boards and barriers removed or remaining unerected for any of those purposes shall be replaced or erected as soon as practicable.
5. Guard-rails and toe-boards or other barriers shall not be required on the side of suspended scaffold next to the wall or working face if the workers sit at the edge of the platform to work and ropes or chains affording all the workers a safe and secure handhold are provided.
6. Toe-boards shall not be required for stairs or for intermediate landings on stairs.

6.9. Crawling ladders and crawling boards

1. Crawling ladders and crawling boards shall be -
 - 1.1. properly supported; and
 - 1.2. securely fixed or anchored to the surface or, where applicable, over the roof ridge or securely fixed in some other effective way so as, in every case, to prevent slipping.

6.10. Fragile Material

1. No person shall pass across, or work on or from, fragile material from which he would be liable to fall from a height of 2 metres or more unless suitable and sufficient crawling ladders or other similar means of support are provided and used so that the weight of any person so passing or working is supported by such ladders or other similar supports.
2. No person shall pass or work within 2 metres of fragile material from which he would be liable to fall from a height of 2 metres or more unless provision is made by means of such guard-rails, covering and other suitable means as are necessary for preventing, so far as it reasonably practicable, any person so passing or working from falling through that material.
3. Where any person may pass across or within 2 metres of or work on or within 2 metres of fragile material through which he would be liable to fall from a height of 2 metres or more, prominent warning notices shall be affixed at the approach to the place where the material is situated.

6.11. Falling objects

1. Suitable and sufficient steps shall be taken during construction work to prevent any person from being struck by any falling material or object.
2. The steps required to be taken by paragraph 6.11.1 shall, where necessary, include the provision of covered traffic routes or passageways.
3. No material or object shall be thrown, tipped or shot down (otherwise than through a chute provided for that purpose) from a height where it is liable to cause injury but, where practicable, shall be properly lowered.
4. Materials and equipment shall be laid out or stacked in such a way as to prevent their collapse or overturning.

6.12. Collapse of structures

1. Before construction work is commenced and during the progress of that work, all practicable steps shall be taken, where necessary to prevent danger to any person, to ensure that any structure, or any excavation, or any part of any structure or excavation, which may be in a temporary state of weakness or instability due to the carrying out of that construction work (including any excavation work) is adequately shored up, fixed or otherwise supported so as to avoid collapse.

6.13. Safe means of support

1. Where work cannot safely be done on or from the ground or from part of a permanent structure, there shall be provided a scaffold, ladder or other safe means of support which shall be suitable and sufficient for the purpose having regard to the work which is to be carried out.
2. A safe means of support provided shall -
 - 2.1. be so designed and constructed that it does not collapse, overturn or move accidentally;
 - 2.2. be of suitable and sound materials and of sufficient strength and capacity for the task for which it is used; and
 - 2.3. be properly maintained and every part thereof kept so secured, supported or suspended as to ensure, so far as is reasonably practicable, that it is stable.
3. Where a scaffold or ladder is provided pursuant to paragraph 6.13.2, it shall comply with the requirements set out in section Provisions for Scaffolds and Ladders below.

6.14. PROVISIONS FOR SCAFFOLDS AND LADDERS

6.14.1. Use of scaffolds

1. Every scaffold and every work platform, gangway, ladder or any other equipment forming part of a scaffold shall be used in such a way as to prevent persons from falling from the scaffold or from being exposed to falling objects therefrom.

6.14.2. Stability of scaffolds

1. Every scaffold shall be rigidly connected with a building or other permanent structure unless the scaffold is so designed and constructed as to ensure stability without such connection.

6.14.3. Standards or uprights or ledgers

1. Standards or upright of scaffolds shall -
 - 1.1. where practicable, be either vertical or slightly inclined towards the structure on which work is being carried out; and
 - 1.2. be fixed sufficiently close together to secure the stability of the scaffold having regard to all the circumstances.
2. The foot or base of any standard or upright shall be placed on an adequate base plate in a manner to prevent slipping or sinking, or its displacement shall be prevented in some other sufficient way.
3. Ledgers shall be as nearly as possible horizontal and shall be securely fastened to the standards or uprights by efficient means.
4. Putlogs or other supports on which platforms rest shall be securely fastened to the ledgers or to the standards or upright, or their movement shall be prevented by other efficient means.
5. Where one end of a putlog is supported by a wall that end shall extend into or on to the wall sufficiently to provide a supporting surface of sufficient area.

6.14.4. Mobile scaffolds

1. Every scaffold which is designed to be moved on wheels or skids (not being a suspended scaffold or slung scaffold) shall
 - 1.1. be constructed so that it is stable and in accordance with the manufacturers recommendations;
 - 1.2. be erected under the supervision of a competent person
 - 1.3. checked before 1st use by a competent person
 - 1.4. checked after each movement by a competent person
 - 1.5. checked at least every seven days by a competent person
 - 1.6. be used only on a firm and even surface such that there arises no risk of instability of the scaffold or any load thereon;
 - 1.7. be adequately secured to prevent movement when any person is working upon it; and
 - 1.8. be moved only by the application of force at or near the base.A competent person for these purposes shall be a person holding a valid PASMA certificate and card

6.14.5. Loads on scaffolds

1. Scaffolds shall not be overloaded and so far as practical the load thereon shall be evenly distributed.
2. When any material is transferred on or to a scaffold it shall be moved or deposited without imposing any violent shock.
3. Materials shall not be kept upon a scaffold unless needed for work within a reasonable time.

6.15. Use of ladders

1. No ladder shall be used unless -
 - 1.1. it is secured to prevent it from slipping or falling; and
 - 1.2. it has a level and firm footing.
2. No ladder shall be used when it is standing on loose bricks or other loose packing.
3. No ladder standing on a base shall be used unless it is securely fixed near to its upper resting place, or, in the case of a vertical ladder near to its upper end; provided that where such fixing is impracticable the ladder shall be securely fixed at or near its lower end.
4. Where it is not practicable in the case of a ladder standing on a base to comply with either of the requirements of the two sub-paragraphs above, a person shall be stationed at the foot of the ladder when in use to prevent it slipping.
5. None of the above sub paragraphs shall apply to a ladder which is not more than 3 metres in length.
6. No ladder shall be used unless -
 - 6.1. it extends to a height of 1.0 metre or more above the place of landing of highest rung to be reached by the feet of any person using the ladder, as the case may be, or if this is impracticable, to the greatest practicable height; or
 - 6.2. there is other adequate handhold and there is sufficient space at each rung to provide adequate foothold.
7. No ladder or run of ladders rising a vertical distance of 9 metres or more shall be used unless it is, if practicable, provided with an intermediate landing place or intermediate landing places so that the vertical distance between any two successive landing places shall not exceed 9 metres.
8. Where a ladder passes through an opening in the floor of a landing place, the opening shall be as small as is reasonably practicable.
9. The requirements of this section shall not apply to any ladder lying upon a roof or to any crawling board or crawling ladder.

6.16. Demolition or Dismantling

1. Suitable and sufficient steps shall be taken to ensure that the demolition or dismantling of any structure, or any part of any structure, is planned and carried out in such a manner as to prevent, so far as it practicable, danger to any person.
2. No demolition work or dismantling work shall be commenced or continued unless steps have been taken to prevent danger arising from :
 - 2.1. twisting or springing of any ironwork, steelwork or reinforced concrete;
 - 2.2. projected or flying materials; and
 - 2.3. unstable ground.

6.17. Excavations

1. Suitable and sufficient precautions shall be taken so as to prevent risks to the health or safety of any person at work in an excavation and, in particular, risks arising from the fall of any person, object or materials, or from flooding.
2. In any case where any person working in an excavation is liable to be buried or trapped by any fall or dislodgement of earth, rock or other material or to be struck by any object from a height of 1.20 metres or more, the precautions taken by paragraph 7.10.1 shall include the use of adequate supports or other similar means of protection and shall be taken as early as is practicable.
3. Every excavation shall, so far as is reasonably practicable, be provided with adequate means of escape in the event of fire or the inrush of water or material.
4. Adequate steps shall be taken to prevent any person, vehicle or plant and equipment, or any accumulation of earth or other material, from falling into any excavation.

5. No load, vehicle or plant and equipment shall be placed or moved near the edge of any excavation where it is likely to cause a collapse of the side of that excavation and thereby endanger any person.
6. No excavation work shall be carried out unless suitable measures have been taken to identify and, so far as is reasonably practicable, prevent any risk arising from any underground cable or other underground services.

6.18. Traffic Routes

1. Work shall be organised in such a way that, so far as is reasonably practicable, pedestrians and vehicles can move safely.
2. Traffic routes shall be suitable for the persons or vehicles using them, sufficient in number, in suitable positions and of sufficient size.
3. Traffic routes shall not satisfy the requirements of paragraph 6.18.1 unless suitable measures are taken to ensure that -
 - 3.1. vehicles may use a traffic route without causing danger to the health or safety of person in the factory;
 - 3.2. so far as is reasonably practicable, any traffic route for vehicles is sufficiently separated from any traffic route for pedestrians;
 - 3.3. any door or gate which leads onto a traffic route for vehicles is sufficiently separated from that traffic route to enable pedestrians to see, before stepping onto or crossing that traffic route, any approaching vehicle or plant;
 - 3.4. where vehicles and pedestrians use the same traffic route, there is sufficient clearance between them or, where this is not reasonably practicable :
 - 3.4.1. there are effective arrangements for warning any person liable to be crushed or trapped of the danger and of the approach of any vehicle;
 - 3.5. any loading bay has at least one pedestrian exit point; and
 - 3.6. where it is unsafe for pedestrians to use any gate intended primarily for vehicles, one or more doors for pedestrians must be provided in the immediate vicinity of any such gate, such door/s shall be clearly marked and kept free from obstruction.
4. Where a vehicle is or is to be driven, all reasonable steps shall be taken to avoid or obviate low clearances and overhead obstructions and appropriate steps shall be taken by means of suitable warning devices, warning notices or otherwise, to make the driver aware when the vehicle is approaching any point at which there is such a low clearance or obstruction and to warn any persons riding on the vehicle of approaching danger to them due to lack of overhead or side clearance.
5. Traffic routes shall be kept in such condition that, so far as is reasonably practicable, they remain safe for the purposes for which they are used.
6. All traffic routes shall be clearly marked where necessary for reasons of health or safety.

6.19. Doors and gates

1. Any door, gate or hatch (including a temporary door, gate or hatch) shall incorporate or be fitted with any necessary safety devices.
2. A door, gate or hatch shall not comply with the above paragraph unless :
 - 2.1. any sliding door or gate has a device to prevent it coming off its track during use;
 - 2.2. any upward opening door or hatch has a device to prevent it falling back;
 - 2.3. any powered door or gate has suitable and effective features, including readily accessible and identifiable stop devices, to prevent it causing injury by trapping any person;
 - 2.4. where necessary for reasons of health or safety, any powered door or gate can be operated unless it fails to safety.

6.20. Vehicles

1. Every vehicle shall be properly maintained in good repair.
2. Suitable and sufficient steps shall be taken to prevent any vehicle from running away.
3. All vehicles shall be fitted with effective brakes.
4. Where any person may be endangered by the movement of any vehicle, the person in control of the vehicle shall see that adequate warning is given.

5. Any vehicle being used for the conveyance of persons, goods or materials shall when being driven or operated on any work activity :
 - 5.1. be driven or operated in a proper manner;
 - 5.2. be loaded in such a way that it can be driven or operated safely.
6. No person shall ride or be required or permitted to ride on any vehicle otherwise than in a place provided for that purpose.
7. No person shall remain or be required or permitted to remain on any vehicle during the loading of any loose material by means of a grab, excavator or similar appliance, if he is endangered by so remaining.
8. Where any vehicle is used for excavating or handling (including tipping) materials, adequate measures shall be taken where necessary so as to prevent such vehicle from falling into any excavation or pit, or into water, or overrunning the edge of any embankment or earthwork.
9. Excavating machinery and materials-handling machinery shall be fitted, so far as reasonably practicable, with devices to protect the driver against being crushed if the machine overturns and against falling objects.

6.21. Plant and equipment

1. All plant and equipment used for the purpose of carrying out work shall, so far as is reasonably practicable, be safe and without risks to health and shall be of appropriate design and construction, of suitable and sound materials and of sufficient strength and capacity for the purpose for which it is used or provided.
2. All plant and equipment shall be used in such a manner that, so far as is reasonably practicable, it remains safe at all times when it is being used.
3. All plant and equipment used for the purpose of carrying out work on any project shall be maintained in such condition as to ensure, so far as it reasonably practicable, that it remains safe and without risks to health at all times when it is being used.

6.22. Training and supervision

1. No work activity which gives rise to a significant risk to any person, shall be undertaken, unless each person who is to undertake such activity is as regards that activity, adequately trained or experienced or under the immediate supervision of a competent person.
2. No activity listed below shall be undertaken by any person unless that person shall have been adequately trained :
 - 2.1. The use of any of the woodworking machines in the factory
 - 2.2. The erection of any scaffold (including any component part of any scaffold), any boatswain's chair, cage, skip or similar plant and equipment, and any substantial addition or alteration thereto.
 - 2.3. The erection of any means of support for any part of an excavation.
 - 2.4. Work on a sloping roof.
 - 2.5. Operations requiring work to be carried out by a steeplejack.
 - 2.6. Work in an excavation at a depth of 1.2 metres or more.
 - 2.7. Work in any cofferdam or caisson at a depth of 1.2 metres or more.
 - 2.8. The planning and carrying out of any demolition work or dismantling work.
 - 2.9. The driving of any vehicle other than a road vehicle and any excavating machinery or materials handling machinery.
3. No activity listed below shall be undertaken by any person unless he is both adequately trained and experienced and in the company of a competent person :-
 - 3.1. The erection of any structure (including a scaffold) designed or used to provide support or means of access, any heavy prefabricated component, any shuttering and any framework to support any structure including any buttress, formwork or falsework.
 - 3.2. Work in any excavation at a depth of 1.2 metres or more.
 - 3.3. The planning and carrying out of any demolition or dismantling work.
4. Paragraphs 6.22.2 and 6.22.3 shall not apply in any case where the activity is to be carried out by a self-employed person working alone provided that person is competent to carry out that activity.

6.23. Inspection

1. No place of work on this project which is mentioned in column 1 of Section 6.24 (below) shall be used to carry out any work unless that place has been inspected by a competent person at the times set out in the corresponding entry in column 2 of Section 6.24 and that person is satisfied that the work can be safely carried out at that place.

2. Any equipment or materials to be used in connection with any place of work mentioned in column 1 of Section 6.2 shall be inspected by a competent person and it shall not be used unless that person is satisfied that it is suitable and fit for such use.

6.24. Places of Work Requiring Inspection

Column 1	Column 2
Place of work	Time of inspection
1. Any place of work at a height of 2 metres or more including any scaffold, boatswains chair, cage, skip or cradle any place of work supported by ropes	1. Before being taken into use for the first time 2. After any substantial addition, partial dismantling or other alteration 3. After any exposure to extreme weather conditions or other factor likely to have affected its strength or stability 4. At regular intervals not exceeding seven days since the last inspection
2. Confined spaces	On every occasion before any person (other than the person inspecting) enters the confined space
3. Any excavation of a depth of 1.2 metres or more	1. Before any person carries out work in it at the start of every shift 2. After any timbering or support has been substantially damaged 3. After any unexpected fall of rock earth or other material

6.25. Reports

1. Where an inspection is required under section 6.24 (above), the person required to carry out such inspection shall, within 24 hours of completing it, prepare a report which shall include the particulars set out (below).
2. A person required to prepare a report under paragraph 6.25.1 shall provide the report or a copy thereof to the person in control of the activity to which the inspection relates.
3. The report or a copy shall be kept at the site of the work in respect of which the inspection was carried out so that it is available for examination at any reasonable time until the completion of that construction work.

6.26. Particulars To Be Included Within a Report of Inspection

1. Name of person carrying out inspection.
2. Location of workplace inspected.
3. Description of workplace or part of workplace inspected.
4. Date and time of inspection.
5. Details of any matter identified that could give rise to a risk to the health or safety of any person.
6. Details of any action taken as a result of any matter identified in paragraph 5 above.
7. Details of any further action considered necessary.
8. Name and position of person making report.

6.27. Prevention of Fire and Flooding

1. Suitable and sufficient steps shall be taken to prevent danger to any person during the carrying out of work arising from
 - 1.1. risk of fire or explosion; and
 - 1.2. risk of flooding.
2. Suitable and sufficient steps shall be taken to prevent danger arising from
 - 2.1. the storage and handling of flammable material;
 - 2.2. dust explosion
 - 2.3. the use of burning and welding equipment;
 - 2.4. the possible rupture of any gas pipe, water pipe, electrical cable or other concealed service;
 - 2.5. the use of portable heating equipment.

6.28. Fire Precautions

1. Without prejudice to the provisions of the Fire Precautions (Places of Work) Regulations a sufficient number of suitable fire-fighting devices and, where appropriate, fire detectors and alarm systems, shall be provided in respect of the workplace.
2. Any provision for fire-fighting devices, fire detectors and alarm systems shall have regard to
 - 2.1. the characteristics of the building;
 - 2.2. the dimensions of any indoor place of work and the use to which it is put;
 - 2.3. the plant and equipment being used;
 - 2.4. the physical and chemical properties of any substances or materials on or likely to be on the site; and
 - 2.5. the number of persons likely to be present on the site at any one time.
3. Any fire-fighting device, fire detector or alarm system provided shall be properly maintained and subject to examination and testing at regular intervals.
4. Any fire-fighting device which is not designed to come into use automatically shall be easily accessible and simple to use.
5. Suitable site fire drills shall take place at regular intervals.
6. Fire-fighting devices shall be placed at appropriate points and shall be indicated by sufficiently resistant signs which shall comply with the requirements of paragraphs (4)(a) and (b) of regulation 4 of the Health and Safety (Safety Signs and Signals) Regulations.
7. Fire exits must be clearly marked
8. Fire routes must be clearly marked and kept unobstructed

6.29. Ventilation

1. Effective and suitable provision shall be made to ensure that every workplace or approach thereto is ventilated by a sufficient quantity of fresh or purified air.
2. Any plant used for the purpose of complying with the above shall include an effective device to give visible or audible warning of any failure of the plant where necessary for reasons of health or safety.
3. Where there is reason to believe that the atmosphere in any enclosed workplace or approach thereto is poisonous or asphyxiating, then, no person shall be employed in or allowed to enter such workplace or approach until the atmosphere has been suitably tested by or under the immediate supervision of a competent person and he is satisfied that the workplace or approach is, for the time being, free from the danger of a person being overcome by poisoning or asphyxiation.
4. In many cases, windows or other openings will provide sufficient ventilation in some or all parts of the workplace. Where necessary, mechanical ventilation systems shall be provided for parts or all of the workplace, as appropriate.

6.30. Temperature

1. Adequate steps shall be taken to ensure, so far as is reasonably practicable, that during working hours, the temperature at any place of work is reasonable having regard to the purpose for which that place is used any protective clothing or equipment provided for the use of any person working there.
2. Boilers must be regularly maintained and supplied with sufficient and appropriate dust filters to stop the ingress of potentially explosive wood dust into the burner chamber.

6.31. Good order & Dust

1. Every part of the Factory shall be kept in good order and in a satisfactory state of cleanliness having regard to the purpose for which that part of the Factory is used.
2. Dust collection shall be done daily and by mechanical suction means to prevent it becoming airborne and lodging in difficult and inaccessible parts of the factory. The prevention of a build up of dust is essential to allow efficient and economic cleaning.

6.32. Lighting

1. There shall be suitable and sufficient lighting in respect of :
2. every project place of work and approach thereto; and
 - 2.1. every traffic route; and
 - 2.2. every dangerous opening.
3. The lighting shall, so far as is reasonably practicable, be by natural light.
4. Suitable and sufficient emergency lighting shall be provided in any room (including accommodation in a hut), at any workplace or on any traffic route in circumstances in which persons at work are specially exposed to danger in the event of failure of artificial lighting.
5. The colour of any artificial lighting provided shall not adversely affect or change the perception of any sign or signal provided for the purposes of health and safety.

7. WELFARE FACILITIES

7.1. Sanitary Conveniences

1. Suitable and sufficient sanitary conveniences shall be provided at readily accessible places for all persons at work.
2. Sanitary conveniences shall be unsuitable unless
 - 2.1. the rooms containing them are adequately ventilated and lit;
 - 2.2. they and the rooms containing them are kept in a clean and orderly condition and are properly maintained; and
 - 2.3. Separate rooms containing conveniences are provided for men and women, except where and so far as each convenience is in a room intended to be used by only one person at a time and which has a door which can be secured from inside.

7.2. Washing facilities

1. Suitable and sufficient washing facilities shall be provided at readily accessible places for all persons at work in the workplace.
2. Without prejudice to the generality of the above washing facilities shall not be suitable unless -
 - 2.1. they are provided in the immediate vicinity of every sanitary convenience, whether or not provided elsewhere as well;
 - 2.2. they include a supply of clean hot and cold, or warm, water (which shall be running water so far as is practicable);
 - 2.3. they include soap or other suitable means of cleaning;
 - 2.4. they include towels or other suitable means of drying;
 - 2.5. the rooms containing them are sufficiently ventilated and lit,
 - 2.6. they and the rooms containing them are kept in a clean and orderly condition and are properly maintained; and
 - 2.7. separate facilities are provided for men and women, except and so far as they are provided in a room intended to be used by only one person at a time and which has a door which can be secured from the inside.

7.3. Drinking Water

1. An adequate supply of wholesome drinking water shall be provided and maintained for all persons at work in the work place.
2. Every supply of drinking water required by paragraph shall :
 - 2.1. be readily accessible at suitable places; and
 - 2.2. be conspicuously marked by a suitable sign where necessary for reasons of health or safety.
3. Where a supply of drinking water is required by paragraph 7.3.1, there shall also be provided a sufficient number of suitable cups or other drinking vessels unless the supply of drinking water is in a jet from which persons can drink easily.

7.4. Accommodation for Clothing

1. Suitable and sufficient accommodation shall be provided -

- 1.1. for any person at work own clothing which is not worn during working hours; and
 - 1.2. for special clothing which is worn by any person at work but which is not taken home.
2. The accommodation mentioned in paragraph 7.4.1 shall not be suitable unless :
- 2.1. where facilities to change clothing are required by section 8.5 it provides suitable security for clothes not so worn;
 - 2.2. where necessary to avoid risks to health or damage to the clothing, it includes separate accommodation for clothing worn at work and for other clothing;
 - 2.3. so far as is reasonably practicable, it allows, or includes facilities for drying clothing;
 - 2.4. it is in a suitable location; and
 - 2.5. it is properly maintained.

7.5. Facilities for Rest and Eating Meals

- 1. Suitable and sufficient rest facilities shall be provided at readily accessible places.
- 2. Rest facilities provided by virtue of paragraph 7.6.1 shall, where necessary for reasons of health or safety be a rest room or rest areas, and facilities where persons at work may stay during interruptions of working activity shall include suitable facilities to eat meals where food eaten in the workplace would otherwise be likely to become contaminated

7.6. Emergency Lighting

- 1. Suitable and sufficient emergency lighting shall be provided and maintained in any workplace in circumstances in which persons at work are specially exposed to danger in the event of failure of artificial lighting.
- 2. The normal precautions required by health and safety regulations, for example on the prevention of falls and the fencing of dangerous parts of machinery, means that employees are not in most cases "specially exposed" to risk if normal lighting fails. Emergency lighting is not therefore essential in most cases.
- 3. Emergency lighting shall however be provided in workplaces where sudden loss of light would present a serious risk, for example in confined spaces.

7.7. Cleaning

- 1. All company workplaces, welfare facilities, furnishings and fittings shall be kept sufficiently clean.
- 2. Waste materials shall not be allowed to accumulate in workplaces except in suitable containers.
- 3. The standard of cleanliness provided will depend on the use to which the workplace is put. For example, an area in which persons take meals shall be cleaned to a much higher standard of hygiene than a workplace. Requirements for avoiding slipping, tripping and falling hazards, shall be complied with in all cases.
- 4. Cleaning of all workplaces shall be carried out when necessary in order to clear up spillage or to remove unexpected soiling of surfaces.
- 5. Workplaces shall be kept free from offensive waste matter or discharges, for example, leaks from drains or sanitary conveniences.
- 6. Cleaning shall be carried out by an effective and suitable method and without creating, or exposing anyone to a health or safety risk.
- 7. On daily completion of work the Factory Manager shall ensure that all workplaces occupied by the company are left in a clean and orderly condition.

8. Roof & Mezzanine work

- 1. Slips and trips which may be trivial at ground level may result in fatal accidents when on a roof or work on the mezzanine floors. It is therefore vital that precautions are taken, even when access is only occasional, for example maintenance or cleaning.
- 2. As well as falling from the edge, there may be a risk of falling through a fragile material. Care shall be taken of old materials which may have become fragile because of corrosion. The risks may be increased by moss, lichen, ice, etc. Surfaces may also be deceptive.

3. Where regular access is needed to roof and the mezzanines suitable semi permanent access shall be provided and there shall be fixed physical safeguards to prevent falls from edges and through fragile roofs.
4. Where occasional access is required, other safeguards shall be provided, for example crawling boards, temporary access equipment etc.
5. A fragile roof or surface is one which would be liable to fracture if a person's weight were to be applied to it, whether by walking, falling on to it or otherwise.
6. All glazing and asbestos cement or similar sheeting shall be treated as being fragile unless there is firm evidence to the contrary.
7. Fragile roofs or surfaces shall be clearly identified.

9. **PROVISION and USE of WORK EQUIPMENT**

9.1. **Introduction**

1. The "Provision and Use of Work Equipment" Regulations (hereafter referred to as the PUWER) set important new general laws for the safe provision and use of all work equipment which is used in any company undertakings.
2. Other Regulations may set specific requirements for particular work equipment (e.g. pressure vessels, lifting equipment, electrical equipment, etc.), therefore when considering the provision and use of work equipment, the relevant specific Regulations must also be considered.

9.2. **Definitions**

1. The scope of "Work Equipment" is extremely wide and covers any machinery, appliance, apparatus or tool and any assembly of components which, in order to achieve a common end, are arranged and controlled so that they function as a whole.
2. Motor vehicles which are not privately owned fall within the scope of the Regulations. However, the more specific road traffic legislation shall take precedence when these vehicles are used on public roads. When such vehicles are used off the public highway the PUWER and the HSW Act will normally take precedence.
3. "Use" covers any activity involving work equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning, and any related expressions shall be construed as use.

9.3. **Suitability of Work Equipment**

1. All work equipment provided for use in any company undertakings shall be so constructed or adapted as to be suitable for the purpose for which it is to be used or provided.
2. "Suitable" means, suitable in any respect which it is reasonably foreseeable will affect the health and safety of any person.
3. In selecting or providing work equipment for any company undertakings, consideration must be
4. given to;
 - 4.1. the initial integrity of the equipment;
 - 4.2. the working conditions and the risks to the health and safety of persons which exist on the site or undertaking in which that work equipment is to be used;
 - 4.3. and any additional risks posed by the use of that work equipment.
5. This means that all Company personnel must ensure that work equipment is used only for operations for which, and under conditions for which, it is suitable.
6. This requires the Safety Officer and Factory Manager to assess the location in which the work equipment is to be used and to take account of any risks that may arise from the particular circumstances - for example, is the equipment to be used in a wet environment, or in a flammable atmosphere? Such factors can make unsuitable, the use of certain equipment in a particular location which would be perfectly suitable to do the work in other locations. This would be the case for non specific electrically powered equipment in wet or flammable atmospheres.

7. In such circumstances the Safety Officer and Factory Manager shall consider the selection of pneumatically or hydraulically powered equipment or electrical equipment designed for use under such conditions.
8. Account shall also be taken of the fact that the work equipment itself can sometimes cause risks to health and safety in particular locations which would otherwise be safe, for example, a machine discharging potentially hazardous dust into the working space.
 - 8.1. A suitable and sufficient risk assessment (see risk assessment section) shall be carried out for all foreseeable risks associated with the provision and use (including maintenance) of work equipment.
9. The selection of suitable work equipment for particular tasks and processes makes it possible to avoid or reduce many risks to the health and safety of people at the workplace. This applies both to the normal use of the equipment as well as to other operations such as maintenance.
 - 9.1. The risk assessment will help to select work equipment and assess its suitability for the particular task/s.
 - 9.2. All portable electrical equipment supplied by the company for use on site shall be operated through a 110 volt mains isolation transformer system, in accordance with the company's policy on the provision and use of work equipment.

9.4. Specific Risks

1. Where the use of work equipment is likely to involve a specific risk to health or safety, the Factory Manager shall ensure that
 - 1.1. the use of the work equipment is restricted to those persons given the task of using it; and
 - 1.2. repairs, modifications, maintenance or servicing of that work equipment is restricted to those persons who have been specifically designated to perform operations of that description (whether or not also authorised to perform other operations).
2. The Factory Manager shall ensure that the persons designated for the purposes of repairs, modifications, or servicing, have received adequate training related to any operations for which they have been designated.

9.5. Information and Instructions

1. The Factory Manager shall ensure that all persons who use work equipment have available to them adequate, comprehensible, health and safety information and, where appropriate, written instructions relating to the use of the work equipment.
2. The company shall ensure that any company employees who supervise or manage the use of work equipment have available to them adequate, comprehensible health and safety information and, where appropriate, written instructions explaining to the use of the work equipment,
3. The information and instructions required by either employees, managers and/or supervisors shall include information and where appropriate, written instructions on: -
 - 3.1. The conditions in which and the methods by which the work equipment may be used;
 - 3.2. foreseeable abnormal situations and the action to be taken if such a situation were to occur;
 - 3.3. any conclusions to be drawn from experience in using the work equipment;
 - 3.4. any information arising out of any risk assessment.
4. The Safety Officer and Factory Manager will need to take into account such matters as the degree of skill of the employee/s involved, their experience and training, the degree of supervision and the complexity and length of the particular job.
 - 4.1. Written instructions refer primarily to company instructions, the risk assessments, information provided by manufacturers or suppliers such as instruction sheets or manuals, instruction placards, warning labels and training manuals.
 - 4.2. There are legal duties on manufacturers and suppliers to provide sufficient information, including drawings, to make possible the correct installation, safe operation and maintenance of work equipment.
5. Company purchasing and procurement personnel shall check to ensure that the above information is being supplied.
6. Purchasing and procurement personnel shall ensure that such written information/instructions are available to those directly using the work equipment. Maintenance instructions shall be made available/passed on to those involved in the maintenance of work equipment.
7. The information and written instructions shall also be available to supervisors and managers. The amount of very detailed health and safety information they will need to have immediately available for day-to-day running of their operations, will vary but it is important that they know what information is available and where it can be found.
8. The information and written instructions shall cover all the health and safety aspects of use that will arise and any limitations on these uses together with any foreseeable difficulties that could arise and the methods to deal with them.
9. Any conclusions drawn from risk assessments and experience in the use of the equipment shall be acted upon as soon as possible, recorded and steps taken to ensure that all appropriate members of the workforce are aware of them.
10. Account shall be taken of the employees level of training, knowledge and experience. Special consideration shall be given to any employees with language difficulties or with disabilities which may impede their receipt of information.

9.6. Training

1. The Factory Manager shall ensure that all persons who use work equipment have received adequate training for purposes of health and safety, including training in the methods which may be adopted when using the work equipment, any risks which such use may entail and precautions to be taken.
2. The company shall ensure that any of their employees who supervise or manage the use of work equipment has received adequate training for purposes of health and safety, including training in the methods which may be adopted when using the work equipment, any risks which such use may entail and precautions to be taken.
3. The training shall be adequate for the circumstances.
4. It is impossible to lay down detailed requirements as to what constitutes 'adequate training' in all circumstances.
5. In deciding the extent of training which will be necessary in a particular case, the shortfall between the employee's existing competence and that necessary to use, supervise or manage the use of the work equipment with due regard to health and safety, shall need to be evaluated and made up. Account shall be taken of the circumstances in which the employee is to work (e.g. alone, under close supervision of a competent person, in a supervisory or management capacity).

9.7. Work equipment to comply with relevant Product Regulations

1. Purchasing and/or procurement personnel shall ensure that any item of work equipment provided for use in any company contract or undertaking, after the 1st January 1993, complies with the relevant Regulation/s which implements in Great Britain any of the relevant EC Product Directives which is applicable to that item of work equipment.
2. Where appropriate, purchasers or procurers shall check to ensure that the equipment bears a CE mark and ask for a copy of the EC declaration or certificate of conformity.
3. Where any item of work equipment complies with the relevant EC Product Directive/s then it shall be deemed to comply with any of the corresponding specific requirements of this policy.

9.8. Second-hand Purchased, Leased, Hired or Loan Equipment

1. Where the company provides any second-hand work equipment through purchase, lease, hire or loan, for use by any employees, the equipment must comply immediately (before it is used) with the relevant specific requirements of this policy.

9.9. Work Equipment in Use Prior to 1st January 1993

1. Work equipment in use within the company before to the 1st of January 1993 shall comply with the specific requirements and/or prohibitions contained in the Company's Work Equipment policy by the 1st of January 1997.

9.10. Installed Equipment

1. Installed equipment, (e.g. equipment purchased for installation in any building or civil engineering works) shall be installed in accordance with the manufacturers/suppliers written instructions.
2. Unless otherwise instructed by a client or his representative, items of installed equipment shall comply with the relevant Regulation/s which implements in Great Britain any of the relevant EC Product Directives which is applicable to that item of equipment.
3. Any suppliers information relation to future use or maintenance of the installed equipment shall be passed to the project Planning Supervisor for inclusion into the project Health and Safety File

9.11. Employees Duties related to Work Equipment

1. The prime duty for ensuring health and safety rests with Directors and management but employees have legal duties too, particularly under the HSW Act the Management of Health and Safety at Work Regulations 1999.
2. They include:-
3. taking reasonable care for their own health and safety and that of others who may be affected by what they do or don't do;
4. co-operating with their employer on health and safety;
5. not interfering with or misusing anything provided for the purposes of health, safety or welfare.
6. Employees must also use correctly all items of work equipment in accordance with their training and the instructions they receive to enable them to use the items safely. This means that company employees who have received the necessary and appropriate instruction and

training are required to use the work equipment correctly. For example, they shall not use portable electric drilling machines in the rain (unless they have been designed and constructed for use in such conditions), move mobile tower scaffolds except from the ground, use tractors with unguarded power take-off shafts, use welding equipment in confined spaces with inadequate ventilation, or bypass safety devices (unless expressly authorised and additional precautions are taken).

7. On machines, where particular care is needed, they shall adjust guards in line with the work to be carried out and correctly use all safety measures, equipment, devices, etc.

10. WORK EQUIPMENT - SPECIFIC REQUIREMENTS

10.1. Dangerous Parts of Machinery

1. Appropriate measures shall be taken which are effective;
 - 1.1. to prevent access to any dangerous parts of machinery; or
 - 1.2. to stop the movement of any dangerous part of machinery before any part of a person enters a danger zone.
2. The measures required by paragraph (10.1.) shall consist of-
 - 2.1. the provision of fixed guards enclosing every dangerous part where and to the extent that it is practical to do so, but where or to the extent that it is not, then
 - 2.2. the provision of other guards or protection devices where and to the extent that it is practical to do so, but where or to the extent that it is not, then
 - 2.3. the provision of jigs, holders, push-sticks or similar protection appliances used in conjunction with the machinery where and to the extent that it is practical to do so, but where or to the extent that it is not, then
 - 2.4. the provision of information, instruction, training and supervision.
3. All guards and protection devices provided shall
 - 3.1. be suitable for the purpose for which they are provided;
 - 3.2. be of good construction, sound material and adequate strength;
 - 3.3. be maintained in an efficient state, in efficient working order and in good repair;
 - 3.4. not give rise to any increased risk to health or safety;
 - 3.5. not be easily by-passed or disabled;
 - 3.6. be situated at sufficient distance from the danger zone;
 - 3.7. not unduly restrict the view of the operating cycle of the machinery, where such a view is necessary;
 - 3.8. be so constructed or adapted that they allow operations necessary to fit or replace parts and for maintenance work, restricting access so that it is allowed only to the area where the work is to be carried out and, if possible, without having to dismantle the guard or protection devices.
4. In this policy "danger zone" means any zone in or around machinery in which a person is exposed to a risk to health or safety from contact with a dangerous part of machinery;
5. The principle duty is to take effective measures to prevent contact with dangerous parts of machinery. The measures must either prevent access to the dangerous part, or stop the movement of the dangerous part before any part of a person can reach it.
 - 5.1. A risk assessment carried out under the company's General Risk Assessment Policy shall identify hazards presented by machinery.
6. If the hazard could present a reasonably foreseeable risk to a person, the part of the machinery generating that hazard is a 'dangerous part'
7. The hazard generally results in a risk when the part of the machine is in motion.
8. The risk assessment shall evaluate the nature of the injury, its severity and likelihood of occurrence. The risk to be overcome is contact of part of the body or clothing with the dangerous part of the machine.

10.2. Hierarchy of Measures

1. The measures that may need to be taken are put into a hierarchy of four levels. The four levels are;
 - 1.1. fixed enclosing guards;
 - 1.2. other guards or protection devices;
 - 1.3. protection appliances (jigs, holders, push sticks etc); and
 - 1.4. the provision of information, instruction, training and supervision.
2. The hazard or hazards from machinery shall be identified as part of the risk assessment. The assessment shall then go on to identify measures that can be taken to overcome the risks that the hazard/s present.
3. In selecting measures, it is necessary to consider each level of the hierarchy in turn from the top, and use measures from that level as far as it is practicable to do so, provided they contribute to the reduction of risk. This will often result in a combination of measures being selected. The selection process continues down the hierarchy until the combined measures are effective in overcoming the risks.
4. Most machines will present more than one mechanical hazard, and the risks associated with all of these need to be dealt with.

5. Any risk assessment carried out shall not just deal with the machine in its normal operating mode, it shall also cover activities such as setting, maintenance, cleaning or repair. The assessment may indicate that these activities require a different combination of measures from those appropriate to the machine doing its normal work. In particular, parts of machinery that are not dangerous in normal use because they are not accessible may become accessible and therefore dangerous while this type of work is being done.

10.3. Protection against Specific Hazards

1. Measures shall be taken to ensure that the risk/s posed to any person from any of the following hazards is either prevented, or, where that is not reasonably practicable, adequately controlled.
 - 1.1. any article or substance falling or being ejected from work equipment, (e.g. loose board falling from scaffolding, materials falling from a fork lift truck, etc);
 - 1.2. rupture or disintegration of parts of work equipment, (e.g. an abrasive wheel bursting, collapse of scaffold, etc);
 - 1.3. work equipment catching fire or overheating, (due for example to friction, bearing running hot, electric motor burning out, ignition by welding torch, thermostat failure, etc);
 - 1.4. the unintended or premature discharge of any article or of any gas, dust, liquid, vapour or other substance which, in each case, is produced, used or stored in the work equipment;
 - 1.5. the unintended or premature explosion of the work equipment or any article or substance produced, used or stored in it, (e.g., unplanned ignition of flammable gas or vapour, etc).
 - 1.6. the creation of dust and debris by the process
2. The measures required to prevent or control the hazards in paragraph 10.3.1 shall -
 - 2.1. be measures other than the provision of personal protective equipment or of information, instruction, training and supervision, so far as is reasonably practicable; and
 - 2.2. include, where appropriate, measures to minimise the effects of the hazard as well as to reduce the likelihood of the hazard occurring.
3. The risk assessment (see General Risk Assessment policy) shall identify these hazards, and assess the risk associated with them.
4. The risk assessment will need to consider the likelihood of such events occurring and the consequent danger if they do occur, in order to identify the preventative and/or protective measures to be taken to comply with this Regulation.

10.4. High or Very Low Temperature

1. It must be ensured that work equipment, parts of work equipment and any article or substance produced, used or stored in work equipment which, in each case, is at high or very low temperature shall have protection where appropriate so as to prevent injury to any person by burn, scald or sear.
2. The risk from contact with hot surfaces shall be reduced by engineering methods, i.e. reduction of surface temperature, insulation, shielding, barricading and guarding. The risk from hot process materials-contact, splashing, spilling, etc- shall likewise be reduced;
 - 2.1. by limiting maximum temperature, limiting liquid level, indirect steam heating methods, provision of doors etc. or:
 - 2.2. covers, temperature interlocking of doors or lids and deflection systems for hot liquid (catch pan, spill-way etc).
3. While engineering measures shall always be applied where appropriate, alternative or complementary forms of protection may also be necessary, e.g. the use of personal protective equipment and/or organisational measures such as warning signs (warning signals, visual and noise alarm signals) instructions, training, supervision, technical documentation, operating instructions, instructions for use.

10.5. Controls

1. All controls of work equipment shall be clearly visible and identifiable, including appropriate marking where necessary.
 - 1.1. Except where necessary, no control for work equipment shall be in a position where any person operating the control is exposed to a risk to his health or safety.
2. It must be assured where appropriate
 - 2.1. that, so far as is reasonably practicable, the operator of any control is able to ensure from the position of that control that no person is in a place where he would be exposed to any risk to his health or safety as a result of the operation of that control, but where or to the extent that it is not reasonably practicable;
 - 2.2. that, so far as is reasonably practicable, systems of work are effective to ensure that, when work equipment is about to start, no person is in a place where he would be exposed to a risk to his health or safety as a result of the work equipment starting, but where neither of these is reasonably practicable,
 - 2.3. that an audible, visible or other suitable warning is given whenever work equipment is about to start.
3. Managers and operators must take appropriate measures to ensure that any person who is in a place where he would be exposed to a risk to his health or safety as a result of the starting or stopping of work equipment has sufficient time and suitable means to avoid that risk.

10.6. Isolation from Sources of Energy

1. Where appropriate, work equipment must be provided with suitable means to isolate it from all its sources of energy.
2. The means to isolate equipment from its sources of energy shall not be suitable unless they are clearly identifiable and readily accessible.
3. Appropriate measures (e.g. Permit to Work System) shall be taken to ensure that re-connection of any energy source to work equipment does not expose any person using the work equipment to any risk to his health or safety.
4. Isolation means establishing a break in the energy supply in a secure manner, i.e. by ensuring that inadvertent reconnection is not possible. The possibilities and risks of reconnection shall be identified as part of the risk assessment, which shall then establish how security can be achieved. For some equipment, this can be achieved by simply removing the plug from the electrical socket. For other equipment, an isolating switch or valve may have to be locked in the off or closed position to avoid unsafe reconnection. The closed position is not always the safe position: for example, drain or vent outlets may need to be secured in the open position.
5. If work on isolated equipment is being done by more than one person, it may be necessary (as part of the permit to work system) to provide a locking device with multiple locks and keys; each shall have their own lock or key, and all locks have to be taken off before the isolating device can be removed.
6. The aim of isolation and a permit to work system, is to allow equipment to be made safe under particular circumstances, such as when maintenance is to be carried out, when an unsafe condition develops (e.g failure of a component, overheating, or pressure build-up), or where a temporary adverse environment. would render the equipment unsafe, for example electrical equipment in wet conditions or in a flammable or explosive atmosphere.

10.7. Stability

1. Managers and employees must ensure that work equipment or any part of work equipment is stabilised by clamping or otherwise where necessary for purpose of health or safety.

10.8. Lighting

1. Suitable and sufficient lighting, which takes account of the operations to be carried out, must be provided at any place where a person uses work equipment.

10.9. Maintenance Operations

1. Appropriate measures must be taken to ensure that work equipment is so constructed or adapted that, so far as is reasonably practicable, maintenance operations which involve a risk to health or safety can be carried out while the work equipment is shut down or, in other cases,
2. Maintenance operations can be carried out without exposing the person carrying them out to a risk to his health or safety; or appropriate measures can be taken for the protection of any person carrying out maintenance operations which involves a risk to his health or safety.

10.10. Markings

1. Work equipment must be marked in a clearly visible manner with any marking appropriate for reasons of health and safety.

10.11. Warnings

1. Appropriate managers and employees must ensure that work equipment incorporates any warnings or warning devices which are appropriate for reasons of health and safety.
2. Warnings given by warning devices on work equipment shall not be appropriate unless they are unambiguous, easily perceived and easily understood.

11. EQUIPMENT OPERATIONS

11.1. Introduction

1. About 50% of equipment/plant accidents are caused wholly or partly by operator error, which underlines the need the company to ensure that operators are properly trained to meet the particular conditions and nature of the work, and that managers and supervisors ensure that operators continue to operate safely. There are however, many other reasons for equipment/plant accidents including inadequate site conditions and poor plant maintenance.

2. Equipment operators must only be allowed to operate those items of plant for which they are competent and authorised.
3. Personnel may be required to undertake a health surveillance examination (medical screening) prior to employment as a equipment/plant operator.

11.2. Definitions

1. "Work Equipment and/or Plant" in this policy covers any vehicle, machinery or appliance, and any assemblies and/or attachments thereof, which, in order to perform a work activity, are arranged and controlled so that they function as a whole.
2. By way of example, the following is a non-exhaustive list of work equipment/plant covered by this policy; woodworking machinery, air compressor, mobile access platform, spraying machinery, fork lift truck, etc.
3. "Use" covers any activity involving work equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning, and any related expressions shall be construed as use.
4. Company and/or privately owned hand tools or equipment (whether powered or not) which are used on any company work activities are covered by the Provision and Use of Work Equipment section of the company health and safety policy.
5. In the rest of this policy all mobile work equipment and/or plant shall be referred to as "Plant".

11.3. Selection of Operators and Trainees

1. In selecting persons to be plant operators or trainees, preference shall be given to persons who have shown themselves to be reliable and mature.
2. The company may require all operators and potential operators to be medically screened for fitness before employment and at intervals thereafter or after sickness or an accident, when it appears likely that this may have affected fitness.

11.4. Training

1. Training in safety is most important for all plant operators and shall be provided as an integral part of their training.
2. All operators shall be trained to the level of skill necessary to work the particular plant efficiently and with care for the safety of himself, other persons, the item of plant being operated and other plant, equipment or premises.
3. The operator shall be tested during, and on completion of, training to determine their competence and to instil a responsible attitude towards their duties.
4. Managers and supervisors of plant operations anywhere in the company shall be trained in this important area of safety.
5. Their training shall include an appreciation of all the measures necessary to ensure the safe use of plant in operations coming within their area/s of control.

11.5. Stages of Training

1. The first stage of training shall cover the basic skill and knowledge required to operate plant safely and efficiently, and to carry out routine daily checks. This stage needs to be planned and pursued systematically, so that competence is established in each phase of the programme and the necessary range of skills and knowledge is built up gradually to contend with more demanding operations.
2. The second stage is specific job training, tailored to the company or workplace needs and shall include:
 - 2.1. knowledge of the operating principles and controls of the plant to be used and any special attachments, and routine inspection and servicing in accordance with the manufacturers instructions, in so far as they may reasonably be carried out by the operator.
 - 2.2. training and practice in the work to be undertaken
3. after successful completion of the first two stages, the operator shall be given familiarisation training at the workplace under supervision, e.g. the plant to be used, site layout, site, company safety rules, the features of the work, emergency procedures etc.
4. It shall not be assumed that an employee who joins the company as a trained plant operator has been adequately trained to work safely in the new workplace or new work conditions. Similarly when changes occur at work, for example in methods or nature of the work, or in the work area or type of plant or attachments, the plant operator, although experienced, is likely to require specific job training
5. It is essential that a competent instructor shall prepare and carry out a suitable programme of training under realistic working conditions.

6. Any operator not displaying good operating standards shall be considered for refresher training or discipline if due to inattention or carelessness.

11.6. Employee's Duties

1. Every employee must take reasonable care for their own health and safety and that of other persons who may be affected by their actions or lack of action.
2. Every employee must use any machinery, equipment, transport equipment, means of production or safety device provided to him/her in accordance both with;
 - 2.1. any training in the use of the equipment concerned which has been received by him/her; and
 - 2.2. with any information and/or instructions regarding that use which has been provided to him/her.
3. Every employee must inform his/her Director or Manager;
 - 3.1. of any work situation which they reasonably consider represents a serious and immediate danger to health and safety;
 - 3.2. of any matter which they (with their training and instruction) would reasonably consider represents a shortcoming in the company protection arrangements for health and safety, which in either case affects them or arises out of or in connection with their activities at work.

11.7. Maintenance

1. All company managers responsible for the provision and/or use of work equipment shall ensure that all work equipment is maintained in an efficient state, in efficient working order and good repair.
2. 'Efficient' relates to how the condition of the equipment might affect health and safety.
3. It is important that equipment is maintained so that its performance does not deteriorate to the extent that it puts people at risk.
4. The extent and complexity of maintenance will vary enormously, from simple checks of hand-held tools (for example to identify loose heads on hammers or splayed mushroom heads on chisels) to a substantial integrated programme for complex process plant.
5. Equipment shall be checked periodically to ensure that safety related features are functioning correctly.
6. A fault which effects production is normally apparent within a short time, however a fault in a safety critical system could remain undetected unless maintenance procedures provide adequate inspection or testing.
7. The frequency at which equipment needs to be checked is dependent on the equipment itself the conditions of use and the seriousness of the risk involved; it could be each day, every three months, or even longer.
8. Appropriate Directors and Project Managers shall ensure that suitable maintenance systems are established and maintained for work equipment used on or in any Company construction project.
9. Maintenance of work equipment shall only be carried out by authorised persons, who have received adequate information, instruction and training relating to that work; these shall cover the reasons for the maintenance activities as well as the procedures and techniques which are applied.

11.8. Routine Maintenance

1. Routine maintenance shall include, periodic lubrication, inspection and testing, based on the recommendations of the equipment manufacturer; it shall also take account of any specific legal requirements relating to particular work equipment, e.g. inspection and testing of lifting gear, scaffolds, etc.
2. However, while in most cases it would be expected that the combination of the manufacturer's instructions and legal requirements would constitute suitable maintenance, some work equipment (e.g. equipment used in particularly arduous conditions), may require further measures.

11.9. Planned Preventative Maintenance

1. When inadequate maintenance could cause the equipment, guards or other protection devices to fail in a dangerous way, a formal system of planned preventative maintenance shall be provided.
2. Although all maintenance is preventative in some respect, the primary aim of planned preventative maintenance is to prevent failures occurring while the equipment is in use.

3. This is achieved through a system of written instructions which are used to initiate inspection, testing and, perhaps more importantly, the periodic replacement or refurbishing of components or equipment before they reach the end of their useful life.
4. The instructions shall be based as appropriate on the manufacturer's recommendations and/or experience from previous service and condition monitoring.

11.10. Maintenance Log

1. The Factory Manager shall ensure that a record of maintenance (maintenance log) is kept for each item of work equipment under a planned-preventative maintenance system and for equipment where there is a legal requirement to record inspection and testing.
2. A maintenance log will also provide information for future planning and inform maintenance personnel and others of previous action taken.
3. Where there is a maintenance log, it must be kept up-to-date.
4. Other legislation for particular types of equipment may require records of maintenance to be provided in a specific way, especially when this includes testing.
5. Maintenance Logs and details of maintenance systems shall be made available to clients and/or their representatives upon request.

11.11. Maintenance of Portable Electric Equipment

11.11.1. Legislation

1. The Health and Safety at Work Act (HSW Act) requires employers to provide and maintain plant that is, so far as is reasonably practicable, safe and without risks to health.
2. The Electricity at Work Regulations (EAWR), made under the HSW Act, impose more detailed duties regarding inspection, testing and maintenance of electrical equipment.
3. In this policy the term "Portable" is used in its broadest sense, it covers standard electrical equipment, appliances or tools which are movable or transportable and which are connected to an electric supply by way of a flexible cable and which are intended to be held in the hands whilst being operated. Where highly specialised electrical equipment is used expert advice shall be sought for the maintenance of such equipment.

11.11.2. Voltages

1. Three systems are commonly used for supplies to portable equipment :
 - 1.1. Single phase 240 Volts (240V). All domestic appliances operate on this system, as do most commercial equipment used in non-hazardous surroundings.
 - 1.2. Single or three phase 415V. Some heavy duty movable industrial equipment such as welders operate on this voltage
 - 1.3. Reduced low voltage 110V. This is used for safety where hand held equipment is used in construction work or in other hazardous surroundings.
2. Equipment is connected via a BS 4343 plug and socket (coloured yellow).
3. The transformer connection for a 110V reduced low voltage supply has the winding centre point earthed . This gives a potential of 55V to earth for most hand held, single phase equipment; or 63,5V to earth for heavier three phase equipment.

11.11.3. Types of Equipment Manufacture

1. Two construction techniques for 240V equipment are used to safeguard against shock from indirect contact. A third method uses extra low voltage.

11.11.4. Class I Equipment

1. Protection is given by basic insulation and by earthing all exposed conductive parts of the equipment. Earthing is achieved by interconnecting the metallic casing and handles with a circuit protective conductor (cpc). The cpc is connected via the flex and the earth pin on a plug to the installation earth
2. 240V single phase equipment will therefore have a three core flex incorporating a green/yellow cpc. if the insulation on the equipment becomes damp, burns-out or is otherwise damaged, fault current will flow through the cpc and cause an overcurrent protective device to operate.
3. The overcurrent protective device may be a plug or circuit fuse, or a miniature circuit breaker (mcb), or a residual current device (rcd).

11.11.5. Class II Equipment

1. Protection does not rely on basic insulation only. Additional (supplementary) insulation is provided. This construction will be either, All Insulated or Double Insulated.
2. There is no connection of exposed metallic parts or cpc and no reliance on the plug fuse or external overcurrent protective devices for shock protection.
3. 240V single phase equipment will have two core flex. If the equipment becomes damp, or otherwise damaged, the plug fuse or other overcurrent protective device will operate to restrict burn-out or lesser thermal effects. Equipment carries a standard Class II construction mark.

11.11.6. Class III Equipment

1. Protection against electric shock is by operation with a SELV supply. That is extra low voltage (below 50V ac) on a system separated from earth. Equipment carries a standard Class III construction mark.

11.11.7. Electrical accidents

1. Most electrical accidents involve portable equipment, plugs or extension leads. Electric shock is not the only consequence, many electrical incidents result in burns or fire. The use of a sensitive RCD (residual current device) will reduce danger from shock but will not completely eliminate hazards.
2. Even when an RCD operates correctly, there will be a fraction of a second before disconnection occurs. The person holding the equipment will experience a momentary shock, short enough to avoid causing an electrically related injury but long enough to cause an involuntary reaction which could cause the person to, for example, unbalance and fall off a ladder or come into contact with moving parts or hot surfaces or materials.
3. A RCD shall never be relied upon to provide complete electrical safety, it is intended to give secondary shock protection when insulation fails.
4. The RCD device shall be operated frequently by using the test button. This checks that the RCD is functioning and helps to keep it working freely.
5. A test failure shall be reported for attention by a competent person) before any electrical equipment is plugged in.
6. Electric shocks are often received when a person who is in contact with the ground or earthed metalwork, touches some part which has become live at mains voltage. It should be appreciated that a shock potential in excess of 50V can cause death.
7. The standard UK mains supply at 240V is technically defined as low-voltage but is in fact lethal.

11.11.8. Competent Persons

1. All decisions and technical work carried out to comply with the EAWR require a level of competence beyond that of an untrained non-electrical person.
2. The requirements for competence are defined in the EAWR.

11.11.9. Identification of Equipment

1. An initial identification of all portable equipment and its condition shall indicate the scope of the work for future programming. This inspection shall be carried out by a competent person. The person carrying out the identification shall draw up a list of equipment that shall be included in the future planned inspection, testing and maintenance programme.
2. This opportunity shall be taken to report on the condition of the equipment and the inspector (where competent) could be given authority to carry out repairs to faulty equipment.
3. Some form of labelling and logging system is essential, to identify equipment which has been inspected and logged.
4. Any unacceptable or unrepaired items of equipment shall be given an "Unfit for Use" label and the plug removed.

11.11.10. Routine Inspections

1. Once the extent of the work has been established and all equipment has been certified and logged to be in an acceptable condition, a programme of routine inspections shall be formulated.
2. The period of time between full inspections of different types of equipment will probably vary.
3. A simple procedure for daily visual inspection by the user of each item of equipment shall be introduced. This will engender responsibility for care in the use of equipment and an appreciation of the safety standards.
4. The visual inspection shall be carried out along the following lines:-
 - 4.1. Visually check the equipment for signs of damage to the item of equipment, its connection lead and the plug (including the security of the cable cord grip).
 - 4.2. If the check reveals damage or inadequate temporary repairs to the lead or plug, the equipment shall be taken out of use.
5. The intended user of the equipment shall be trained to carry out these basic checks.

11.11.11. Planned Inspection and Test

1. Planned inspections and tests shall to be carried out by an electrically skilled, trained and competent person with a knowledge of the function and safety requirements of the item of equipment under inspection.

11.11.11.1. Inspection

1. Closely examine cable termination's in the plugs and within the equipment;
2. Check polarity, fusing, condition of equipment and leads;
3. Check that the equipment is suitable for the application and the environment.

11.11.11.2. Electrical Testing

1. Before carrying out any electrical tests the inspector shall identify and unplug the item of equipment and make a visual inspection of its condition.
2. Any of the following irregularities shall be recorded
 - general condition of the equipment and its cleanliness;
 - broken parts or signs of misuse or unauthorised modifications to electrical or mechanical parts;
 - signs of overheating;
 - condition of the flex throughout its length;
 - condition of the plug (i.e. remove the cover, examine the cord grip and cable security, check conductor termination's and fusing);
 - so far as possible, check the flex connection at the equipment, examine the cord grip and cable security, check conductor termination's.
3. Electrical testing shall only be carried out when the inspector is satisfied with the results of the visual inspection.

12. Reporting Procedures for Injuries, Diseases and Dangerous Occurrences

12.1. All Injuries, Poisoning or Diseases

1. All injuries, poisonings or work related diseases, no matter how minor, must be reported and entered into the Accident Book, Form BJ 510.
2. A Company Injury Accident and Damage Report Form must be completed in full and signed by the injured person or person completing the report (if injured person cannot)
3. All injury accidents an/or plant, property and/or equipment damage must be investigated by the immediate supervisor in charge of the activities.
4. The relevant parts of the Injury, Accident & Damage Report Form must be completed and signed by the immediate supervisor in charge of activities.
5. The Company Report Form must be sent to the company Safety Officer within two working days of the incident by the person completing the report.

12.2. Notifiable Injuries, Conditions and Dangerous Occurrences

1. Where any person as a result of an accident arising out of or in connection with any Company work activities (on or off Company premises), dies or suffers any of the injuries or conditions listed in Appendix 1, or where there is any of the Dangerous Occurrences listed in Appendix 3 (even if no one is injured), the incident must be reported by the work supervisor immediately to the Safety Officer if necessary by telephone.
2. The Safety Officer shall be responsible for reporting the incident to the relevant enforcing authority by telephone within 24 hours.
3. A Form F2508 (for injuries) or F2508A (for diseases) shall be completed by the Safety Officer and forwarded to the relevant enforcing authority within 7 days of the incident occurring.
4. In all cases of notifiable injuries, conditions or dangerous occurrences the site of the incident must not be disturbed or interfered with (unless to prevent risk to the health or safety of persons or damage to plant or property) until approval has been given by the Safety Officer.

12.3. Death of an Employee within One Year

1. Where an employee has suffered an injury or condition notifiable above, which is a cause of their death within one year of the date of the incident, the Safety Officer must inform the enforcing authorities and where appropriate the Principal Contractor (in writing) of the death as soon as it comes to his knowledge, whether or not the incident has been notified as above

12.4. Incapacitation for more than 3 Consecutive Days

1. Where an employee is incapacitated from (work of a kind which that person might reasonably be expected to do in the normal course of their employment) for more than 3 consecutive days because of an injury resulting from an accident at work, this accident must be reported to the Safety Officer and if necessary any Principal Contractor, as soon as possible after the 3 day period.
2. In counting up the 3 day qualifying period, do not count the day of the accident but do include any days which would not have been working days (i.e. holidays and weekends).
3. A Form 2508 shall be completed by the Safety Officer and forwarded to the relevant enforcing authority within 7 days of the date of the incident.

12.5. Reporting Poisonings and Diseases

1. Where a person at work suffers from one of the poisonings or diseases listed in Appendix 2, the incident becomes notifiable to the enforcing authorities upon receipt of a written statement (Doctors note) prepared by a Medical Practitioner diagnosing the poisoning or disease as one of those listed in Appendix 2.
2. A Form 2508 A shall be completed by the Safety Officer and forwarded to the relevant enforcing authority.
3. The Project Director shall inform any project Principal Contractor of the incident.

12.6. Reporting of Incidents involving Movement of Vehicles

1. Accidents relating to the death, injury or condition (listed in Appendix 1) of a person arising out of or in connection with the movement of a vehicle on a road will become reportable only if that person:-
 - 1.1. was killed or suffered an injury or condition as a result of exposure to a substance being carried by the vehicle or
 - 1.2. was either himself engaged in, or
 - 1.3. was killed or suffered an injury or condition as a result of the activities of another employee who was at the time of the accident engaged in work connected with the loading or unloading of any article or substance on to or off the vehicle.

12.7. Visitors and Members of the Public

1. A notifiable Accident to a visitor to the project or a member of the public, which arises out of or in connection with the company's activities, must be reported as per above.

12.8. Self Employed Persons

1. Any notifiable Accident to any self-employed person working on Company work activities must be notified as per above.

12.9. Employed Persons

1. A notifiable Accident to any person working on Company work activities, but employed by another person, must be reported immediately to the person's employer, the company Safety Officer and if applicable any Principal Contractor by the Project Director.

12.10. Administration & Accident Investigation

1. It is the duty of all persons with Health & Safety responsibilities (or their deputy when applicable) to immediately notify the Safety Officer (by telephone) of any notifiable Accidents or Dangerous Occurrences involving employees, other persons, plant, or vehicles.
2. On receipt of the information the Safety Officer shall, in consultation (and where appropriate with) the Safety Committee, carry out a full investigation into the circumstances leading up to the incident. A report will be drawn up by the Safety Officer detailing:
 - The circumstances of the accident including photographs and diagrams wherever possible
 - The nature and severity of the injury sustained
 - The identity of any eyewitnesses
 - The time, date and location of the incident
 - •The date of the report
3. All eyewitness accounts will be collected as near to the time of the accident as is reasonably practicable. All persons able to contribute to the investigation will be interviewed and asked to supply written and signed statements. Depending on the seriousness of the incident in question, suspension of company employees involved may be necessary, whilst the incident is under investigation.
4. The completed report will then be submitted to and analysed by the Safety Committee who will attempt to discover why the accident occurred and what action should be taken to avoid a recurrence of the problem.
5. All reports will be submitted to the company lawyers who will advise on liability, proceedings and quantum of damages. The lawyers will then submit the report to the company's insurance risk advisors for assessment.
6. A follow up report will be completed after a reasonable period of time examining the effectiveness of any new measures adopted.
7. Any information pertaining to accidents or dangerous occurrences required by the enforcing authorities, insurance company, DSS or other interested bodies shall only be supplied by the Safety Officer.
8. All accident books (Form BI 510) must be held in the company office for at least 15 years from the date of the last entry.

13. Display Screen Equipment

1. It is the policy of Newman Scott Limited to comply with the law as set out in the Health and Safety (Display Screen Equipment) Regulations.
2. Newman Scott Limited will conduct health and safety assessments of all workstations staffed by employees who use VDU screens as part of their usual work and will ensure that all workstations put into service after January 1st 1993 meet the requirements set out in the Schedule to the Regulations and that all workstations meet these requirements no later than December 31st 1996.
3. The risks to users of VDU screens will be reduced to the lowest extent reasonably practicable.
4. VDU screen users will be allowed periodic breaks in their work.
5. Eyesight tests will be provided for VDU screen users on request .
6. Where necessary VDU screen users will be provided with the basic necessary corrective equipment such as glasses or contact lenses.
7. All VDU screen users will be given appropriate and adequate training on the health and safety aspects of this type of work and will be given further training and information whenever the organisation of the workstation is substantially modified.

14. APPENDIX 1

14.1. NOTIFIABLE INJURIES AND CONDITIONS

1. Any of the following injuries or conditions must be reported immediately to the Safety Officer shall then inform the local enforcing authority by telephone within 24 hours of the incident occurring and complete and forward a Form 2508 to the enforcing authority within 7 days of the date of the incident occurring.
2. The Project Director shall inform any relevant project Principal Contractor directly.
 - Fracture of the skull, spine or pelvis,
 - Fracture of any bone in:
 - the arm or wrist, but not in the hand
 - the leg or ankle, but not in the foot
 - Amputation of:
 - a hand or foot
 - a finger, thumb or toe, or any part thereof if the joint or the bone is completely severed
 - The loss of sight of an eye, a penetrating injury to an eye, or a chemical or hot metal burn to an eye

- Any injury (including burns) requiring immediate medical treatment or loss of consciousness, resulting in either case from electric shock from any electrical circuit or equipment, whether or not due to direct contact.
- Loss of consciousness resulting from lack of oxygen
- Either acute illness requiring medical treatment, or loss of consciousness, resulting in either case from the absorption of any substance by inhalation, ingestion or through the skin.
- Any other injury which results in the injured person being admitted immediately into hospital for more than 24 hours.
- Where the person is incapacitated from normal work for more than 3 consecutive days.

15. APPENDIX 2

15.1. REPORTABLE DISEASES AND LINKED WORK ACTIVITIES

1. Upon receipt of a Doctor's note diagnosing any of the poisonings or diseases listed in RIDDOR Appendix 2, personnel shall report immediately to the Safety Officer who shall then inform the local enforcing authority on a Form (2508A).
2. The Project Director shall issue a copy of the company injury accident and damage report form to any relevant project Principal Contractor within 7 days of receipt of the Doctor's note.

16. Appendix 3

16.1. Notifiable Dangerous Occurrences

1. Where any Dangerous Occurrence listed below occurs (even if no one is injured) the incident must be reported (immediately by telephone) to the Safety Officer who shall then inform the local enforcing authority by telephone within 24 hours of the incident occurring. A Form 2508 must be completed by the Safety Officer and sent to the relevant enforcing authority. The Project Director shall inform any relevant project Principal Contractor directly.
2. Lifting Machinery Etc.
 - 2.1. The collapse, overturning or failure of any load bearing part of:
 - 2.1.1. any lift, hoist, crane, derrick or mobile powered access platform.
 - 2.1.2. any excavator or pile. driving frame or rig having an overall operating height of more than 7 metres
3. Pressure Vessels
 - 3.1. Explosion, collapse or bursting of any closed vessel, including a boiler or boiler tube in which the internal pressure was above or below atmospheric pressure and
 - 3.2. which might have been liable to cause the death of, or any of the injuries or conditions listed in Appendix 1 to any person or
 - 3.3. which resulted in the stoppage of the plant involved for more than 24 hours.
4. Electrical short circuit or overload attended by fire or explosion which resulted in the stoppage of the plant involved for more than 24 hours and which, taking into account the circumstances might have been liable to cause the death of, or any of the injuries or conditions listed in Appendix 1 to, any person.
5. An explosion or fire in any plant or place which resulted in the stoppage of the plant or suspension of normal work in that place for more than 24 hours, where the explosion or fire was due to the ignition of process materials, their by-products (including waste) or finished products.
6. The sudden, uncontrolled release of one tonne or more of highly flammable liquid, within the meaning of the HFL and LPG Regulations 1972, flammable gas or flammable liquid above its boiling point from any system, plant or pipe line.
7. A collapse or partial collapse of any scaffold which is more than 5 metres high which results in a substantial part of the scaffold falling or over-turning and the collapse or partial collapse of a suspended scaffold or working platform more than 5 metres high.
8. Any unintended collapse or partial collapse of:-
 - 8.1. any building or structure under construction, reconstruction, alteration or demolition, involving a fall of more than 5 tonnes of material, or
 - 8.2. any floor or wall of any building being used as a place of work.
9. The uncontrolled or accidental release or the escape of any substance from any apparatus, equipment, pipe-work, pipe-line or land-fill site which, having regard to the nature of the substance, is liable to cause the death of or any of the injuries or conditions listed in Appendix 1, or other damage to the health of any person.
10. Any unintentional incident in which plant or equipment either comes into contact with an un-insulated overhead electric line in which the voltage exceeds 200 volts, or causes an electrical discharge from the electric line by coming into close proximity to it.

