

IRISH INDUSTRIAL TANKS LTD. **(I.I.T.)**



SAFETY STATEMENT

Revised: January 2016

Revision 002



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SECTION 1

SAFETY AND HEALTH POLICY

It is the policy of the I.I.T... to comply with the Safety, Health and Welfare at Work Act 2005, the Safety, Health and Welfare at Work (General Application) Regulations 2007 and the Safety Health and Welfare at Work (Construction) Regulations 2013 and all other legislation relevant to business and operations carried out by I.I.T. and their employees. The Health and Safety at Work Act 1974, also referred to as HSWA, is the primary piece of legislation covering occupational health and safety in the UK. Under HSWA, employers have a duty to provide a safe place of work and protect the health and safety of their employees and others that may be affected by their work activities. It also places duties on employees to cooperate with their employer, so far as is necessary, to enable their employer to comply with his health and safety duties as set down under HSWA and under relevant legislation.

It is our aim to achieve a working environment, which is free of work related accidents and ill health and to this end I will pursue continuing improvements from year to year.

We undertake to discharge our statutory duties by:

1. identifying hazards in the workplace, assessing the risks related to them and implementing appropriate preventative and protective measures;
2. providing and maintaining safe plant and work equipment;
3. establishing and enforcing safe systems of work;
4. recruiting and appointing personnel who have the skills, abilities and competence equal to their role and level of responsibility;
5. ensuring that tasks given to employees are within their skills, knowledge and ability to perform;
6. ensuring that technical competence is maintained through the provision of refresher training as appropriate;
7. promoting awareness of health and safety and of good practice through the effective communication of relevant information;
8. monitoring our safety performance by regular site inspections from our safety officer
9. Furnishing sufficient funds needed to meet these objectives.

It is the policy of I.I.T...to consult all staff and employees on matters of health and safety. All employees are hereby notified of our policy. It is the obligation of all employees to act responsibly and to do everything that is reasonable to prevent injury to themselves, their fellow workers and any other person who may visit their place of work. Employees are encouraged to comply with their duties under the 2005 Act and 2007 General Application regulations and to notify I.I.T... of identified hazards in the workplace.

This health and safety policy is reviewed annually to monitor its effectiveness and to ensure that it reflects changing needs and circumstances. This policy is to be read in conjunction with the organisation, arrangements and applicable safe systems of work outlined in the safety statement.

This statement is distributed to all I.I.T... employees.

Signed:

Charles Fox

Date: 22nd January 2016

SECTION 2

IMPLEMENTATION OF COMPANY POLICY

Whilst the overall policy responsibility for Health and Safety matters must rest at the highest management level in the Company, nevertheless, all employees, at every level, are required by the Act to accept varying degrees of responsibility for carrying out that policy.

It should be remembered that the Act imposes obligations upon each and every one of us – and that in the final analysis it is up to each individual employee to discharge these obligations to the full.

We all have a vital part to play – for the Managing Director downwards. It is for this reason that the duties of those employees with key safety responsibilities and functions have been made clear; whenever they are absent from office their responsibilities will be covered by others.

SECTION 3

COMPANY SAFETY ORGANISATION

The key note to the success of the company in maintaining a high standard in Safety, Health and Welfare lies in its ability to maintain a flexible organisation to deal with all matters of concern to the Health, Safety and Welfare of its employees howsoever arising.

The Executive responsible for Safety matters, and the Safety Officers, are presently based at Head Office. This ensures that there is adequate inspection of, and reporting on, all contracts being undertaken by the company as well as providing coverage of working places, in order to maintain an environment which is safe, without risks to health, and adequate as regards facilities and arrangements for the welfare of its employees whilst at work.

The Company is justifiably proud of its past record and reiterates that it will continue to do all that is possible to continue to secure the Health, Safety and Welfare of its employees whilst at work.

Safety Legislation incorporated in the safety statement.

- Safety Health & Welfare at Work Act 2005 (SHWW Act 2005)
- Safety Health & Welfare at Work (General Application) Regulations 2007
- Safety Health & Welfare at Work (Construction) Regulations 2013

UK Safety Legislation incorporated in the safety statement.

U.K Legislation & Requirements

I.I.T. and Contractors' employees will conform in all aspects of his legal duties and responsibilities as laid down by U.K Legislation and to these instructions. In the case of conflict or contradiction, the most stringent requirement will apply. These instructions do not relieve I.I.T. from his legal or contractual obligations.

The Health and Safety at Work Act 1974, also referred to as HSWA, is the primary piece of legislation covering occupational health and safety in the UK. Under HSWA, employers have a duty to provide a safe place of work and protect the health and safety of their employees and others that may be affected by their work activities. It also places duties on employees to cooperate with their employer, so far as is necessary, to enable their employer to comply with his health and safety duties as set down under HSWA and under relevant legislation.

- Health & Safety at Work Act: 1974
- Construction (Design & Management) Regulations: 2007
- Working at Height Regulations: 2005
- The Management of Health & Safety at Work Regulations: 1999
- Provision and Use of Work Equipment Regulations: 1998
- Lifting Operations and Lifting Equipment Regulations: 1998
- Manual Handling Operations Regulations: 1992
- Workplace (Health, Safety & Welfare) Regulations: 1992

SECTION 4

DUTIES OF PERSONNEL

This section details the duties of each level of employee in matters of Safety and is designed to define in clear and concise terms their key responsibilities and functions in order that the best possible standards are established, maintained and improved upon, as circumstances dictate.

By definition, it is intended that everyone will properly and effectively recognise their obligations and thus ensure each will contribute to the welfare of fellow human beings by the prevention of accidents and the elimination of health hazards.

SECTION 5

THE MANAGING DIRECTOR:

Shall direct and control the Safety, Health and Welfare policy of the Company as agreed from time to time by the Directors, and ensure, through the Executive responsible for safety matters, that all levels of management and staff are fully aware of that policy and that they carry out the duties placed upon them by the Act as individuals. In addition thereto he shall:

- Ensure that such policy as is necessary to maintain and continue the high standard already achieved by the Company in this field is implemented, agree the accidents, and introduce any other measures necessary for ensuring that the Safety, Health and Welfare requirements of the Act are carried out.
- Ensure that Safety training courses and programmes, which may be considered by the Directors necessary to train and equip employees at all levels to recognise and discharge their obligations under the Act, are put into effect and continuously reviewed, revised and maintained.
- Liability of directors is also set out in section 80 of the Safety, Health & Welfare at Work Act 2005

SECTION 6

COMPANY DIRECTORS

Shall have full knowledge and understanding of Company policy and in particular such health and safety requirements as may be applicable to their sphere of operations in the Company. In addition thereto each individual Director shall:

- a) Ensure that Company policy is fully implemented by line management and all employees under his direct control at all times.
- b) Ensure that the Safety Officer directly responsible to him is given the fullest co-operation and authority to carry out his duties fully and effectively, and support him in such decisions as may be necessary to comply with the requirements of the Act, or the instructions or orders of the Health and Safety Authority Inspectorate, difficult though these may be at times.
- c) Liability of directors is also set out in section 80 of the Safety, Health & Welfare at Work Act 2005
- d) The Management of Health & Safety at Work Regulations: 1999 – UK Legislation

SECTION 7

SAFETY OFFICERS / SAFETY ADVISORS – If Required

Function:-

- a) To implement the Company's safety policy, as directed by the Executive responsible for safety matters.
- b) To advise line management on the implementation of accident prevention policies.
- c) To ensure that the requirements of Common and Statute law, the Health and Safety Authority, the Company, its clients and main contractors are fully met regarding matters of safety on site.
- d) Liaise with other companies' Safety Officers involved in on-site operations.

Objectives:-

- a) To encourage, initiate, control and maintain a positive attitude towards Company safety policy amongst all levels of employees.
- b) To enhance the Company's reputation in accident prevention by continuing to improve the Company's safety record.

Relationships:-

- a)
 - 1. Functional
To liaise with the Executive Officer responsible for safety matters.
 - 2. Operational
To liaise with the divisional directors concerned.
- b) To liaise with:
 - 1. Supervising Engineers
 - 2. Project Engineers
 - 3. Personnel Officer/Supervisors
 - 4. Foremen and other persons in charge on site
 - 5. Client appointed Project Supervisor (Design)
 - 6. Client appointed Project Supervisor (Construction)
 - 7. Client appointed Safety Facilitators

Operational Duties:-

In order that the Company's Safety Policy can be implemented to the full, all Safety Officers shall have the following duties:-

- a) To maintain a comprehensive knowledge of all current legislation affecting Safety, Health and Welfare matters, and to this end keep and maintain an adequate reference library of relevant Acts, Regulations, Orders, Codes of Practice, Guidance note and the like, which may assist him in his duties.

- b) To liaise with the Health and Safety Authority to ensure that any of their requirements are dealt with efficiently and to liaise with the Senior Management involved.
- c) To liaise with the Safety Representatives and, whenever possible, attend and advise Safety Committee meetings.
- d) To ensure, so far as practicable, that both staff and operatives understand the purpose and detail of Company policy and their individual responsibilities imposed by the Health and Safety at Work Act, and similar Statutes, for themselves and especially those for whom they are responsible, including Sub-Contractors' employees, servants or agents.
- e) To ensure that adequate means of communicating exist within their spheres of operation in the Company, for the passing and receiving of information, and to ensure that:
 - 1. The reporting and recording of injury, damage and accident
 - 2. That immediate attention is given to any Improvement or Prohibition Notice served by the Health and Safety Authority on the Company or its Sub-Contractors.
 - 3. The distribution of any special or general information relating to known or anticipated hazards or problems on sites.
- f) To make visits to sites at a frequency dictated by the size and complexity of the contract, and to carry out inspections relative thereto. Such inspections should, whenever possible, be conducted with a senior supervisor working on that site. Advice shall be given on the identification and rectification of actual and potential hazards and on the provision of safe systems of work, including the use of Permits-to-Work procedure.
- g) To investigate injury and non-injury accident cases, damage only and near-miss incidents. To submit reports on their findings and make recommendations to avoid any recurrence thereof and when necessary to report any accidents to the Company's insurers and make such further enquiries as may be required. To submit information in relation to accidents as is required by legislation to the Health and Safety Authority.
- h) To encourage and where necessary enforce the wearing of appropriate safety clothing and equipment.
- i) To liaise with the Company's insurers Inspection Engineers for the statutory examination of plant and equipment within their areas of operation.
- j) To attend, advise upon or recommend any safety courses which will assist in improving the efficiency of the safety function of all employees.
- k) To review new legislation, Codes of Practices etc. and make recommendations where necessary.
- l) Domestic Sub-Contractors
In consultation and liaison with divisional Directors, Project Engineers and Project Supervisors in charge of contracts, ensure that where domestic Sub-Contractors enter upon any premises or sites owned, controlled or occupied by the Company, whether they be as visitors or Sub-Contractors, they shall be made aware of Company safety policy with regard to Sub-Contractors as set out herein, and that whilst working on such premises or sites they are required to carry out their operations and undertakings to comply with such statutory and common Law requirements as are applicable to them with regard to Safety, Health and Welfare matters.

Authority of the Safety Officer and Safety Advisors

a) Stop Work Notices

All Safety Officers have the necessary authority invested in them to discharge their duties fully and effectively in order to carry out their obligations as set out herein. They are authorised by the Directors to take such steps as may be considered necessary to prevent or remedy any potentially hazardous or dangerous situation arising, even to the extent of stopping work where, in their opinion, there is no alternative but to do so.

In such cases they shall immediately inform in writing the Director responsible, as well as the Project Engineer, Supervisor and Foreman/Charge hand in charge of the contract on site, of action they propose to take or have taken. They shall also prepare and submit a report thereof to the Director concerned, send a copy thereof to the Executive Officer responsible for safety matters without delay and follow up any action required where necessary.

Safety Advisors can only stop work with the consent of any of the project supervision.

SECTION 8

PROJECT SUPERVISORS / ENGINEERS IN CHARGE OF CONTRACTS

Shall have a comprehensive knowledge of Company policy and their individual responsibilities under the SHWW Act 2005, as well as those of all site based personnel under their direct control. In addition thereto each individual Project Supervisor and Engineer shall:

- a) Ensure that proper and safe systems of working, and means of avoiding dangerous or potentially hazardous conditions, are adopted.
- b) Determine, at planning stage, in consultation with Safety Officers:
 - 1. The most appropriate methods of working to be adopted on site, including methods of induction for all staff under their control.
 - 2. The facilities required for the smooth functioning of the site with regard to lighting, sanitary arrangements, welfare facilities and the like.
 - 3. The responsibilities of Sub-Contractors and others employed by the Company with regard to the provisions of the Act, any other relevant legislation currently in force, as well as any conditions imposed by the Company as to their conduct on site.
 - 4. Inform the Safety Officer concerned of projected dates of commencement of contracts, and all matters of concern to the Safety, Health and Welfare of employees on sites.
 - 5. By their conduct set a personal example on sites by wearing appropriate protective clothing, headgear, goggles and the like where necessary.

SECTION 9

FOREMEN AND CHARGEHANDS

Shall know and understand Company policy with regard to matters of Health and Safety as is applicable to the sites on which they are engaged and shall:

- a) Ensure that all operatives use only acceptable working methods, incorporate safe instructions in all orders given by them and that a safe system of working is applied at all times.
- b) By their conduct ensure that operatives do not take unnecessary risks and restrain them from doing so of their own accord whenever necessary.
- c) By their conduct discourage horseplay and reprimand those who fail to consider the Safety and Health of themselves and others, whether employees of the Company or otherwise.
- d) Instruct all new employees, particularly apprentices, on the known hazards on site, any necessary precautions of which they should be aware and where appropriate ensure that they are issued with protective clothing, headgear, goggles and the like.
- e) Consult and co-operate with the Safety Officer at all times with regard to matters of Health and Safety.
- f) By their conduct set a personal example by wearing appropriate protective clothing, headgear, goggles and the like at all times whilst on site.
- g) The general duties of persons in control of places of work is set out in Section 15 of the SHWW Act 2005

SECTION 10

DUTIES OF EMPLOYEES

Shall use only the correct and recognised methods and systems of working, the correct tools and equipment for the job, keep their tools in good and safe condition, and report any defects in plant, tools or equipment to their Supervisor without delay. In addition thereto each individual operative shall:

- a) Acquire a working knowledge of such Company policy as is applicable to their work (there is a statutory duty on each employee as well as the Company to comply with Section 13 of the SHWW Act 2005).
- b) Develop a personal interest in the Safety and Health of themselves, their fellow workers, third parties and members of the public who may be affected by their activities, and be particularly careful to check the manner of working of any apprentice, or less experienced employee, who may be detailed to work with them or under their control
- c) Use common sense, avoid horseplay, improvising and taking unnecessary risk.
- d) Not abuse any plant, tools, equipment or welfare facilities provided by the Company for their benefit.
- e) Use protective clothing, headgear, goggles and the like whenever necessary, and maintain them in good working order.
- f) Implement any instructions issued for the safety of employees or third parties.
- g) Remember that all accidents and injuries can be prevented. Each employee has a responsibility to himself and others to work in a safe manner and not endanger the safety of others by his actions.
- h) The Duties of Employees is set out in Section 13 of the SHWW Act 2005

Disciplinary Procedures

Disciplinary action is invoked for a range of discrepancies from general misconduct to gross misconduct.

In general a **1st offence** warrants a verbal warning and probation. A **2nd offence** warrants a written formal warning and a **3rd offence** warrants removal from site, suspension or dismissal.

Certain offences may warrant dismissal in the gross misconduct range particularly for serious infringement of safety procedures / rules.

General Misconduct:

- Late for work
- Underperformance
- Unauthorised use of Company resources i.e. Vehicles, telephone, computers, plant, equipment etc. or time
- Rudeness to others
- Breaches of safety
- Improper use of mobile phones

Gross Misconduct:

- Violence and threatening behaviour
- Lewd Behaviour
- Sexual Harassment
- Alcohol or drug abuse
- Deliberate damage
- Serious infringement of employment conditions
- Serious infringement of Safety Rules
- Theft and/or fraud
- Wilful misrepresentation upon employment

SECTION11

TRANSPORT: DUTIES OF MANAGERS

This section covers all classes of vehicles used by employees of the Company be they private motor cars, large or small goods carrying vehicles, for lift trucks, mobile cranes and the like whether owned by the Company or hires by it. It shall be the responsibility of each individual line manager to ensure that:

- a) All transport under his/her control is safe for use and operation. Alternatively this duty may be delegated to a suitably qualified and competent person, but the responsibility ultimately rests with the Manager.
- b) No person who is not the holder of a current driving licence for the class of vehicle concerned shall be allowed to drive any vehicle for the Company.
- c) Drivers are responsible for checking that their vehicle is roadworthy before taking it out and that it displays a current Insurance and Tax Disc (and operator's licence where appropriate).
- d) Daily checks are made by drivers of (1) engine, oil and fuel levels, (2) radiator water level, (3) tyre pressure and tread depth, (4) correct functioning of all side, head, indicator, rear and brake lights, (5) horn, (6) windscreen washer and wipers, (7) rear view mirror, (8) the security of any load carried, and that any defects are reported immediately to the Manager concerned.
- e) Seat belts are worn at all times.
- f) All accidents are reported to the Company without delay, no matter how slight, and that when necessary are reported to the Garda Siochana as required by the Road Traffic Acts currently in force.
- g) Whenever a vehicle is left unattended it shall be properly parked and locked so as to prevent theft or danger to others.
- h) Special care is taken by drivers when reversing their vehicles, whether on or off sites, to ensure that no accident occurs to persons or property during such manoeuvres.
- i) No Smoking permitted in company vehicles

SECTION12

SPECIALIST EQUIPMENT

FORKLIFT TRUCKS, HOISTS, CRANES AND THE LIKE

It shall be the responsibility of each individual Line Manager and those in charge of sites where work is being carried out by the Company to ensure that no employee shall be detailed to operate fork lift trucks, cranes, or specialist equipment of any kind unless he has been properly and adequately trained for the particular item of plant or vehicle to be used, and plant complies with all relevant statutory requirements including Test Certificates and Inspections.

SECTION 13

SAFETY REPRESENTATIVES

The Company fully supports the principles set out in section 25 of the Safety, Health and Welfare at Work Act 2005 and will set up Safety Committees when requested to do so.

Membership

- When such a committee is formed either at Head Office or Site level, membership of the committee will comprise at least one person from each level of management, engineering and the various trades involved.

Chairman

- The committee will normally be chaired by a senior member of management or delegate who is in a position effectively to pursue any requests made as the result of committee discussions

Ex Officio Members

- Directors and Associate Directors shall be Ex Officio members of any Safety Committees which are established.

Safety Advisor

- The Safety Officer shall be a member of each committee and shall give such advice as may be required.

Co-opted Members

- At the discretion of the Chairman, the committee may co-opt such members as may be necessary to discuss any specific items on the agenda.

Terms of Office

- The elected members shall serve for a period of one year, but shall be available thereafter for re-election. The chairman shall continue as a permanent member of the committee.

Frequency of Meetings

- As determined by the chairman of the committee.

Minutes of Meeting

- Minutes of meetings shall be circulated to all Directors, the Executive responsible for safety matters, Line Managers and Members of the Committee.

If you are a trade union-appointed health and safety representative, your functions are set out in the [Safety Representatives and Safety Committees Regulations 1977](#)

If you are a representative of employee safety, your functions are set out in the [Health and Safety \(Consultation with Employees\) Regulations 1996](#)

SECTION14

DUTIES OF DOMESTIC SUB-CONTRACTORS / EXTERNAL SERVICES

The Safety Health & Welfare at Work Act 2005 and the Safety Health & Welfare at Work (Construction) Regulations:2013, imposes certain duties upon each employer as well as each person in control of premises in respect of visitors to those premises. These duties extend to persons not directly employed as well as those who carry out work on the Company premises or on contracts carried out by the company or under their direct control on site.

The Company requires a high standard of safe working from its employees enjoys a good reputation with its clients in this regard and requires an equally high standard from its domestic sub-contractors. The Company Safety Offices will be pleased to assist our Sub-Contractors in any practical way to facilitate safe and healthy working and request their co-operation in observing these rules.

1: Sub Contractors must abide fully with the safety rules of I.I.T. and comply with the Safety, Health & Welfare at Work Act 2005 and related Regulations.

2: Sub Contractors will be given a copy of this Safety Statement and must acknowledge that they have read and understood it and informed their employees of its contents. This should be done by returning a signed copy of the Acknowledgement Form at the back of the booklet. This should be done before the Sub Contractor commences work of any kind.

3: Sub Contractors must arrange their own Safety Statement and forward a copy of this to I.I.T... before work commences on all I.I.T... projects.

4: Sub Contractors must arrange their own insurance and insure that this insurance is sufficient to cover any liabilities that may occur whilst carrying out any work on behalf of I.I.T... Proof of this insurance should be furnished before work commences.

5: Sub Contractors must give consideration to Safety issues while previewing any work and must report back any hazards and resulting risk that they consider valid.

6: Sub Contractors must be aware of the company's Emergency Plan and Accident Reporting Procedure.

7. Sub- Contractors **must** provide a site specific special safety plan either on its own format or a format provided by I.I.T. or the project P.S.C.S.

8. Subcontractors must also ensure their operatives have received all statutory safety related training as far as is reasonably practicable to carry out their duties as employees.

STAFF RESPONSIBLE FOR SAFETY

- Site Staff responsible for Safety are documented in a site specific method statement or safety plan developed for each project.

GENERIC RISK ASSESSMENTS

- A schedule of Generic Risk Assessments has been developed for specific activities, the schedule and generic risk assessments are in Volume 3.
- The Generic Risk Assessments should be made site specific in the Health & Safety Plan

SECTION 15

FORMS

- Audit Sheets, First Aid Log, PPE Log, Tool Box Safety Meeting Report, S.O.R. (Safety Observation Reports), Dangerous Occurrence Reports, Preliminary Accident Reports, Induction Attendance Sheets, Generic Induction Sheets are contained in Volume 4. Health and Safety Rules for Domestic and Nominated Sub-Contractors, Relevant General Application (G.A.) forms

SECTION 16

SAFETY PLANS / SITE SPECIFIC SAFETY STATEMENTS

- When required, Safety Plans / Site Specific Safety Statements are developed for each project, incorporating the advice of the Project Supervisor (Design) and the Project Supervisor (Construction) as appropriate. Safety Plans are controlled (live) documents and subject to approval and revision.
- Where I.I.T... Full-fill the P.S.D.P. or P.S.C.S. role I.I.T... will provide the appropriate safety plan to the subcontractors involved.
- Subcontractors are expected to fill out their own safety plan for each project they undertake for I.I.T...

SECTION 17

ACCIDENT PROCEDURES

All accidents (however minor) must be reported to the SUPERVISOR & FOREMAN immediately, site must then report accident to the Director in charge and Company Safety Officer at Head Office without delay.

When a SERIOUS accident occurs, the following procedures must be followed:

- A) FOREMAN & SUPERVISORS must be notified immediately. Foreman or other nominated person to take charge of proceedings as follows:
- B) Observe accident location and status of injured person.
- C) If there is a risk of further injury, move the person with care to safety.
- D) Call for immediate medical assistance/emergency service.
- E) See that First Aid etc. is administered as required by a competent person, if available
- F) When the ambulance is called, make sure the exact location is given, and that the ambulance can access scene of the accident on site as near as possible to the injured person.
- G) Establish location of hospital, and appoint a suitable person to travel with the injured person.
- H) NOTIFY FAMILY of the injured person, and if required, ARRANGE TRANSPORT for them to the hospital.
- I) Notify the Director and the Company Safety Advisor.
- J) Gather all information immediately about the accident, and what led up to it. Use the accident form and complete all items as far as possible. Photography and dimensioned sketches must be completed for all incidents.
- K) If Health and Safety Authority are to inspect the location of the accident, do not move anything, unless further serious risks have to be avoided.
- L) Examination of what caused the accident, and precautions/actions to be taken to prevent a reoccurrence, in conjunction with the Safety Officer or his representatives.
- M) In the event that the Injured Party is a Sub-Contractor, notify their Employer and request they investigate and report on the incident. This is in addition to items A – L inclusive.

- N) In certain circumstances, where there is insufficient information or an unreasonable delay in anticipated in obtaining information's in relation to the incident, Preliminary Report Form may be used.
- O) RIDDOR - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
- P) As of **6 April 2012**, RIDDOR's over-three-day injury reporting requirement has changed. The trigger point has increased from over three days' to over seven days' incapacitation (not counting the day on which the accident happened).
- Q) Incapacitation means that the worker is absent or is unable to do work that they would reasonably be expected to do as part of their normal work.
- R) Employers and others with responsibilities under RIDDOR must still keep a record of all over-three day-injuries – if the employer has to keep an accident book, then this record will be enough.
- S) The deadline by which the over-seven-day injury must be reported has also increased to fifteen days from the day of the accident.
- T) A new leaflet [Reporting accidents and incidents at work](#) explains the change
- U) Contractors must ensure that their employees report all injuries, incidents and near misses no matter how minor immediately after they occur to the I.I.T. contract manager. All reports shall be investigated and recorded following notification.
- V) A Near Miss is defined as an incident which occurred without injury to personnel or damage to equipment Near miss reports shall be investigated, taking into account the potential for harm to personnel or damage to equipment.
- W) Contractors must comply fully with the Reporting of Accidents and Incidents as detailed in the I.I.T. Construction Safety and Health Plan.
- X) Details of all accidents/incidents must be given to The I.I.T. Manager. I.I.T.'s Supervisor, assisted by I.I.T. personnel shall conduct an investigation, complete the Incident Investigation Report Form and forward it to the I.I.T. Manager within 24 hours of the accident/incident.
- Y) Fatalities, major injuries, multiple injuries, potential lost time accidents or any incident which could have resulted in any of these injuries or in serious damage or loss to plant, equipment or structures must be reported immediately to the I.I.T. Manager. The scene of the incident must be left undisturbed until investigations by I.I.T. are complete.
- Z) It shall be the responsibility of I.I.T. to notify the Authorities of any Incident and or injury as required by Regulation. Copies of all such notification forms shall be given to I.I.T. Manager.

IRISH INDUSTRIAL TANKS LTD



PART 02:

Hazard Identification and Planning

CONTENTS

Part 2

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- Identification of Hazards, Assessment of the Risks and Arrangements to Protect Health and Safety
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 - Hazards in Site Office/General Offices/General Hazards/Arrangements to Guard Against Risks/Precautions
 - Office Rules
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 - Violence/ Bullying / Sexual Harassment
 - Emergency Plan
 - Reference Library
- Protective Clothing and Equipment
- Noise and Vibration

SAFETY & HAZARDS FROM FIRE

- Fire on construction sites is comparatively rare. However, fires do occur from exposure to risk, the risk includes arson, hot work activities, use of L.P.G. heaters, microwaves and electrical heating appliances and cookers electrical faults.

ARRANGEMENTS TO GUARD AGAINST THE RISKS:

- Site planning and safety rules take into account fire detection provisions, supply and maintenance of fire-fighting equipment, siting of skips control of hot work, emergency procedures in the event of fire, control of smoking on site, and prevention of the build -up of flammable materials such as in waste skips. Adequate means of escape and access for emergency vehicles will be allowed for during all stages of construction.
- The Company will designate trained Fire Fighting persons as appropriate for each contract.
- Account will be taken of the client, main contractors' or the P.S.C.S.'s Fire Safety Plans and all reasonable co-operations required from M.E. to ensure its effectiveness is implemented.

PRECAUTIONS

- Fire emergency exit routes will be established, adequately signed and kept free of obstruction, where security measures will be taken as practicable to restrict access to the site work areas, especially out of working hours. Smoking restrictions will be enforced, adequate notification to staff and subcontractor, where flammable materials are, or are likely to be, present.
- Hot work and use of naked flame appliances will be controlled as necessary, including the use of permit to work systems as necessary. Temporary electrical systems comply with legal standards. Changes in electrical systems made necessary precautions have been taken to accommodate changes, by way of design review where necessary and the provision of adequate fire arrangements. Temporary electrical systems will conform to legal standards.

LOCK OUT PROCEDURES:

- Danger tags are used only to prevent operation of a switch, valve or piece of equipment in cases where someone may get hurt or equipment may be damaged. This procedure will also apply to hydraulic and pneumatic equipment.

CORRECT PROCEDURE:

- a) Place your tag and lock personally, do not rely on someone else to do it.
- b) Sign and date
- c) Have an electrician or plant operator lock and tag all electrical switches first.
- d) Use only the standard danger tag.
- e) Destroy your tag when you remove it and use a new one when needed.
- f) All tags placed by electricians must be accompanied by their lock.
- g) Try switch and any local start buttons after locking and tagging and before starting work to make sure you have the correct one.

REMEMBER – LOCK, TAG AND TRY

INCORRECT PROCEDURES:

- a) Remove some else's tag or operate valve switch or device which has another man's danger tag attached. Operatives will be dismissed for such actions.
- b) Lock and tag a devise unless specifically instructed to do so.
- c) Place lock-out tags on defective tools or equipment, site boxes, or similar places.

IDENTIFICATION OF HAZARDS, ASSESSMENT OF RISKS AND ARRANGEMENTS TO PROTECT HEALTH AND SAFETY

Identification of Hazards

- A hazard may be defined as anything that can potentially cause harm. Hazards in the construction industry can be divided into two main categories, “health hazards” and “physical hazards”. Health hazards generally are those with the potential to cause internal damage and have been covered on previous pages. “Physical” hazards involve potential harm to body structure, which must be eliminated where practicable and body protection used to avoid or minimise risk.
- To safeguard the health and safety of all employees each work place is systematically examined to identify hazards and adequate arrangements made to eliminate or minimise risk. Where necessary safety plans are developed including project specific risks assessments and methods of control.
- All hazards, reasonably foreseeable are identified, eliminated where practicable and adequate arrangements formulated to safeguard against them before any operations commence.
- The assessment of risk, that is, the likelihood of an occurrence and the consequences, numbers that would be affected, seriousness of injuries, due to the constantly changing working environment. “Best Practice” therefore is adopted for all operations by I.I.T... regardless of duration.
- Best practice is the removal of risk where practicable or use of all reasonable precautions thereafter. The following are the minimum requirements accepted by I.I.T... for its direct employees and sub-contractors on all site.

HAZARDS FROM ALCOHOL AND DRUG ABUSE

GENERAL HAZARDS:

- The use of alcohol and drugs impairs motivation, memory, health, personality, attitude and the perception of risk.

RISK INVOLVED

- Damage to equipment, plant, environment, injury or death to personnel.

GENERAL PRECAUTIONS AND COMPANY POLICY

- The use of alcoholic beverages, or marijuana by employees whilst on duty or on employer premises are prohibited. The illegal use of any drug, narcotic or controlled substance is prohibited. Employees must not report for duty or be on employer premises under the influence of, or have in their possession, any alcoholic beverage, marijuana or illegally obtained drug, narcotic or other illegal substances. Employees on prescribed medication must notify their local manager if there is any significant risk associated with its use.

HAZARDS FROM EXCAVATIONS

GENERAL HAZARDS

All work below ground level is dangerous. Excavation work usually indicates the commencement of work but sadly it can equally become the termination of life for an employee. Any one or a combination of the following can cause accidents.

- a) Excavator or person makes contact with underground services.

- b) Lack of care in unstable soil.
- c) Inadequate protection.
- d) Poorly secured protection and insufficient inspections.
- e) Inexperience or supervisors and workforce.

RISK INVOLVED

When persons may be required to work in an excavation, the risks of collapse and crushing are provided for. The causes of soil collapse are:

- a) Mechanical failure of soil unable to hold its own weight.
- b) Mechanical failure caused by change in soil consistency, brought on by rain or frost.
- c) Mechanical failure due to proximity of a previous soil movement or excavation.
- d) Soil movement caused by variations in structure, e.g. sand pockets etc.
- e) Soil movement caused by vibrations of moving vehicles or plant.
- f) Overloading at the edge of the trench, impact of the soil, or its support by moving equipment or materials.

PRECAUTIONS BEFORE WORK BEGINS

- 1. Find, locate and mark all underground services.
- 2. Liaise with Safety Officer, and appoint a competent person to supervise work.
- 3. Organise suitable plant, equipment and required working space.
- 4. Organise delivery and inspection of support materials and ladders.
- 5. Provide appropriate protective clothing and equipment.
- 6. Provide suitable barriers.
- 7. Scan for existing services.
- 8. Segregate the area to protect others from potential hazards

PRECAUTIONS WHILE WORK IS IN PROGRESS

- 1. Liaise with Safety Officer and competent person regarding inspections and suitable record-keeping.
- 2. Organise a balanced workforce, avoid overcrowding in a trench.
- 3. Arrange adequate fencing, lights and warnings around the excavations.
- 4. Arrange safety stops for all site transport near trench areas or excavations.
- 5. Check regularly for "unseen hazards", e.g. noxious gases and fumes. Install an evacuation procedure.
- 6. Plan and prepare for safe backfilling activities.
- 7. Maintain tidy work areas at all times.

INSIST ON APPROPRIATE PRECAUTION TO PREVENT COLLAPSE

- 1. Battered or slopped sides at an angle greater than or equal to the angle of repose of the material. For deeper excavations the sides have to be benched.
- 2. Sheet piling, walling and strutting with traditional materials.
- 3. Sheet piling, walling and strutting with hydraulic struts.
- 4. Proprietary support systems, e.g. hydraulic frames, boxes etc.

GENERAL GUIDELINES

Ensure that:

- 1. All excavations and trenches, and work done in them conform to established standards and comply with regulations.
- 2. All excavations are sloped to the angle of repose of the material.
- 3. Materials are placed 1 metre or more from the edge of the excavation. Precautions are taken to prevent such materials from falling into the excavation.

4. Excavations 1.25 metres or deeper are shored or sloped back to the angle of repose. Any excavation in unsuitable soil is shored or sloped back.
5. Each excavation is inspected daily by the appointed competent person. If any hazard exists, all work ceases in the excavation, until precautions are taken to safeguard employees.
6. Where vehicles or equipment operate near excavations, the sides are shored or braced to withstand the forces exerted by any superimposed load. Also stop blocks or other substantial barricades are installed at the edges of such excavations.
7. Material used for sheeting, shoring or bracing are in good condition. Timbers are sound, free of large or loose knots, and of adequate dimensions.
8. Safe access and egress is provided for all excavations by means of ladders, stairs or ramps.
9. Excavations 1.2m or more in depth have ladders spaced so that employees' lateral travel does not exceed 10m. Such ladders extend at least 1m above grade level.
10. Walkways or bridges with standard handrails are provided where employees or equipment are required or permitted to cross over excavations.
11. In locations where oxygen deficiencies or concentrations of hazardous or explosive gases or dust are possible, the atmosphere in the excavation is tested prior to start of work and at intervals, as required.
12. Safe systems or work are devised for all stages of excavations and adequate supervision maintained.

HAZARDS FROM ELECTRICITY

GENERAL HAZARD

Electricity is safe and efficient form of energy, but if electricity is misused it poses one of the greatest hazards in the workplace. Some knowledge of electricity for all personnel is essential because the injuries are usually more severe than those resulting from other hazards and also because misuse of electricity or poor maintenance is responsible for a large proportion of fire.

RISK OF ELECTRIC SHOCK

If a person is in contact with earthed metal work or is inadequately insulated from earth then, because the human body and the earth itself are good conductors of electricity, they form a circuit through which electricity, under faulty conditions, can flow.

As electric shock affects the nervous system can cause muscular contraction, including the inability to let go, thus increasing the risk of serious consequences. An electric arc dissipates considerable energy in the form of intense heat which can cause extensive and deep seated burns, possibly contaminated with vaporised metal. High frequency currents can cause internal burns if allowed to pass through the body, although little sensation of shock is experienced.

If the current passes through the heart it upsets its pumping action, and in this case death is almost certain. A shock which in itself might not be serious may cause a reaction which results in loss of balance and a subsequent fall which could have serious results. Generally the injury caused will depend on the part of the body affected, the health and sensitivity of the individual, and the value of the current.

- a) 0-10 amps through the heart can be fatal, currents as low as 0.01 amps maintained over a period can have the same effect.
- b) 0.01-0.015 amps causes' muscular spasm which included inability to let go, thus the shock is prolonged and will convert a minor shock into a major fatal one.
- c) 0.002/0/005 amps are a threshold of feeling.
- d) 0.002 amps is the maximum safe current that may accidentally momentarily pass through the body.

The amount of current passing through the body depends on the voltage applied to the body and on its resistance. The body's resistance varies with the state of health, moisture on the skin, wet ground conditions and other factors, and may be as low as 1500 ohms hand to foot.

RISK FROM METALCLAD FIXED AND PORTABLE HAND HELD APPARATUS

The risk from shock from fixed apparatus is low provided the maintenance and regular checks are carried out.

However, the use of portable hand-held appliances supplied by means of a flexible cable, plug and socket, can increase the risk because they are subject to much greater wear and tear. Wear is concentrated at points where these flexible cables enter appliances and plugs and the flexible cables can be damaged by works transport or while lying on the ground.

The effects of this wear or damage could be to cause an overload fault or an earth fault, which will result in the conductors being made dead and safe. If, however, at the same time damage has caused a concealed open circuit in the earth conductor the situation becomes dangerous. In the event of an earth fault, no current can flow in the fault circuit because it is broken, therefore, the fuse or MCB will not operate. The case of the appliance will remain charged with a 110 volt transformer feeding it.

PRECAUTIONS

Plant & Equipment Register

Plant & Equipment registers will be maintained for all hand held and portable electrical equipment. The registers will note the last inspection and/or test and the next planned inspection / test. All equipment must be tested by a competent person.

110 volt Electrical Systems

110 Volt systems are always used with tools, temporary lighting and other equipment, with the following exceptions.

- (a) In the case of an appliance comprising a motor which is rated at or exceeds 2 horse power, or
- (b) In the case of those appliances whose rated input is at or exceeds 2 kilovolts amperes.

These 110v systems use transformers at the mains supply to step down the voltage, are much safer and the risks of serious electric shock are low. All component parts of the system, plugs, etc. are colour coded yellow for easy identification. The centre point of the lower voltage winding of the transformer is trapped and brought out for a permanent connection to earth.

Double Insulated and all Insulated Tools

These are safer than ordinary tools because they incorporate layers of protective insulation or its equivalent to prevent any external metal parts from becoming "live" and causing electric shock during normal dry operating conditions

Cables

The type of cable in use must be suitable for the purpose of which it is used. All damaged cables are replaced. If a cable repair is attempted, special connectors are used, as taped joints are not satisfactory to maintain the physical properties of the cables. Cable drums are fully unwound to prevent overheating and subsequent damage.

GENERAL PRECAUTIONS

- (a) Be aware of all buried services and cables and trace the position of the cables as accurately as possible with cables plans and cables location devices.
- (b) Display abstracts from the regulations and resuscitation instructions, and ensure all regulations are complied with.
- (c) Render all overhead cables harmless where possible or provide warning devices. Avoid flashover by ensuring that no part of any machine, ladder etc. goes within 10m of a power line, unless authorised.
- (d) Plan ahead and ensure that all electrical supplies are properly installed and maintained by a competent electrician.
- (e) Use 110 volt electrical systems with double insulation and all insulated tools.
- (f) Residual current devices are provided where equipment is used at mains voltage and screened cables are also used. The devices operate within 30 milli-secs if the earth leakage exceeds 30ma.
- (g) Ensure the plugs, sockets and all such fittings are of a high standard and sufficiently robust for their proposed use.
- (h) Ensure that fuses, circuit breakers, and other devices are correctly rated for the circuit they protect.
- (i) Prevent the access to electrical dangers, keep distribution boards covered and closed, and if possible locked, with the key held by a responsible person. Implement lock out procedures.
- (j) Ensure that main switches are readily accessible and clearly identified, and that everyone knows how to use them in an emergency.
- (k) All portable apparatus are listed so that it can be regularly inspected and its condition recorded.
- (l) Suspect or faulty apparatus are taken out of use, put in a safe place and labelled "do not use" until attended to by a competent person.
- (m) Tools and power sockets are switched off before plugging in.
- (n) Appliances are unplugged before cleaning or making any adjustments.

HAZARDS IN CONNECTION WITH MANUAL HANDLING OF MATERIALS

GENERAL HAZARDS

- Approximately 25% of accidents in the construction industry are caused by incorrect manual handling procedures. Injuries include strained backs, slipped discs, sprains, internal injuries, e.g. hernias, etc. generally injuries are caused by attempting to lift loads which are too heavy for the individual.

Risks from Improper Lifting Methods

(a) Primitive Method:

- This method leads to strained backs, slipped discs, industrial deformities, groin hernias, and possible fractures caused by dropping articles. This method uses the back to lift, with great strain placed on the lower back region and also leads to poor balance. This method where the back is used in a curved position is unsatisfactory and must not be used.

(b) Mechanical Method

- This method is employed by weightlifters but only allows the user to lift a weight and replace it in the same position as the feed are side by side. Use of this method to transfer weights from one position to another puts excessive pressure on feed and legs and leads to arthritis of the knees and feet

Kinetic Method

- This method reduces the amount of muscular effort required to move objects by making maximum use of the body weight. This is the correct method of lifting and transferring weights and is based on simple

rules which will eliminate the risk of back injury or strain. Always follow these rules when lifting regardless of whether the object is heavy or light, as trained by competent instructors.

Rules for Safe Lifting

- (1) Get as close as possible to the load, this brings the lines of gravity of both the load and body as close together as possible.
- (2) Position you're feet approximately the width of your hips apart with one foot slightly in front of the other. This provides good balance during the lift.
- (3) Relax your knees, lower your hands and drop down beside the load, inclining your head.
- (4) Grasp the objects with a firm grip, test the weight making sure it is not excessive and keep the arms as close as possible to the body.
- (5) Raise your head and look straight forward, this locks the cervical vertebrae and helps to keep the spine straight.
- (6) Keep the load as close as possible to the body with the elbows in and lift with strong leg muscles in a controlled smooth movement, keeping the spine straight.
- (7) Move forward at a comfortable pace and never rush.

Other points which must be completed with to prevent the possibility of back injury.

- (a) Prioritise mechanical lifting equipment where possible.
- (b) Before attempting to lift any load by any means, know where you are going to set it down, and ensure that the route is clear of obstruction.
- (c) When you grasp the load, test its weight to ensure it is within your capabilities. Many accidents occur when a person raises an object a few inches, realise it is too heavy, and lets go. This spinal recoil can cause severe injury.
- (d) When lifting always ensures that the heavy side is close to the body.
- (e) If the load is too heavy, then assistance of one or more people will be needed, but ensure smooth movement with instructions from one designated person.

Pulling and Pushing

Again keep your back straight, although not necessarily vertical, bend at the hips and knees using your leg rather than arm or back muscles to move the object.

Reaching

Never over-reach, this may strain your back. If you reach over-head keep your knees slightly bent to absorb any sudden loading. If this is not possible, use a stool or steps. Always reduce the weight to be lifted if lifting over waist level.

Handling Cylinders

Some difficulty is encountered in handling of cylinders, especially if they are the round bottom type. The running away action can be avoided if the lifter adopts the correct foot position, with shoulders over the valve, so that when he lifts, the action draws the cylinder towards him. As he lifts, he walks forward with it transferring one hand from under the valve to behind it.

Loading on to a High Platform

A swinging motion is necessary for lifting weights onto a platform above waist level. Here the foot positions are altered, one foot placed in line with the object with the other away from the objects and platform.

Where more than one person is involved in the lift decide which man is to take the command. Again using the rules of the safe lifting, allowing just enough room for the object to pass, swing the object away from the platform. The arms should reach a fully extended position before the return swing of the pendulum motion. As the weight passes the mid-line of the handlers on this return swing, the foot furthest away follows through, ready to assist the upward and resting action.

Stacking

- a) Check objects which may roll such as drums, pipes, and keep heavy articles near floor level.
- b) Organise work to minimise the amount of lifting necessary, using mechanical means where possible.
- c) Inspect pallets, platforms, containers, and racks regularly for damage and prevent damage from mechanical lifting equipment, e.g. forklifts.
- d) Stack palletised goods vertically on a level floor so they will not overbalance.
- e) "Key" stacked materials of uniform size like a brick wall pattern, so that no tier is independent of another.
- f) Use properly constructed racks where possible to secure it to a wall or floor where practicable.
- g) Ensure items do not protrude from stacks or bins into gangways and passageways.
- h) Do not climb racks to reach upper shelves, use a ladder or steps.
- i) Never leave heavy stack materials by throwing down from the top or pulling out from the bottom.
- j) Never do-stack materials by throwing down from the top or pulling out from the bottom.

GENERAL HAZARDS FOR WORKING AT HEIGHTS

Many activities in the workplace are done using ladders, trestles and different types of scaffolds. These are the major cause of serious accidents, many of which are fatal. The SHWW (Construction) regulations 2013 and the SHWW (Gen App) regulations 2007 concerning the access ladders, walkways, platforms, bracing, handrails, end rails, toe boards, etc. are complied with.

UK Regulations to be incorporated are

- [Work at height, Access equipment, Information, Tool \(WAIT\) e-Learning tool](#)
- [Falls from height](#)
- [Shattered Lives campaign](#)
- [Operator Code of Practice - Prefabricated Access Suppliers' and Manufacturers Association \(PASMA\)](#) 
- [The Work at Height Regulations 2005](#) 
- [Construction \(Design and Management\) Regulations 2007](#) 

Risk Involved

- (1) Scaffolding may collapse and cause serious injury to persons and damage property.
- (2) Ladders may slip or fall causing serious injury to persons falling from them or being struck.
- (3) Person or persons may fall from various working platforms at various heights, causing serious injury to themselves or others.
- (4) Materials or equipment may fall and inflict serious injury to persons below.

Ladders: Hazards

Many people are injured while using ladders at their workplace. More than half of the accidents involving ladders occur because ladders are not securely placed and tied, and of those many happen when the work is of short duration. Other causes include climbing ladders while carrying loads, overreaching and overbalancing. Ladders are being used when other equipment would be safer.

Precautions

Ensure that:

- (1) Ladders are secured from slipping preferably by tying them securely from the top. Alternatively secure at the sides or with stop blocks at the foot.

NOTE:

A second person standing at the foot to prevent slipping is effective only with ladders less than 5m long. Only one person is allowed on a ladder at any one time.

- (2) Ladders are inspected before use and faulty ladders are never used. Damaged ladders are Tagged "Do not use".
- (3) Ladders extend at least 1m above the landing place or the highest rung in use, unless there is a suitable handhold to provide equivalent support.
- (4) Methods exist to carry tools and materials up and down so that both hands are free to grip the ladder.
- (5) Ladder stays or similar devices are used to avoid placing ladders against a fragile surface.
- (6) Ladders are never placed where there is danger from moving vehicles, overhead cranes or electricity lines.
- (7) Ladders have level and firm footings, other items are never used to provide greater height such as blocks, drums etc. NOTE: Do not support ladders on their rungs.
- (8) Extended ladders have an overlap of at least three rungs.
- (9) Ladders are set at the most stable angle, a slope of four units up to each one out from the base, 75 degrees.
- (10) Only industrial, heavy-duty grade ladders are used.
- (11) Short ladders are never spliced together to make a longer ladder or placed against movable objects.
- (12) The area around the top and base of ladders is free of tripping hazards such as loose materials, rubbish and electric cables.
- (13) Ladders which project into passageways or doorways, where they could be struck by personnel, moving equipment or materials being handled, must be protected by barriers.
- (14) Users face the ladder at all times when ascending or descending, and be sure footwear is free of mud, grease or other substances which could cause a slip or fall.
- (15) Ladders are moved to avoid overreaching.
- (16) Stepladders are fully opened to permit the spreader to lock and the top two steps are never used.

Maintenance and Storage of Ladders

It is an important safety factor that equipment is retained in good condition for as long as possible and remains safe. To achieve this, the following points are necessary.

- 1) All timber ladders in use are free of splints, cracks and similar weakening defects. No filler is used to mask defects, and on no account is timber ladders painted.
- 2) All ladders are kept clean of dirt and mud. Extra care is necessary to avoid slipping e.g. oil or grease on aluminium ladders.
- 3) All ladders are stored flat to avoid twisting or warping.
- 4) At the end of the working day, secure a flat board against the lower rungs of the ladder and tie it as high as possible or remove them to a storage area, if there is a risk of young children climbing them after working hours.
- 5) Supervisors arrange and implement a check procedure and regular inspection of all ladders and steps.
- 6) If a ladder is defective, it is destroyed or repaired immediately before someone can use it by mistake.

NOTE: Similar rules are followed with stepladders and trestles where they can be applied.

Precautions with Scaffolding:

Ensure that competent person is made responsible for ensuring:

- (a) Its safe erection and scope of use.
- (b) Display of notices concerning its unfinished or unsafe condition.
- (c) Require entries are made in the scaffolding register. General Applications 07 (G.A.3. form).
- (d) Its safe dismantling and storage.

The use to which a scaffold is put will determine how substantial it needs to be. Scaffolds are only designed, erected, altered or dismantled under the direction of a competent person and by competent and experienced workers.

Stability

The stability of a scaffold is affected by how it is used; therefore the right type of scaffold is erected for the intended work. Adequate stability is provided with at least one tie for every 32msq of scaffolding. More ties are provided if the scaffold is sheeted or if equipment such as hoists or rubbish chutes is attached.

The uprights always rest on steel base plates, bricks and other loose materials are not accepted for bases. If the ground is soft, it is well levelled and compacted and timber sole plates, 9" wide and 1.5" thick are used to spread the load,

The scaffold itself is adequately braced to prevent collapse and provide a firm working platform.

Guard Rails and Toe Boards

There is no such thing as a temporary scaffold. All scaffolding is erected and maintained to conform to established standards.

Scaffold platforms of all types from which a person is liable to fall, must have guard rails and toe boards. Brick guards or other suitable vertical protection should be provided where materials may fall from the scaffold.

Scaffold fans, netting or sheeting is more effective in certain circumstances and is decided on after liaison with the safety officer.

Overloading

Care is taken never to overload a scaffold and loading is supervised by a competent person. Consideration is also given to any risks it may pose to the general public.

Width of the Working Platform

Platforms are prepared with boards of sound construction, free of defects, decay or damage. Knots should not be more than 57mm across and knots at edges should not exceed into the face of the board more than 38mm.

The working platforms are of sufficient width to accommodate the worker, his tools and materials and provide a clear passageway without any danger of a fall. All boards of the platform rest evenly on transoms at 1.2m intervals, each board with at least three supports. Boards are butted and double transoms used where this occurs.

No board overhangs more than four times its thickness and less than 50mm. Boards lie close together along their full length and are even to prevent workers tripping. When work has to be done at the end of a wall or working face, the working platform is extended at least 60mm beyond the end of the wall or face.

Mobile Scaffolds

This scaffold has a working platform, the dimensions of which do not exceed those of the base. The corner standards are not less than 1.2m apart. Ledgers and transoms at right angles to the standards commence about 150mm from the bottom, to provide a firm base and clear wheels. They are fixed with right angle couplers. Lifts do not exceed 2.7m or the dimensions of the shortest side whichever is the smaller.

Diagonal bracing is provided horizontally and in each vertical plane of the framework. The scaffold is not only used on firm level floors and the ground free of obstruction. After movement care is taken that the wheels are securely locked before the scaffold is used.

The width of the base determines the height of the working platform and do not exceed three times the smallest width at the base. Mobile scaffolds do not exceed 12m in height and if over 9.5m they are tied to the building when in use. When any mobile scaffold is used outside in windy weather, it is always securely anchored either by tying it to the building or otherwise. The same rules apply to tower scaffolds and adequate ladders are provided for safe access.

All scaffolds are to have scaff-tag to indicate whether they are safe to use or not.

Suspended Scaffolds

These are used for specialist work on high structure where it is not possible or economic to build scaffold from the ground. They are suspended from outriggers which are sufficiently long and strong, and firmly held down at a minimum of two points at the inner end.

R.S.J.s and similar girders are suitable as outriggers, one for each suspension point. They are firmly anchored and properly supported, spaced closely together and as close to horizontal as possible. Wire ropes are used for suspension purposes and they are fitted with safety hooks or armoured eyes for fixing to platform units and outriggers with shackles or safety hooks.

Again the working platform has toe boards 150mm high and guard rails 850mm above the top of the toe board all around. The scaffold is tied to the building to prevent it from swinging away. This is done from the platform itself by lashing it to the building, or from a point not more than 3.0 above the platform on each alternative suspension wire, or by fixing the end of the suspension rope below the platform to the building. In all cases the tie is made to the building proper and not to any appendage such as drains, pipes or guttering.

When raising and lowering the scaffold the working platform remains horizontal and at right angles to the building. The scaffold is tested in its lowest position with a dead load equal to double the maximum load it has to carry when in use.

Falls of Materials

Materials are stacked so that they cannot be knocked or blown over the side of a working platform. If materials are heavy, the surface on which they are to stand is checked to insure that it is strong enough to take the load.

Protective covers are provided where there is a possibility of materials falling on workers. No person is required to work where he is liable to be struck by falling objects. Nothing is thrown, tipped or shot down from a scaffold unless there are adequate arrangements to protect people working underneath, e.g. fence off the vicinity or a worker stationed to keep the area clear.

When materials are lowered it is done by a lifting apparatus or a chute. In dismantling a scaffold all poles, planks, chains, ropes or other similar articles are properly lowered or carried down.

Inspections

It is important that scaffolds be regularly inspected by persons competent to do so, such as the person appointed under statutory regulations. Effective training of scaffolders is an important factor in preventing accidents among both scaffolders themselves and those who use scaffolds and will be provided.

Scaffolds are kept under constant inspection during spells of bad weather as unfavourable weather conditions may affect their stability. The results of each inspection is recorded, making a note of the particular faults discovered and how they were rectified (GA 3).

Roof work

Almost one in five deaths in construction occur in roof work and nearly all could be prevented by the provision and proper use of readily available equipment.

Where works is to be carried out on a pitched roof, special provisions are made to reduce the risk of falling, e.g. use of roofing ladders and crawling boards. Also, at the edge of a pitched roof arrangements are made to prevent a fall directly to the ground. The usual procedure is to use directly, or adapt, the top platforms of the general scaffolds.

Fragile Roofs

On roofs covered by fragile materials, roof ladders or crawling boards are used, as an absolute minimum two ladders or two boards are used if employees are required to do any movement on fragile roofs. NOTE: Never step onto asbestos or non-asbestos cement or plastic sheeting, or fragile roofing. It is liable to shatter without warning under a person's weight.

Where a valley or parapet gutter is used as a means of access and the adjacent roof is covered by fragile materials, suitable cover, extending a minimum of 1m up to the roof, or other means, are provided, to prevent a fall through the fragile material.

Sloping Roofs

The degree of danger will depend on the pitch of the roof, the nature of the surface and the weather conditions. Smooth surfaces made slippery by moisture, ice, snow, or vegetable growth can be particularly dangerous. Barriers to prevent falls from pitched roofs are provided, high enough and strong enough to stop a person who may roll or slide down the roof slope. On sloping roofs suitable purpose made roof ladders or crawling boards are provide.

Flat/Virtually Flat Roofs

Barriers are provided sufficiently strong to prevent workers from falling from the edge or through an opening or through fragile roof light. Where openings are covered over they are substantial are secured in position and marked to show its purpose.

General Precautions

Ensure that:

- a) Everyone is aware of the precautions to be followed when working at heights, as well as the detailed training of their own job.
- b) Prominent permanent warning notices are placed at the approach to any hazards of falling e.g. fragile roofs.
- c) Personnel never walk on fragile roofing materials such as asbestos cement or glass and take precautions as they may be painted over.
- d) Personnel on fragile roofs never walk along the valley gutters, roof ridges or purloins, unless there is something to prevent a fall through the roof.

- e) Personnel on fragile or pitched roofs use suitable crawling boards, NOTE: Never use less than two boards if you have to move along the roof and cover skylights on otherwise solid roofs.
- f) Even on a flat roof the edges are protected by a parapet and/or guard-rails and that the roof is strong enough to support personnel.
- g) Where someone could fall over the edge, temporary guard-rails and toe boards are installed or anchorage points for safety belts are provided. Ensure safety belts are worn.
- h) Items are prevented from falling onto people below. Use barriers, warning notice or a "look out".
- i) Unless absolutely necessary personnel do not go onto roofs in bad weather e.g. high winds, especially if carrying sheet material, or where there may be other hazards e.g. fumes from flue outlets.

Precautions for other work above the ground

Ensure that:

- (a) Personnel never use a fork-lift truck or bucket of any machine as a working platform unless it is fitted with a proper cage secured to prevent falls. In such circumstances the platform is controlled from within the cage.
- (b) All edges of platforms which are above the ground, have handrails and toe boards and similarly for pits and vats.
- (c) All floor openings are covered or have a fence around them.
- (d) Staircases are provided with substantial handrails if there are more than three rises on a flight.

Precautions with Scissors Lifts

- (a) Ensure personnel expected to operate the machine are trained in its operation.
- (b) Ensure that all standing instructions pertaining to internal transport are strictly adhered to.
- (c) Before using the working platform the safety rails is secured and always mount the machine using steps and hand holds.
- (d) Never overload the basket or platform.
- (e) Ensure that doors on basket are securely locked before raising the basket.
- (f) Check that all emergency stop levers are effective.
- (g) Familiarise yourself with all lever movements before raising and check all operations.
- (h) Check Test Certificate is current.

Operating Instructions

- (a) All operators to read operating manual before use.
- (b) Never over-reach from the basket or out over the platform, or stand outside the safety rail.
- (c) Do not move the machine with the basket in the raised position except when carrying out work e.g. inching along pipe-work.
- (d) Be aware of obstacles protruding from roof or sides.
- (e) Keep platform tidy and free from tripping hazards and always clear basket completely when the job is complete.
- (f) Safety harness must be worn in MEWP at all times.

General Hazards – Site Driving & Vehicles

The possible sources of hazards are poor standards of site driving, lack of ability of drivers and ardent, sometimes ruthless abuse of equipment. These cause much concern and create serious risks to workers and property. Machinery is extensively used and accidents from its use are guarded against.

Arrangements for Guarding Against the Risks

The drivers of all mechanically propelled vehicles have the appropriate driving licence and are trained in the safe operation of the particular vehicle which they operate. Risks exist which are not present when driving on public roads. If vehicles have to be driven on steep gradients or across slopes, drivers know the gradients on which their vehicles can be operated without danger of overturning.

When manoeuvring vehicles the driver always has an unlimited view of the position into which he wishes to manoeuvre. If his view is limited then he is guided by a signaller.

When a vehicle is tipping materials into an excavation care is exercised to ensure that it is not driven over the edge and that the ground is strong enough to support the vehicle. If there is any danger of this a specially made up stop block is used.

When the body of a tipping lorry is raised the body is propped so that it cannot drop on any persons.

Notices pointing out these dangers and restricted areas of all machines are provided to warn of such dangers.

Drivers of tipping Lorries and mobile cranes are instructed to keep at least 10m from all overhead power lines. Particular attention is given to the proper maintenance of such vehicles.

General Precautions

- (a) All drivers are eighteen years or over and hold driving licences and certificates of competency indicating what they are passed to drive.
- (b) Adequate initial and refresher training is provided for all drivers.
- (c) A list of all drivers and their record of competency is kept.
- (d) Passengers are not carried on mobile plant unless there is a seat provided for that purpose.
- (e) Drivers carry out adequate start up, setting off and end of day safety checks and report any defects found immediately.
- (f) All hazards that may endanger site transport are marked and a clear margin allowed for unstable ground.
- (g) Where regular routes are used on sites, these are clearly marked and kept free of obstruction.
- (h) All drivers are compelled to keep within the confines of these boundary marks.
- (i) Where the drivers or operators view is restricted an attendant guides the machine.
- (j) Operative's work places are planned to avoid the risk of collision with adequate warning notices for workers and the general public.
- (k) Men working on the site are instructed to keep clear whilst machines are moving, and wear effective waistcoats especially where the drivers view is restricted.
- (l) Where transport is required to pass between fixed structures, temporary barriers are erected which act as guides to show the width through which the vehicle can safely pass.
- (m) To avoid collisions with the damage to stacked materials, all storage areas are placed clear of site roadways.
- (n) Where temporary supplies of electricity, water or compressed air pass across the site roadways, they are protected with suitable ramps or lifted and placed clear of traffic.
- (o) Temporary services above ground, e.g. telephone and electricity are clearly marked, to highlight their location and minimum headroom

Miscellaneous Hazards

- (a) The prohibition of naked flame applies to all fuel storage areas and to all those who fill transport vehicles or come within the fuel store area.

- (b) Where site transport is used on the public highway a current tax disc is displayed. In addition all requirements of the road traffic act and licences for drivers are complied with.
- (c) All hydraulic or similar powered equipment is lowered to ground level when not use is and engines are turned off and keys removed when left unattended.
- (d) The user of hired equipment is responsible for its safe working and the subsequent mechanical condition of the machine on a daily basis.
- (e) A contractual agreement is made, to retain all necessary safe working, through adequate maintenance of such equipment.

HAZARDS FROM MECHANICAL LIFTING

General Hazards

Mechanical lifting devices include cranes, winches, slings, pulley blocks, gin wheels, tank jacks, lifts and forklift trucks. All pose major hazards if not controlled. Typical accidents which may occur include.

- (a) Worker underneath being struck by the hook of the machine when it is being lowered.
- (b) Worker may be struck by the hook through premature lifting of the crane.
- (c) Lifting tackle may break allowing a heavy load to be dropped onto workers underneath.
- (d) Equipment may develop a fault, with similar consequences.
- (e) Improperly slung loads may slip or swing causing serious injury.

Arrangement to Guard against the Risks

The complex legislation, applicable to lifting appliances of the Construction Regulations of 2013 and the General Application Regulations of 2007 is complied with. Lifting machines are constructed, installed, protected, worked and maintained so as to prevent danger.

They are examined and tested by competent persons and have a test certificate which is renewed after any substantial alterations or repair. Every such machine has a permanent mark of identification and the safe working load under the conditions in which it can be used is shown on the certificate and marked on the machine.

It is inspected at least once a week (GA2 Form) by a competent person and operated by a trained worker. Dangerous moving parts are guarded and control levers and handles are lockable to prevent displacement of falling of the load. If a crane should run on rails, the rails are laid on firm foundations with stops provided at each end to eliminate overrun. The operator of any lifting machine has an unrestricted view of the movements of the crane and its load.

Men are never positioned where they can be struck by loads or slings. A proper signalling system between the driver and an unrestricted view.

Forklift trucks, dumpers, teleporters, etc. are used widely for the transport of materials. Drivers of such equipment are appointed only after considerable training and test or/and the supervisor is completely satisfied that the operator is competent.

General Precautions

- (a) Keep the test certificates for all lifting machinery and tackle showing its safe working load, and the annual or six-monthly examinations reports.
- (b) Only use certified lifting equipment, marked with its S.W.L. (safe working load) which is not overdue for examination.
- (c) Never exceed the S.W.L. of machines or tackle. Remember the load in the legs of a sling increases as the angle between the legs increases.
- (d) Never lift a load if in doubt of its weight or the adequacy of the equipment.

- (e) Before lifting an unbalanced load find out its centre of gravity, raise it slightly off the ground and pause, there will be little harm if it drops.
- (f) Never use makeshift, damaged or badly worn equipment, chains shortened with knots, linked or twisted wire ropes, frayed or rotted fibre ropes.
- (g) A wire must not be used if more than five percent (one in twenty) of the wires can be seen to be broken in any ten diameter lengths.
- (h) All loads irrespective of their shape or size are slung so that their centre of gravity falls immediately below the crane hook.
- (i) Provide suitable packing to protect slings from damage by sharp edges of loads and do not allow tackle to be damaged by being dropped or dragged from under a load.
- (j) Take care to avoid snatch or sudden loading, particularly in very cold weather.
- (k) Cranes must have the correct counterweight, load radius indicator and/or automatic safe load indicator.
- (l) Have a fully competent slingers or banks man and use a recognised signalling system.
- (m) Ensure that people or loads cannot fall from a high level when using lifting machines like lifts, hoists, and crane.
- (n) Never allow anyone to be carried with a load.
- (o) C.S.C.S. to operate crane.

UK Legislation regarding Lifting Operations

LIFTING OPERATIONS AND LIFTING EQUIPMENT REGULATIONS 1998 (LOLER)

These Regulations (often abbreviated to LOLER) place duties on people and companies who own, operate or have control over lifting equipment. This includes all businesses and organizations whose employees use lifting equipment, whether owned by them or not. In most cases, lifting equipment is also work equipment so the Provision and Use of Work Equipment Regulations (PUWER) will also apply (including inspection and maintenance). All lifting operations involving lifting equipment must be properly planned by a competent person, appropriately supervised and carried out in a safe manner.

LOLER also requires that all equipment used for lifting is fit for purpose, appropriate for the task, suitably marked and, in many cases, subject to statutory periodic 'thorough examination'. Records must be kept of all thorough examinations and any defects found must be reported to both the person responsible for the equipment and the relevant enforcing authority

HAZARDS FROM HAND AND POWER TOOLS

General Risks from Hand Tools

Although hand-tools do not immediately seem as dangerous as power tools, they must be used properly at all times. Risks include injuries to the hands primarily, but also to other parts of the body, generally caused by an attitude that they are simple devices that can be picked up and used by anyone. Accidents may occur during the use and carrying of tools and the following precautions must be observed.

- (1) All electrical power tools are entered onto the Plant & Equipment register and subject to planned inspection, test and maintenance.
- (2) Pointed tools are never carried point up in any pocket or point down in any front pocket, but carried with a sharp edge away from the body in a pouch or purpose made belt.
- (3) Tools are not carried if they interfere with the use of both hands whilst climbing a ladder or structure.
- (4) Tools are not dropped or thrown from one worker to another.
- (5) Tools are not abused or misused as minor defects may have serious consequences.
- (6) Employees are instructed in four basic rules for tool safety, which are:
 - i. Select the correct tool for the job,
 - ii. Keep tools in good condition
 - iii. Use tools in a safe manner
 - iv. Keep tools in a safe place at all times

- (7) Hand tools are inspected on a regular basis, once a month, including tools borrowed or brought to the job by the worker and faulty tools replaced.
- (8) Any employee before starting to use any hand tool ensures that he is in a safe position, any other workers who may be affected are clear of the area and that he has any required personal protection in use.
- (9) Workers in the area also wear required personal protection
- (10) All equipment inspections to be recorded on a monthly Tool and Plant inspection form which can be found in the site Safety Plan.

General Risks from Power Tools

Power tools increase the hazards to workers who can experience electric shock, eye injuries, burns, cuts and strain during their use. Hazards will be reduced by following the precautions outlined.

Precautions

- (1) Keep electric supply cables and pneumatic hoses out of areas where debris is being dropped and ensure they are not dragged, buried or driven over.
- (2) Route cables and hoses to eliminate tripping hazards and the risk of the tool being wrenched from the operator if the cable or hose is dragged.
- (3) Keep cables and hoses away from chemicals, heat and sharp edges.
- (4) Disconnect from power supply before making adjustments or repairs or fitting new blades or points and replace guards before reconnection.
- (5) Before starting work checks the area for sufficient area to work safely and that the floor is firm and non-slip.

Precautions with Electric Power Tools

Electrocution, burns and shock can be prevented by following safe working practices.

- (1) Only use 110v systems, which are centre tapped to earth so the maximum electric shock they can give is 55 volts.
- (2) Only properly earthed or double insulated tools.
- (3) Temporary electrical supplies must be installed to a prescribed standard and makeshift arrangements are not allowed.
- (4) Take care not to cut through electric cables supplying power tools.
- (5) All cable repairs are made with proprietary cable connections so as to maintain the physical characteristics of cable.
- (6) Electric tools are not to be used when the operator is wet or standing on wet ground or flooring.
- (7) Special precautions are taken for the use of electric tools in flammable atmospheres.

Precautions with Pneumatic Power Tools

These present a particular hazard in that their pressurised air hoses can be cut or punctured by a careless worker, either operating the tool or elsewhere or by falling objects. Deterioration of air hoses from abrasion, contact with heat or chemicals, or poorly fastened couplings can cause an air hose to break or whip around.

- (1) Only couplings suitable for pressurised lines are used to join lengths of hose or make repairs.
- (2) Before tools are operated, tool retaining clips are put in place.
- (3) Tools will not be operated until the tool or point is on the work surface.

Tools with Abrasive Wheels

Abrasive wheels can disintegrate if they are improperly fitted or used, with the risk of serious injury to the user and others nearby. It is a statutory requirement that only persons who have been specifically trained in the requirements can fit or use a tool with an abrasive wheel and all regulations are complied with.

Precautions

- (1) It is essential that the correct type of blade is used for the type of material to be cut.
- (2) The blade must be capable of running without risk at the rotation speed of the tool. The blade should be mounted securely and in the correct rotation direction in accordance with the manufacturer's instruction.
- (3) Inspect the blade for cracks or scratches before each use and if found to be defective, replace it.
- (4) The blade guard is always kept in position to cover a substantial portion of the rotating blade.
- (5) Use protective equipment and never position yourself directly behind the blade but to one side of it.
- (6) Use a "back and forth" cutting action to avoid jamming, grinding and excessive side pressure on the rotating blades.
- (7) The worker should give his full concentration to the material being cut and ensure the blade does not make contact with anything else.
- (8) Abrasive wheels, blades are stored upright in a dry area and care taken to ensure that different types of blades do not become mixed.



HAZARDS FROM BURNING AND WELDING

General Hazards

- Welding and burning operations have a high potential for personnel injuries and fires. One cause of explosions is build-up of mixed gases in flame cutting equipment. When these ignite, flashback can occur, which can cause the regulator to explode.
- In oxy-fuel gas welding or cutting, the gas and oxygen are kept separated as long as possible. Only when they get to the mixer or injector do the two gases mix. Normally, a very small amount of mixed gas remains in the tip.
- Backfire, accompanied by a popping sound occurs when the gases in the tip explode back to the point of mixing. If the torch is lit incorrectly with both gases flowing, backfire is a definite risk, as sometimes sustained backfires occur.

Risks

1. Oxygen enrichment or deficiency due to leakage of gases from cylinders caused by mechanical damage.
2. Explosions due to heating of cylinders, causing an increase in internal pressure or a weakening of the cylinder.
3. Dangerous chemical reactions when other substances come in contact with the gases, e.g. oil and oxygen or copper and acetylene.
4. Gases may ignite causing fires if leakage occurs and cylinders are confined to a poorly ventilated space.
5. Injuries from handling or being struck by cylinders.

6. "Arc Eye".

Arrangements and Precautions to Guard against Risks

1. Welding, cutting, brazing, blowlamps or other flame-producing apparatus is operated only by trained personnel who are fully aware of all precautions required.
2. Hot work permits are used wherever hot work involving burning, cutting, welding or annealing is in progress.
3. Adequate storage arrangements are provided, for quantities of cylinders on site, in accordance with the appropriate codes of practice.
4. A programme of maintenance and testing of all related plant and equipment is carried out by a competent person and records kept of same (monthly Tool and Plant check sheet).
5. Precautions are taken to prevent fire and explosion through the provision of good working conditions, flashback arrestors and adequate fire-fighting equipment.
6. Suitable emergency procedures are formulated and made known to all concerned.
7. Material data sheets indicating safety precautions for all gases used will be supplied and adhered to.
8. Safe Plan of Action (SPA) to be developed between foremen and crews.

Precautions with Cylinders

1. Check that each cylinder is labelled and the gas is what you require.
2. Check that the system you are connecting to have been designed to take the gas pressure. Any equipment used in conjunction with gas is operated in accordance with the manufacturer's instructions.
3. Take precautions to prevent cylinders from falling when in use, in store or being transported, beware of free standing cylinders.
4. Make sure all oxygen fittings are free of oils, grease, and any combustible materials. Keep equipment clean when not in use.
5. Check all connections and equipment for leaks safely.
6. Use appropriate eye protection when handling gases and wear the appropriate protective clothing.
7. Disconnect equipment (regulators, hoses, blowpipes) before transporting cylinders on vehicles, or putting them in stores. Store cylinders in a designated and controlled place.
8. Always check cylinders for leaks before placing them in closed vehicles and ensure there is plenty of ventilation while the cylinders remain in the vehicle.
9. Never disguise damage in any way or attempt to repair cylinder, report all damages to manufacturers or suppliers.

General Precautions

1. Before starting to burn or weld, the workplace is inspected to ensure that sparks or molten metal won't fall on combustible materials.
2. Where combustible material is fixed and immovable, it is protected with non-combustible material such as sheet metal or a fire blanket.
3. Floors which might otherwise be damaged are protected from the heat of flames and hot slag.
4. Special care is taken to prevent flame, sparks or molten metal reaching combustible materials along or down ducts, channels, chases or open-ended pipes, or through holes in walls and floors. Non-combustible material exposed to such metal removed or protected.
5. The possibility of damage by heat transfer in metal work e.g. through partitions is investigated before work commences and combustible material exposed to such metal removed or protected.
6. Apparatus is not left alight when unattended.
7. Adequate cooling off periods is, allowed for, and such work is not commenced within one hour of ceasing the day's work.
8. Immediately after completion of work the "Danger Area" is examined by the operator to ensure there is no smouldering or incipient fire.
9. Flame producing apparatus is not lit unless adequate fire-fighting appliances are in place.
10. All operatives of such equipment are trained and understand the operating instructions for the various types of fire-fighting appliances.
11. Where burning or welding is carried out at high levels or at any other area where there is a danger to personnel from molten metal, etc. warning signs are posted or other means used to warn personnel of the danger.

Ventilation and Protection

1. Welding, burning and heating performed in confined spaces may require general mechanical or local exhaust ventilation to reduce the concentration of smoke and fumes to acceptable levels.
2. If ventilation cannot be provided employees are provided with and required to use air-supplied breathing apparatus.
3. When welding, cutting or heating metals having toxic properties such as zinc, lead, cadmium or chromium-bearing metals, in the open air, filter type respirators are used.
4. Never attempt to work if automatic pressure regulators are not fitted to both gas cylinders and release the adjusting screw before fitting a regulator to avoid damage.
5. Check that all connections are compatible before fitting them and do not force the connections to fit.
6. Always use good quality hose, free from hardening, cracking and similar defects and never use copper or copper alloys to connect hoses

7. Joints in hoses should be avoided as should unnecessarily long hose. All jointing must be achieved by proper connection. All connections must be clipped. No jubilee clips.
8. Always allow an adequate supply of fuel gas from the blow pipe nozzle before lighting up all gas to disappear if second try is required.
9. Always check for leaks with caution and do not continue working if one is suspected.
10. Where a leak is suspected apply leak detection solution, brushing on to all joints and connections. Bubbling of the solution indicates a fault. Never test for leaks with a naked flame.
11. Do not allow cylinders to be bumped or dropped as this may cause mechanical shock or damage, use slings to eliminate bumping or dropping during transit.
12. Off load individually with a sling and do not lift by the nozzle or valve appliance and keep free of grease-contaminated hands, gloves or rags.
13. Keep cylinders away from electrical wires and appliances and never allow near to spark, flame or welding operation that might cause heat or flame contact.
14. Do not lubricate any valve, especially avoiding lead-based jointing compounds.
15. Avoid dirt or grit entering the valve. If this occurs open and close the valve momentarily (shifting) before attaching fittings or regulators.
16. Never transport cylinders whilst hoses and regulators are attached unless on a suitable trolley, and always keep valve shut during transit.
17. Bottle key to be attached to all gas bottles while working.

Action in the event of fire

- (a) Evacuate the area and keep personnel a minimum of 100m away from hazard.
- (b) Call the fire brigade and inform them, on arrival, of the location and type of any gas cylinders involved in the fire and any others on the premises.
- (c) Cylinders which are not directly involved in the fire and which have not become heated should be removed as quickly as possible to a safe place, provided this can be done without undue risk. Make sure cylinder valves are closed
- (d) Cylinders in the fire should be cooled by spraying with copious quantities of water over the entire exposed surface, taking up positions which give protection from explosion.
- (e) Great caution should be taken after the fire has been extinguished as there is still the possible danger of cylinders exploding. Contact the supplier for assistance.

Electric Arc Welding

Many hazards of oxy-acetylene welding apply to electric arc welding; however, it is generally less hazardous.

Precautions for the provision of Safe Working Conditions.

1. All cables and couplings are of adequate construction for the welding operation, use suitable equipment for rough surfaces and tough conditions.

2. All terminals and live components are sufficiently protected and do not use damaged or poorly insulated cables.
3. Cables are not allowed to train across walkways or similar hazardous work areas and unnecessarily long cables are avoided.
4. All joints are completed with suitable insulated cable couplings.
5. A good system of isolating is ensured by a fuse switch on any transformer or motor generator.
6. Interlocking fuse switches are used for supplying trailing cables to avoid accidental disconnection.
7. Work is never done without a suitable efficient earth connection.
8. All connections, equipment and cables are checked before use.
9. Appropriate protective equipment is used by the operator and put in place to protect others from “arc eye” and similar dangers

GAS SAFETY

Gas Escapes

Open all windows and vacate the area.

If possible turn off all the gas supply for that particular area.

Extinguish all naked lights and cut off other possible sources of ignition **but do not operate electrical switches.**

Report any suspected gas leak to any member of Site Management.

Report serious gas escapes on the Emergency number:

EMERGENCY CONTACT No:

Bord Gáis Networks provides a 24 hour Emergency Response Service. If you smell gas call us immediately. Don't assume someone else has reported the smell.

In an emergency call the 24-hour Emergency Line:

1850 20 50 50

BEFORE DIGGING:

Call 1850 427747

CARBON MONOXIDE

Danger Signs

- Watch out for any of the warning signs that your appliance is not functioning properly:
- A yellow or orange flame where normally blue
- Appliances that burn slowly, badly (floppy flames), or go out staining, sooting or discolouration around the appliance
- Condensation on walls/windows

- A strange smell when appliance is on
- If you experience [flu-like symptoms](#) such as drowsiness or headaches

Dangerous amounts of Carbon Monoxide can accumulate in your home or a room in your home as a result of any or a combination of the following:

- Faulty or damaged gas appliances
- Gas appliances not maintained or service
- Rooms not adequately ventilated
- Blocked chimneys or flues
- Indoor use of a barbecue grill or outdoor heater
- Poor installation of a gas appliances
- Improper operation of an appliance
- Property alterations or home improvements which reduce ventilation
- Using a cooking appliance for heating purposes

Symptoms of Carbon Monoxide Poisoning

When Carbon Monoxide is inhaled into the body, it combines with the blood, preventing it from absorbing oxygen. Symptoms of Carbon Monoxide poisoning can be similar to those caused by other illnesses such as a cold or flu.

- Drowsiness
- Unexplained headaches, chest pains or muscular weakness
- Sickness, diarrhoea or stomach pains
- Sudden dizziness when standing up
- General lethargy
- Sickness, diarrhoea and stomach pains

If anyone in the workplace has any of the symptoms outlined above get fresh air immediately, then go to your doctor and ask him/her to check for Carbon Monoxide poisoning.

Stop using the appliance immediately and do not use it again until it has been checked by a registered installer or a qualified service agent.

The amount of CO which the blood absorbs depends chiefly on two things: how much CO is in the air and the time of the exposure. Adverse effects of CO on humans are reduced by periods of breathing fresh air. The degree of recovery depends on the number and length of those periods. The general state of health and degree of physical activity of a person exposed to CO are other factors involved in the effects of Carbon Monoxide on the body.

If you or your workmates experience symptoms and you believe CO may be involved you should seek urgent medical advice. Inform your doctor of your concerns. CO will leave the blood when you go out into the fresh air and tests for CO may be inaccurate if taken hours after the exposure has ceased.

Again, if you find a person ill or unconscious near any fuel burning appliance, be careful in case you also become a casualty. Get fresh air immediately by opening windows and doors.

For further information on Carbon Monoxide or to arrange for a safety inspection please call:

1850 79 79 79

The Carbon Monoxide phone line is open Monday – Friday, 8am – 9pm and Saturday 9am – 5pm

HAZARDS FROM POOR HOUSEKEEPING

General Hazards

Many accidents such as trips, slips and falls are due to poor housekeeping in the workplace. Workers have fallen from considerable heights and received only minor injuries, while others fall from a standing or sitting position have died from their injuries.

Nearly all trips, slips and falls result from obvious conditions or practices. Preventing such accidents requires maintaining safe working conditions and controlled unsafe acts of persons.

Risks of Personnel

Poor housekeeping may lead to many accidents ranging from accidents where there is no personal injury, that is, equipment damage only, accidents giving minor injuries or to very serious injuries or fatalities. Good housekeeping is an important part of I.I.T... safety programme. It is the responsibility of all employees, supervisors, craftsmen, apprentices, and general operatives alike, to practice good housekeeping at all times.

Arrangements

I.I.T... management considers good housekeeping important in providing a safe place of work for all its employees, and also leads to good industrial relations, and productivity. Management contribute to good housekeeping by:

- (1) Including housekeeping in the planning of all operations by setting up control measures and regulating work practices.
- (2) Providing equipment to maintain all work area in a clean and ordered state including waste bins, cleaning equipment, storage areas etc.
- (3) Including good housekeeping as part of every individual's job responsibility at all levels of the organisation.
- (4) I.I.T... operates a Clean as You Go policy regarding housekeeping.
- (5) Maintaining control of work places and interest in good housekeeping practices.

Supervisors have a role in safeguarding against trips, slips and falls and play their part by daily inspections of all work areas to ensure good housekeeping practices are carried out by:

- (1) Maintaining constant vigilance on good housekeeping.
- (2) Having poor situations corrected and cleaned up immediately.
- (3) Seeing that employees play their part in ensuring good housekeeping.
- (4) Issue clear instructions to employees on standards of housekeeping required insisting on clean- up of work areas after every job.
- (5) Prohibit leaving materials, tools or equipment in passageways.

All employees are instructed in good housekeeping practices and play their role by:

- (1) Following all instructions as to maintaining good housekeeping.
- (2) Provision of a definite place for each item article or substance.
- (3) Keeping each article or substance in its designated place or returning it if removed.
- (4) Provision of adequate disposal arrangements of scrap, waste and surplus materials.
- (5) General cleanliness of all work areas and equipment.
- (6) Sufficient working spaces and adequate passageways for safe access and egress.
- (7) Adequate space for materials, tools and portable equipment.
- (8) Anticipation of waste, scrap, spillage, leakage, dust, splashing and provision of some means of control.
- (9) Only the materials required for that day to be taken to the workplace and return all surplus materials to the stores or stockpiles at the completion of the job or end of the day.
- (10) Provision of adequate illumination by keeping windows and lighting clean.
- (11) Removing any obstruction found, do not leave it for someone else, removal and control of all sharp objects especially nails.
- (12) Keep changing rooms, canteen, offices and all facilities clean and free of build-up of waste materials.
- (13) Never ignore a housekeeping hazard, put it right.

ROOF WORK HAZARDS

Almost one in five deaths in construction occur in roof work and nearly all could be prevented by the provision and proper use of readily available equipment.

Where works is to be carried out on a pitched roof, special provisions are made to reduce the risk of falling, e.g. use of roofing ladders and crawling boards. Also, at the edge of a pitched roof arrangements are made to prevent a fall directly to the ground. The usual procedure is to use directly, or adapt, the top platforms of the general scaffolds.

Fragile Roofs

On roofs covered by fragile materials, roof ladders or crawling boards are used, as an absolute minimum two ladders or two boards are used if employees are required to do any movement on fragile roofs. NOTE:

Never step onto asbestos or non-asbestos cement or plastic sheeting, or fragile roofing. It is liable to shatter without warning under a person's weight. Where a valley or parapet gutter is used as a means of access and the adjacent roof is covered by fragile materials, suitable cover, extending a minimum of 1m up to the roof, or other means, are provided, to prevent a fall through the fragile material.

Sloping Roofs

The degree of danger will depend on the pitch of the roof, the nature of the surface and the weather conditions. Smooth surfaces made slippery by moisture, ice, snow, or vegetable growth can be particularly dangerous. Barriers to prevent falls from pitched roofs are provided, high enough and strong enough to stop a person who may roll or slide down the roof slope. On sloping roofs suitable purpose made roof ladders or crawling boards are provide.

Flat/Virtually Flat Roofs

Barriers are provided sufficiently strong to prevent workers from falling from the edge or through an opening or through fragile roof light. Where openings are covered over they are substantial are secured in position and marked to show its purpose.

GENERAL PRECAUTIONS

Ensure that:

Everyone is aware of the precautions to be followed when working at heights, as well as the detailed training of their own job.

Prominent permanent warning notices are placed at the approach to any hazards of falling e.g. fragile roofs.

Personnel never walk on fragile roofing materials such as asbestos cement or glass and take precautions as they may be painted over.

Personnel on fragile roofs never walk along the valley gutters, roof ridges or purloins, unless there is something to prevent a fall through the roof.

Personnel on fragile or pitched roofs use suitable crawling boards, NOTE: Never use less than two boards if you have to move along the roof and cover skylights on otherwise solid roofs.

Even on a flat roof the edges are protected by a parapet and/or guard-rails and that the roof is strong enough to support personnel.

Where someone could fall over the edge, temporary guard-rails and toe boards are installed or anchorage points for safety belts are provided. Ensure safety belts are worn.

Items are prevented from falling onto people below. Use barriers, warning notice or a "look out".

Unless absolutely necessary personnel do not go onto roofs in bad weather e.g. high winds, especially if carrying sheet material, or where there may be other hazards e.g. fumes from flue outlets.

HAZARDS IN SITE OFFICE/GENERAL OFFICES

General Hazards

Offices are comparatively safe places of work, yet accidents occur from exposure to risks. The risks include fire hazards, slips, trips and falls, collisions, electrocution, stress, etc.

Arrangements to Guard against Risks

The office manager is responsible for ensuring all precautions are taken to ensure the health and safety of employees within all offices. Project Directors or supervisors are responsible for ensuring all precautions are taken to ensure the safety of site offices.

Precautions

- (1) Appropriate standards of housekeeping are maintained at all times.
- (2) All power cables or similar items are positioned so as to avoid the risks of trips and falls.
- (3) All electrical equipment is switched off and isolated from the mains supply when not in use.
- (4) All electrical and other repairs are only carried out by appropriately qualified persons,
- (5) All office equipment is located so as to avoid the risk of falls or collisions when in use.
- (6) There is adequate means of access and egress from workplaces including adequate means of escape in the case of fire, which is clearly marked.
- (7) All employees on the premises are made aware of the means of escape the evacuation procedure, safe meeting point and operation of fire- fighting equipment.
- (8) The volume of paper, drawings, etc. is kept to a minimum, waste paper and other flammable materials are removed regularly to minimise the fire hazard.
- (9) Adequate ashtrays are provided for the safe extinguishing of used smoking materials and provision made for the health of non-smokers. Smoking is not permitted in I.I.T... offices, cabins, containers and vehicles
- (10) All seating arrangements and work areas are ergonomically designed to minimise stress and strain and to maintain employee's health and safety.

Office Rules

- (1) Be careful of swivel chairs; do not slump back in them without first testing your weight gradually.
- (2) Be sure you have a firm footing when you have to climb, use a safe stepladder.
- (3) Walk; do not run at any time, in corridors or on stairs and use handrails.
- (4) Do not stand and talk in front of closed doors, they may open suddenly.
- (5) Do not push or crowd at elevators, entrances, or on stairways.
- (6) Read mail and other materials at your desk, not while walking around.
- (7) Watch for tripping hazards such as telephone cords, office equipment cables, waste baskets and other hazards and put them right if safe to do so.

- (8) Use handles when closing files, desk drawers and doors.
- (9) Keep file drawers, desk drawers and locker doors closed when not in use. Open only one file or desk drawer at a time. See that files and bookcases are stable or bolted to the wall.
- (10) Check office furniture for sharp edges or splinters and loose casters, etc.
- (11) Handle sharp objects carefully and keep them in their proper place.
- (12) Make sure all office equipment is solidly placed and manufacturer's instructions followed.
- (13) Do not adjust or clean office equipment when they are plugged in, always unplug for safety.
- (14) Do not attempt to do electrical repairs, call a qualified person.
- (15) If smoking is permitted use ashtrays provided and always obey "No Smoking" signs.
- (16) Report all work-incurred injuries or illnesses immediately to your supervisor and to First Aider.
- (17) Use canteen facilities safely and never walk around carrying cups of hot drinks without assistance.
- (18) Report any hazards found and always follow the guidelines to kinetic lifting when moving objects.

STORAGE OF MATERIALS ON SITE

All material storage areas must be safe, secure and weather-proofed to prevent damage and theft. Fuel storage containers must be placed in bunds to retain any spillage or leakage. I.I.T. will ensure that all storage areas will have appropriate signage in place and have a fire point containing a suitable fire extinguisher(s). Smoking, open flame and fire is prohibited in the proximity of combustible or flammable materials storage or use.

Where it is necessary to store fuel oil, petrol or any other combustible liquids on site contractors must make all necessary arrangements to isolate such storage from any source of ignition or impact and provide containment and clean up facilities in the event of any spillage. Petrol may only be stored in and dispensed from approved metal safety cans. Use only approved containers that are properly labelled.

No hazardous chemicals will be brought on to the Client site without prior written approval from and Client EHS department and will be stored correctly in accordance to their permit.

CONFINED SPACE

Confined space entry requires proper planning and coordination between the Supervisor, Attendant and the Entrants. The Supervisor shall be responsible for determining the scope of work and the required confined space controls that need to be in place prior to entry. In able to have a safe work procedure in confined space, a written SPA shall be prepared by the Supervisor in conjunction with the HSE Officer. The following shall be included on the program:

The purpose of entering the confined space for I.I.T. staff is to work inside a water tank either finishing the installation, inserting a man-way in an already installed but drained water tank.

Required isolation of equipment, water supply to a tank, electrical supply or piping.

Task Assessment to include hazard presents in the space such as oxygen deficiency, combustibility, toxicity and the physical hazard.

Names of authorized entrants, attendants, and the entry supervisor.

The rescue plan to be used in case of emergency.

Personal Protective Equipment to be used, including suitable Respiratory Protection based on Risk Assessed Hazards.

Communication between the attendant and the entrants.

Entrant

1. Attend the appropriate training prior to enter in confined space.
2. Alert the attendant to any signs of danger or the existence of a hazardous condition.
3. Be knowledgeable of the hazards associated with confined spaces, recognize the symptoms of exposure and understand the consequences of exposure.
4. Initiate rescue plan if conditions become hazardous or exit as quickly as possible if advised to do so by the attendant.

Attendant(s)

1. Attend the appropriate training including specific training in rescue operation.
2. Be at the confined space entry location at all times whenever entrants are inside the confined space. Attendants cannot perform other duties that could interfere their primary duty, which is to monitor and protect the safety of the authorized entrant.

Controlling access to the confined space, permitting only those authorized to enter.

1. Ensuring the confined space is evacuated in the event of an emergency.
2. Be knowledgeable of the hazards associated with confined spaces, recognize the symptoms of exposure and understand the consequences of exposure.
3. Communicate with entrant as necessary to monitor the entrant status.
4. Monitor activities inside and outside confined space and order emergency exit plan if required.
5. Initiate the use of non-entry rescue equipment to rescue entrants. The attendant is only permitted to enter the confined space to rescue entrants if trained to do so.
6. Provide information to additional emergency responders, including the number of entrants in the space, the space configuration, and any known hazards in the space.
7. Monitor the status/effectiveness of engineering controls (e.g., forced air ventilation) required for entry as per the Confined Space Procedure

Supervisor

1. Attend the appropriate training on confined space entry.
2. Secure required confined space work entry permit. (Appendix 2 Sample)
3. Confirmed/ensure that the required Lock Out Tag Out (LOTO) or isolation of required utilities are completed.
4. Prepare Risk assessment in conjunction with the HSE Officer
5. Complete the SPA with all personnel involved in confined space work prior to execution of work & sign off.
6. Ensure that the forced ventilation, if required, is in place and working.
7. Ensure that an attendant is present at all points of entry and that they are aware of their duties.
8. Ensure that records are maintained of all persons entering the space.
9. Ensure that the space is evacuated and in a safe condition prior to the permit being closed.

I.I.T Safety Rep / Officer shall:

1. Ensure that all personnel involved in confined space entry received appropriate training.
2. Check the work permit with the supervisor to ensure that all the controls are in place.
3. Ensure that the rescue plan is available and all are aware of this & of the entry being carried out.
4. Ensure that the retrieval system, if required based on risk assessment, is in place.
5. Ensure that only work authorised by the permit is carried out.
6. Hot Work will require an additional permit to be issued.
7. Determine that all pre-entry criteria have been met

Legislation & Regulations regarding working in a confined space for Ireland / UK

IRISH:

- Safety Health & Welfare at Work (Work at Height) Regulations 2006
- Safety Health & Welfare at Work (General Application) Regulation 2007
- Safety, Health & Welfare at Work (Construction) Regulations 2006 section 84(a)
- 2001 Approved Code of Practice for Working in Confined Spaces www.hsa.ie
- Safety, Health & Welfare at Work (Construction) Regulations 2006 section 84(a)

UK:

- The Health and Safety at Work etc. Act 1974
- The Lifting Operations and Lifting equipment Regulations 1998 (LOLER)
- The Provision and Use of Work equipment Regulations 1998 (PUWER)
- The Construction (Health, Safety and Welfare) Regulations 1996
- The Confined Space Regulations 1997
- INDG258 Safe Work in Confined Space www.hse.gov.uk

WORKPLACE STRESS:

Stress in the work place is now an ever increasing problem and can cause bad effects on the individual and on the organisation. Anyone who feels that they are under unreasonable stress or anyone who notices anyone else who seems to be under stress should bring the problem to the attention of any of the safety personal or management. The matter will be dealt with by the following procedures:

- a) Identification of (potential) problems
- b) Assessment of risks
- c) Implementation of safeguards
- d) Monitoring the effectiveness of the safeguards.

VIOLENCE:

The company define violence as “Any incident where persons are abused, threatened or assaulted in circumstances related to their work, involving and explicit or implicit challenge to their safety, well-being or health”

Any person who has experienced any event which they feel is violence should report the incident to the management immediately.

The management will endeavour to limit the risk of violence occurring at work.

BULLYING:

Bullying is defined by the company as “any person who treats another, on a regular basis, in an aggressive, intimidatory or derogatory manner, which is perceived by the recipient as offensive, demeaning and / or threatening. The bully, intentionally or unintentionally, misuses the power of their position, knowledge or personality to domineer or humiliate others.

Any person who has experienced any event which they feel is Bullying should report the incident to the management immediately.

Any person who has witnessed any event which they feel is Bullying should also report the incident to the management immediately.

The management will endeavour to limit the risk of Bullying occurring at work.

SEXUAL HARASSMENT:

Definition: “Unwanted conduct of a sexual nature or other conduct based on sex affecting the dignity of women and men at work”

Labour Court Order EEO 2/85: “Freedom from sexual harassment is a condition of work which an employee of either sex is entitled to expect. The Court will accordingly treat any denial of that freedom as discrimination within the meaning of the employment Equality Act 1977”

I.I.T... has put in place the following procedures for dealing with this situation:

- 1: Any member of staff in conjunction with the Managing Director or Safety Officer may set into motion these procedures on behalf of any other member of staff.
- 2: The victim will be free to legal advice and representation during all procedures.
- 3: The option preferred by the victim must be enacted upon first.
- 4: Procedures can include: a) Writing a letter, b) Third party intervention, c) Written complaints.
- 5: On the initiation of the victim the company will: a) File a written complaint, b) Initiate an investigation, c) Conduct a hearing, d) And if found guilty, this offence can be punishable by dismissal.
- 6: Anybody accused of sexual harassment will be free to legal advice and representation and to appeal any decision made.

EMERGENCY PLAN

In the event of a serious accident, fire or other emergencies, the following course of action must be taken.

FIRE:

- 1: On evidence of a fire or notification of a fire, all employees should immediately vacate the premises. This should be done as calmly and as quickly as possible. The nearest exit should be used to vacate the premises.
- 2: All employees should assemble at the designated control point.
- 3: The manager should be aware of all persons who are on site and conduct a roll call from the attendance log book to ensure everyone has safely evacuated.
- 4: The fire- fighting services should be notified.
- 5: A person should be nominated to meet the fire- fighting services in order to lead them to the location of the fire. (This is for cases where the services may not be aware of the location of the site)
- 6: On arrival of the services, the manager should confirm, or otherwise, that everyone has safely evacuated. Furthermore the services should be informed of any special hazards such as explosive or highly flammable materials that may be on site.
- 7: On no account should anyone attempt to fight the fire alone and unless the fire is small and poses no immediate danger or there being other extenuating circumstances should anyone return to a building which is on fire. For more information concerning this matter prior advice should be sought from the relevant fire officer.

9: If any person is trapped in a blazing building, the other emergency services should also be notified i.e. Ambulance and other medical services and, as for the fire-fighting services, if circumstances warrant it, a person should be nominated to lead these services to the fire location.

11: Training should be provided for this eventuality and regular fire drills should be arranged.

There are certain operations which when being undertaken require by law, that site based company personnel, wear specific protective equipment. The protective clothing and equipment listed below can be obtained from the company's site safety officer/or site management.

Ear Protectors: BS. 5108 / EN352-1

Safety Glasses & Goggles EN170 & EN166 (Goggles – EN 166 / BS. 2092/1)

Dust Masks EN 149

Safety Harness/Belts: BS. EN 361 / EN 354 (EN360 Retractable Block)

Safety Boots: BS. EN 345

Either the Company Safety Officer or Store man keeps a schedule of all the safety equipment handed out to whom and on what date.

Evidence of conformity to the regulations is by initials CE marked by the manufacturer on equipment.

I.I.T... company policy for all site works requires all staff to wear “safety gloves and safety glasses” at all times.

IRISH. INDUSTRIAL. TANKS LTD...



PART 03:

Risk Assessments

Completed by Supervisor / Foreman on site to ensure they are task specific
More specific risk assessments can be seen in a project specific safety statement
Generic risk assessments can also be made task specific by using a safe plan of action.

CONTENTS

PART 3

Company Risk Assessments

Schedules of Tasks with Risk to Environmental, Health & Safety

1. Working at Heights
2. Mobile Elevated Working Platforms
3. Storage of Materials on Site
4. Using Portable Pipe Threading Machines
5. Work in Confined Spaces
6. Fire on Site
7. Office Work
8. Use of Fork Lift Trucks
9. Use of Portable Electrical Equipment
10. Use of Disc Cutters & Abrasive Wheels
11. Storage & Use of LPG
12. Use of Access Scaffolding
13. Work in Occupied Premises
14. Use of Mobile Scaffold Towers
15. Use of Step Ladders
16. Slinging of Loads
17. Lifting Operations using Mobile Crane
18. Use of Hand Tools
19. Work in the Vicinity of Underground Services
20. Work Near or Under Overhead Power Lines
21. Use of Arc Welding Equipment
22. Use of Gas Welding & Cutting Equipment
23. Using Podium Stepladders
24. Manual Handling

Company Risk Assessments

RISK ASSESS NO.	DESCRIPTION OF TASK		
1.	WORKING AT HEIGHTS		
2.	MOBILE WORKING ELEVATED PLATFORMS		
3.	STORAGE OF MATERIALS ON SITE		
4.	WORK IN CONFINED SPACES		
5.	SETTING UP SITE FACILITIES : OFFICES, WELFARE & STORAGE		
6.	FIRE ON SITE		
7.	OFFICE WORK		
8.	LASERS		
9.	USE OF FORK LIFT TRUCKS		
10.	USE OF PORTABLE ELECTRICAL EQUIPMENT		
11.	USE OF DISC CUTTERS & ABRASIVE WHEELS		
12.	USE OF ACCESS SCAFFOLDING		
13.	WORK IN OCCUPIED PREMISES		
14.	USE OF MOBILE SCAFFOLD TOWERS		

[illegible]

ACTIVITY COVERED BY THIS ASSESSMENT		MOBILE ELEVATED WORKING PLATFORMS																	
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating															
1.	Falls of Persons	High	To	Low															
2.	Falls of Materials	Med		Low															
3.	Unintentional Lowering of Platform	Med		Low															
4.	Striking against Overhead Obstructions	Med		Low															
5.	Platform Overturning	Med		Low															
6.	Vehicles or Plant Striking Platform	Med		Low															
7.	Crush injuries when raising platform	Med		Low															
<u>ACTIONS TO REDUCE THE RISKS:</u> <ol style="list-style-type: none">Only competent persons to use the hoistA spotter must be in place at all timesSegregate the work area below to remove the hazard to others <p><u>Compliance with:</u></p> <table><tr><td>European Communities (Machinery) Regs:</td><td>2001</td></tr><tr><td>Manufacturer’s Instructions</td><td></td></tr><tr><td>Safety Health & Welfare at Work Act :</td><td>2005</td></tr><tr><td>Safety Health & Welfare at Work (General Applications) Regulations</td><td>:2007</td></tr><tr><td>Mobile Elevated Work Platform : Internal Training Programme</td><td>2002</td></tr><tr><td>Safety, Health and Welfare at Work (Work at Heights) Regs:</td><td>2006.</td></tr><tr><td>Safety Health & Welfare at Work (Construction Regulation)</td><td>:2013</td></tr></table> <p><u>Planning:</u></p> <ul style="list-style-type: none">Area of M.E.W.P. use will be surveyed before M.E.W.P. deployment.Control of traffic and pedestrians will be planned.Platform capacity will be checked to ensure sufficient height and SWL for the work undertaken, before use.Where owned by the Company, this equipment is subject to the planned maintenance programme. Where hired, proof of servicing will be required. Certification and inspection / GA3. <p><u>Physical:</u></p> <ul style="list-style-type: none">The area of work is to be fenced off.Platforms must not be operated outside limits set by the manufacturer.The operating area will be firm and level. Stabilisers will be extended before the platform is raised; platforms are not to be left unattended in the raised position. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none">Platforms require regular maintenance, which must be arranged at appropriate intervals.Managers are responsible for ensuring that only trained and authorised personnel use the platforms. <p><u>Training:</u></p> <ul style="list-style-type: none">All operatives must be trained in the safe use of these platforms. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none">I.I.T... Staff & SubcontractorsOther Contractors						European Communities (Machinery) Regs:	2001	Manufacturer’s Instructions		Safety Health & Welfare at Work Act :	2005	Safety Health & Welfare at Work (General Applications) Regulations	:2007	Mobile Elevated Work Platform : Internal Training Programme	2002	Safety, Health and Welfare at Work (Work at Heights) Regs:	2006.	Safety Health & Welfare at Work (Construction Regulation)	:2013
European Communities (Machinery) Regs:	2001																		
Manufacturer’s Instructions																			
Safety Health & Welfare at Work Act :	2005																		
Safety Health & Welfare at Work (General Applications) Regulations	:2007																		
Mobile Elevated Work Platform : Internal Training Programme	2002																		
Safety, Health and Welfare at Work (Work at Heights) Regs:	2006.																		
Safety Health & Welfare at Work (Construction Regulation)	:2013																		

ACTIVITY COVERED BY THIS ASSESSMENT			WORKING AT HEIGHTS		
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Falls of Persons	High	To	Low	
2.	Falls of Materials	Med		Low	
3.	Suspension Trauma	Med		Low	
4.	Affecting others working below	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. Implement I.I.T. s “Platform & Guardrail” policy 2. Specific risk assessment must be carried out for all work at height by the foreman. 3. Segregate the area below if required. <p><u>Compliance with:</u></p> <p>Safety Health & Welfare at Work (General Applications) : 2007 Health & Welfare at Work Act 2005 Safety Health & Welfare at Work (Construction) Regs 2013</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • Work is planned to ensure a safe means of access is provided. Completing the I.I.T.-Working at height Risk assessment and selection of access equipment (ref 2006-mesms-001) See separate assessments for use of ladders, scaffolding, mobile elevating working platforms and mobile scaffold towers. Consideration shall be given to Rescue arrangements for Persons working at Height to ensure the casualty is attended to in a timely manner and to minimise the risk of suspension trauma. All equipment is provided and maintained to require legal and other standards. • The project foreman will carry out the task specific “working @height” risk assessment for each task. This will be in addition to the safe plan of action for the task. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • Suitable signs and barriers will be positioned directly below works to warn of overhead operations. • Edge protection will be erected at all openings or edges where falls of could occur. • Where edge protection is removed for access, or is not practicable, safety lines and harnesses will be worn by operatives working at or near the edge. • Where there is likely to be debris falling, fans, chutes or full enclosures will be used to protect third parties. • All operatives working below overhead operations will wear safety helmets. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • All equipment used will be checked to ensure it is in good order, to correct specification, and in date for inspection. • Work will be monitored to ensure that additional precautions and equipment is taken into use if edge protection is removed. • Other relevant British Standards include: • EN361 / EN358 /EN355 - Safety belts & harnesses • BS 5845 : 1980 - Anchors for safety harnesses • BS 8213 Part 1 - Code of Practice for cleaning of windows & doors <p><u>Training:</u></p> <ul style="list-style-type: none"> • Training and instruction must be provided to all operatives and supervisory staff involved in work at height... Additional training and instruction will be provided in the use of lines and harnesses, and how to inspect and assess PPE of this type before use. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T... Staff & Subcontractors • Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		STORAGE OF MATERIALS ON SITE			
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating		
1.	Injury to operatives from falling materials	Med	To	Low	
2.	Injury to trespassers, especially children	Med		Low	
3.	Environmental contamination	Med		Low	
4	Trips and Falls due to poor storage	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. Ensure all equipment is stored neatly, correctly and securely to reduce the hazard. 2. Segregate storage areas and keep all walkways clear. <p><u>Compliance with:</u></p> <p>Safe under Pressure (B.O.C.) (Oxygen & Acetylene)</p> <p>Safety Health & Welfare at Work (Chemical Agents) Regulations : 2001</p> <p>Safety Health & Welfare at Work (General Applications) Regulations : 2007</p> <p>Safety Health & Welfare at Work Act : 2005</p> <p>Safety Health & Welfare at Work (Construction Regulations) : 2013</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • Minimum quantities of materials will be supplied on site. • The manufacturer's recommendations will be followed with respect to temperature and humidity requirements, and stacking. • For hazardous materials, M.S.D. sheets will be required before delivery to site. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • Palletised loads will not exceed two pallets in height. • Loads will be lifted in the correct manner, avoiding the use of makeshift arrangements. • Compressed gas cylinders will be stored upright. • Stacks of cylindrical objects such as pipes and cable drums will be stabilised using chocks or wedges. • Material stacks will be limited in height to ensure stability; heights of more than 2m will be avoided unless specifically authorised by site management. • Drums and containers will be marked clearly to indicate contents. • Secure storage will be provided for all hazardous substances, to prevent access by unauthorised persons. • Trays or bunds will be provided where necessary beneath containers to prevent ground contamination. • Handrails will be fitted to storage areas where persons could fall from height <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • Stockpiles and storage areas will be inspected regularly to ensure that the above physical precautions are in place. <p><u>Training:</u></p> <ul style="list-style-type: none"> • Verbal instructions and training will be given to operatives as necessary to ensure good housekeeping standards are maintained on site. Stability and stacking instructions will be given as needed to site operatives by management. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T... Staff & Subcontractors • Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT	USING PORTABLE PIPE THREADING MACHINES
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SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating	
1. 2. 3. 4.	Clothing entanglement with moving parts Skin damage from threading oil. Collapse of the machine during use Electric Shock due to poor / faulty wiring	Med Med Med Med	To	Low Low Low Low

ACTIONS TO REDUCE THE RISKS:

- 1. No loose clothing to be worn near moving parts
- 2. Hands should be washed regularly – consult .S.D.S. (safety data sheets) also
- 3. Inspect the machine prior to each use for both structural and electrical faults.

Compliance with:

European Communities (Machinery) Regs	2001
Safety Health & Welfare at Work Act	2005
Safety Health & Welfare at Work (General Applications) Reg.	2007
Safety Health & Welfare at Work (Construction Regulations):	2013

Planning:

- Positioning of machines will be planned to allow clear access and avoid causing obstructions.
- Machines will be maintained to the manufacturer's instructions.
- M.S.D. Sheets must be available for any lubricating or cutting fluids used on machines.

Physical:

- Guards are to be fitted to the rotating parts, and end guards around the rotating pipe ends, unless the machine is positioned so that no person can approach a rotating pipe end.
- Machines are to be positioned clear of access routes and warning notices are to be displayed.
- Operators are not to wear loose clothing or gloves, or use rags or other materials which could be become entangled with moving parts.
- Machines will be operated by foot switches, and supply leads are to be routed as to avoid damage to leads and trip hazards.

Managerial/Supervisory:

- Only trained operators are to erect maintain and use these machines. The work area is to be monitored to ensure clear access is available at the machine, that all guards are in place and the floor is clean.
- Machines are not to be left running while unattended.
- Stockpiles and storage areas will be inspected regularly to ensure that the above physical precautions are in place.

Training:

- Operators will be trained to set up and use these machines in accordance with manufacturer's instructions, and to follow the advice in P.M. 1. Operators will also be made aware of any hazards and controls required by relevant .Safety. Data. Sheets.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractors

ACTIVITY COVERED BY THIS ASSESSMENT		WORK IN CONFINED SPACES			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Poisoning from toxic gases	High	To	Low	
2.	Asphyxiation - lack of oxygen	Med		Low	
3.	Explosion	Med		Low	
4.	Fire	Med		Low	
5.	Excessive Heat	Med		Low	
6.	Drowning	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> All confined space works must be undertaken under a permit system to be controlled by the P.S.C.S. or the I.I.T. project supervisor. Gas meters must be used in conjunction with a winch type rescue system Only competent and trained persons will be involved in the operation. <p><u>Compliance with:</u></p> <p>Safety Health & Welfare at Work (Confined Spaces) Reg : 2001</p> <p>Safety Health & Welfare at Work Act : 2005</p> <p>Safety Health & Welfare at Work (General Applications) : 2007</p> <p>Safety Health & Welfare at Work (Construction Regs.) : 2013</p> <p>H.S.A. Approved Code of Practice for Confined Spaces : 2001</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> Eliminate need for entry or use of hazardous materials by selection of alternative methods of work or materials. Assessment of: ventilation available and possible local exhaust ventilation requirements, potential presence of hazardous gases, atmosphere, process by-products, need for improved hygiene/welfare facility. <p><u>Physical:</u></p> <ul style="list-style-type: none"> Documented entry system will apply, preferably permit to Work. Adequate ventilation will be present or arranged. Detection equipment will be present before entry to check on levels of oxygen and presence of toxic or explosive substances. The area will be tested before entry and continually during the presence of persons in the confined space. Breathing apparatus or airlines will be provided if local ventilation required, emergency BA and rescue harnesses will be provided. Rescue equipment including lifting equipment, resuscitation facilities safety harnesses lines and harnesses will be provided. A communication system with those in the confined space will be established. Air will not be sweetened with pure oxygen. Precautions for safe use of any plant or heavier-than air gases in the confined space must be established before entry. Necessary PPE and hygiene facilities will be provided for those entering sewers. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> The management role is to decide on nature of the confined space and put a safe system into operation, including checking the above. Flood potential and isolation's must be checked. <p><u>Training:</u></p> <ul style="list-style-type: none"> Full training required for all entering and managing confined spaces. Rescue surface party to be trained, including in first aid and operation of testing equipment. All operatives must be certificated as trained and supervisory staff trained to the same standard. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> I.I.T... Staff & Subcontractors Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT			FIRE ON SITE		
SIGNIFICANT HAZARDS			Initial Risk Rating		Revised Risk Rating
1.	Hot work - welding, cutting		Med	To	Low
2.	Smoking near flammable materials		Med		Low
3.	Use of LPG heaters and cookers		Med		Low
4.	Electrical faults		Low		Low
5.	Arson		Med		Low
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. A fire watch will be implemented for all hot works. 2. Hot works permit system to be implemented and followed 1. Method statements and task specific Safe Plans of Action must be completed <p><u>Compliance with:</u></p> <p>British Standards: BS4363: 1991 - specification assemblies for electricity supplies to construction. BS2306: 1985, Part 3 - Code of Practice for selection, installation and maintenance of portable fire extinguishers. L.P.C. - Fire Prevention on Construction Sites</p> <p>Safety Health & Welfare at Work Act : 2005 Safety Health & Welfare at Work (Construction) Reg. : 2013 Safety Health & Welfare at Work (General Applications) Reg. : 2007</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • Site planning and safety rules will include fire detection provisions, supply and maintenance of fire- fighting equipment, control of hot-work, emergency procedures in the event of fire, control of smoking on site as needed, and prevention of the build-up of flammable materials such as in waste skips. Adequate means of escape and access for emergency vehicles will be allowed for during all stages of construction. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • Fire emergency exit routes will be established adequately signed and kept free of obstruction. • Security measures will be taken as practicable to restrict access to the site work areas, especially out of working hours. Smoking restrictions will be enforced, adequately notified to contractors and signed, where flammable materials are, or are likely to be, present. • Hot work and use of naked flame appliances will be controlled as necessary, including the use of permit to work systems as necessary. Temporary electrical systems comply with legal standards. Changes in electrical systems made necessary by contract conditions or practical requirements will be reviewed by a competent person to ensure that necessary precautions have been taken to accommodate changes, by way of design review where necessary and the provision of adequate fire arrangements. Temporary electrical systems will conform to legal standards. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • An emergency fire and evacuation procedure will be produced for every contract, which will be incorporated into the Project Safety Plan and continuously reviewed and updated as required, and practised. Personnel with Fire Fighting and First Aid Training will be identified in the Project Safety Plan. Exit routes will be clear of obstructions. Hot work will be strictly controlled, and work areas inspected on completion of work for potential fire hazards. Quantities of highly flammable liquids and LPG within work areas will be restricted and suitable storage facilities provided. Records will be maintained of routine fire inspections and the maintenance and testing of firefighting equipment. <p><u>Training:</u></p> <ul style="list-style-type: none"> • All site operatives will be trained on fire and evacuation procedures on induction training. Operatives using highly flammable materials or carrying out hot work will be trained in appropriate fire prevention measures. Site management will be aware of the requirements of the above standards and regulations. • Persons identified in the Project Safety Plan as Fire-Fighters and First Aid Persons will be suitably trained to discharge their duties. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T... Staff & Subcontractors Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF PORTABLE ELECTRICAL EQUIPMENT			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Electrocution	Med	To	Low	
2.	Fire	Med		Low	
3.	Damage to Equipment	Med		Low	
4.	Personal injury	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. All equipment should be tested and tagged (P.A.T.) portable appliance tested 2. The appropriate personal protective equipment must be used at all times 3. Only Competent persons to use the plant and equipment <p><u>Compliance with:</u></p> <p>S.H.W.W. Act 2005 S.H.W.W. (General Applications) Regulations 2007 S.H.W.W. (Construction) Regulations : 2013</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • All portable electrical equipment will be identified individually and is subject to planned maintenance and P.A.T. testing. Equipment supplied to it will be fit for its purpose with regard to voltage, power and environmental conditions. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • All equipment found to defective will be switched off and reported immediately. Visual inspection of equipment will be carried out before use. Leads and extension cables to be routed so as to minimise the likelihood of damage and trip hazards. • Damaged lamps on festoon leads will be replaced, and only moulded socket holders will be used on sites. • Only equipment operating at 110 volts or less will be permitted on site; higher voltages must be authorised in writing by management prior to use. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • Sub-contractors will be made aware of the above policy concerning use of electrical equipment. • Management are responsible for ensuring that attention is paid to site electrical requirements, including arrangements for design, testing and installation of circuits and their protection by fuses, residual current devices or similar. The use of electrical equipment will be monitored to ensure safe use. Management will ensure that only trained and competent persons test, repair and maintain portable electrical equipment. <p><u>Training:</u></p> <ul style="list-style-type: none"> • Operatives will be trained in the precautions and safe use of portable electrical equipment. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T... Staff & Subcontractors • Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF DISC CUTTERS & ABRASIVE WHEELS			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Bursting of abrasive wheel or disc	Med	To	Low	
2.	Contact with wheel or disc	High		Low	
3.	Clothing entanglement with moving parts	High		Low	
4.	Eye injury from flying particles	High		Low	
5.	Inhalation of dust	Med		Low	
6.	Exposure to hazardous noise levels	High		Low	
<u>ACTIONS TO REDUCE THE RISKS:</u> <ol style="list-style-type: none"> All equipment should be tested and tagged (P.A.T.) portable appliance tested The appropriate personal protective equipment must be used at all times(Full Face Visor & Goggles / Ear Defenders) Only trained and competent persons to operate the plant and machinery <p><u>Compliance with:</u> Safety in Industry (Abrasive Wheels) Regulations : 1982 S.H.W.W. Act : 2005 S.H.W.W. (General Applications) Regulations : 2007 S.H.W.W. (Construction) Regulation : 2013 (3rd. Sch.) Factories Act (No. 10 of 1955) : 1955 Manufactures Operating Instructions</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> Sufficient operatives trained to change abrasive wheels and discs will be available at the workplace. The correct wheels for the type of machine, speed and material to be cut will be ordered and supplied. Abrasive wheel machines are subject to the planned maintenance programme. Special permit to work clearance will be obtained before using the machines in potentially explosive or flammable areas. <p><u>Physical:</u></p> <ul style="list-style-type: none"> An assessment of PPE requirements will be carried out before use of an abrasive wheel is authorised; this will include hearing, eye, head and foot protection as appropriate for the work and the machine. PPE will be worn as directed. Loose clothing and ties will not be worn by operators. Disc cutters will only be used when standing on a firm, level base. Operators will ensure that all persons are kept away from areas where sparks or dusts are directed. Equipment and discs/wheels will be visually checked for damage before use by operators, ensuring operating speed is indicated. Users will not use undue pressure, and will use the right disc/wheel. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> Details of operatives trained to the Schedule to the Regulations and appointed to mount abrasive wheels will be entered into the Abrasive Wheels Register. A copy of the entry will be given to the operative, or other written authorization. Suitable storage facilities will be available at the workplace for spare discs and wheels. Equipment and spare wheels are to be checked for visible signs of damage before issue. Statutory notices required by the Abrasive Wheels Regulations 1982 will be displayed. <p><u>Training:</u></p> <ul style="list-style-type: none"> All personnel changing abrasive wheels or cutting discs will be trained to the Schedule to the Regulations and appointed in writing by their employer. Proof of training and appointment will be required; this also applies to sub-contractors. Selection may be required of operatives who have experience of the work and are physically fit. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> I.I.T... Staff & Subcontractors Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF FORK LIFT TRUCKS			
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating		
1.	Fall of load from forks	High	To	Low	
2.	Overturning of fork lift	Med		Low	
3.	Unplanned lowering of forks (mech. failure)	Med		Low	
4.	Impaired driver vision	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> Only trained and competent persons to operate the plant and machinery Daily checks should be carried out on the equipment. Plan the lift using a Safe Plan of Action All loads must be secured on the forks Use a spotter or banks man when required <p><u>Compliance with:</u></p> <p>S.H.W.W. : 2005 S.H.W.W. Work (Construction) Regulation : 2013 S.H.W.W. Work (Gen Applications) Reg : 2007 Safety in Industry Act : 1980 Code of Practice for rider operated Lift Trucks (H.S.A.)</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> Operating area proposed is to be checked in advance for suitability. Planned maintenance programme applies to fork lift trucks. Where applicable, raising and lowering chains to be checked for valid test certificate. Type of fork lift to be checked to ensure suitability for loads to be moved and ground conditions. <p><u>Physical:</u></p> <ul style="list-style-type: none"> Fork lift trucks are not to be overloaded in excess of manufacturer's recommendations. Passengers must not be carried unless additional seat is fitted. Fork lift trucks are not to be left unattended with engines running or forks raised. Palletised loads must be checked for security before carriage. Daily driver checks must include brake testing. Vehicles must not be driven at excessive speeds; only in accordance with workplace conditions. At blind corners, signs and audio-visual warnings will be considered. In workshop and stores, warning signs will be displayed, and operating areas and overhead obstructions painted to highlight hazards. Extra care must be taken when working on slopes, especially when crossing the gradient. A banks man is to be used where driver's vision is impaired or operating in congested areas. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> Drivers must be assessed as competent. Drivers must be over 18 years old. Vehicles must be checked by drivers before use and secured afterwards. Management must ensure speed restrictions are enforced, and monitor use on sloping ground. <p><u>Training:</u></p> <ul style="list-style-type: none"> Specific driver training is required, unless assessed as competent. Fork lift truck driving by unassisted/untrained operatives is not permitted; this also applies to sub-contractors and the self employed. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> I.I.T.Staff & Subcontractors Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		WORK IN OCCUPIED PREMISES			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Electric shock/burns	Med	To	Low	
2.	Fire	Med		Low	
3.	Falling from heights	Med		Low	
4.	Injuries to third parties – falls	Med		Low	
5.	Injuries to third parties - falling objects	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. Segregate all work areas to remove the hazard of injury to the occupants. 2. Use the clients or the I.I.T. “Permit to Work” system 3. Post safety signage in all work areas 4. All works will have to be agreed with the client. Appropriate safety statements and method statements must be in place and agreed prior to any work commencing in an occupied premises 5. Complete task specific Safe Plan of Action for the works being undertaken <p><u>Compliance with:</u></p> <p>S.H.W.W. Act : 2005</p> <p>S.H.W.W. (General Applications) : 2007</p> <p>S.H.W.W. (Construction) Regulation : 2013</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • Will include exchange of information with owner/occupier to ensure full reciprocal knowledge of existing hazards, demarcation of areas of responsibility and work hazards. Access equipment will be provided to ensure maximum safety of workers and occupants. Details of existing services will be obtained before the start of works. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • Physical barriers and notices will be installed to isolate work from occupants and members of the public. Fire exit routes will be controlled and extinguishers or alternate routes will be clearly signed. Hot work will be controlled and extinguishers will be on hand. Where work at height is to be done, debris netting, fans or other suitable measures to protect the public will be installed. Flammable and hazardous materials will be correctly controlled and stored. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • Supervisors will monitor to include initial checks to ensure safe systems of work are in place before work begins, and that areas are left safe at the end of each work period. Regular liaison will take place with occupants to co-ordinate work and eliminate hazards to them. <p><u>Training:</u></p> <ul style="list-style-type: none"> • Induction training will include any hazards and necessary precautions required for the workplace. Operative training will include safe systems at work and precautions designed to prevent injury to third parties. Supervisory management will be trained in site safety supervision <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T... Staff & Subcontractors • Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		USING MOBILE ALUMINIUM ALLOY SCAFFOLD TOWERS			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Falls of Persons from the scaffold	Med	To	Low	
2.	Falls of Materials from the scaffold	Med		Low	
3.	Collapse of the scaffold tower	Med		Low	
4.	Overturning of the scaffold tower	Med		Low	

ACTIONS TO REDUCE THE RISKS:

- Only C.S.C.S. holders to erect, alter or dismantle any aluminium scaffold
- No items are to be stored on the scaffold platform.
- Out riggers to be used and per the manufacturers guidelines.
- Post safety signage and segregate the work area where possible
- A task specific Safe Plan of Action must be completed for the works

Compliance with:

BS 1139 Pt. 3	:	1994 (HD1004)
Safety Health & Welfare at Work (General Applications) Regulations.	:	:2007
Safety Health & Welfare at Work (Construction) Regulations	:	2013
A.C.O.P. for Access and Workplace Scaffolding	:	1 st June 1999
S.H.W.W. Act 05	:	2005

PASMA operators Code of Practice. / HSE: C.I.S. NO. 10 Rev 4

Planning:

- Only authorised personnel will erect, modify or dismantle scaffolding towers.
- Towers should not be specified for use in the vicinity of overhead power lines.
- Specification for use of tower scaffolds will take into account the site ground conditions expected, height restrictions and obstructions.
- Work will be tendered for taking into account relevant standards.

Physical:

- Towers will be erected by trained personnel in accordance with relevant standards and manufacturer's instructions. Ladder access should be internal and fixed to the narrowest side. Maximum height to base ratios will not be exceeded 3.5:1 inside use and 3:1 external use without ties. Ties will be used in exposed or windy conditions. All tower platforms will be fully boarded and fitted with toe boards and guardrails. Wheels will be locked when the tower is in use. Personnel and materials will be removed before a tower is moved. Manufacturer's advice on maximum loadings will be adhered to.

Managerial/Supervisory:

- All scaffolding will be inspected on handover to or from other contractors. After alteration or adverse weather conditions scaffolds must be inspected by management. Towers must be inspected every seven days and the results entered into Form GA3. All scaffold inspections will be carried out by a competent person.
- Scaffolds will be checked regularly to ensure their correct use and that unauthorised adaptations have not been made.

Training:

- Persons erecting scaffolding must be adequately trained. Training may be provided by manufacturers, hirers or internally but some proof should be obtained.
- Inspections of scaffolding will be carried out only by those trained as per PASMA or C.S.C.S. and competent to do so.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractor

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF STEP LADDERS & PODIUM STEPS			
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating		
1.	Falls of Persons from step ladders	Med		Low	
2.	Stepladder overbalancing	Med	To	Low	
3.	Incorrect use of the ladder	Med		Low	

ACTIVITY COVERED BY THIS ASSESSMENT			LIFTING OPERATIONS USING MOBILE CRANE			
SIGNIFICANT HAZARDS			Initial Risk Rating	Revised Risk Rating		
1.	Unplanned release or dropping of load		High			
2.	Overturning of crane		Med	To	Med	
3.	Persons crushed between load and fixture or vehicle		High		Low	
4.	Striking by falling objects		High		Low	
5.	Persons trapped between fixture & holding part of crane		High		Low	
6.	Striking or arcing from overhead power cable		Med		Low	
7.	Damage to equipment or property		Med		Low	
Safety Health & Welfare at Work Act			2005			
Safety Health & Welfare at Work (General Applications) Regulations			2007			
Safety Health & Welfare at Work (Construction) Regulations			2013			
N.I.S.O. - Safe Use of Ladders : C.S.S. 5						
Planning:						
<u>All other means of access equipment must be considered before selecting ladder. Working at heights R/A required before use.</u>						
<ul style="list-style-type: none"> Step ladders will be checked to ensure correct length, type and condition before use. Step ladders are subject to a planned maintenance programme. Step ladder work is to be restricted to that which ensures the stability of the step ladder is maintained throughout. 						
<u>Physical:</u>						
<ul style="list-style-type: none"> The base for the step ladder must be firm and level. Step ladders must be placed at right angles to the work to avoid side –loading. The top step must not be used for working unless it has been specifically designed for this purpose. In all other cases the user's hip should be below the level of the top step. Over- reaching must be avoided. 						
<u>Managerial/Supervisory:</u>						
<ul style="list-style-type: none"> Supervisors must check step ladders before use to ensure they are sound. Damaged step ladders will be broken up or removed from the workplace immediately. Step ladders must be used fully open, with opening restraint cords taut. Step ladders must be sufficient length to enable the operative to reach work being undertaken without risk of overbalancing. Step ladders must not be used adjacent to, or in vicinity of edges or voids where guardrails or other fall protection measures may be compromised. Step ladders should not be used as means of access to roof void/loft hatched because of the risk over overturning. 						
<u>Training:</u>						
<ul style="list-style-type: none"> All operatives must be trained in the safe use of step ladders and specifically of the risk of falling as a result of inappropriate or misuse. 						
<u>Others affected by the works:</u>						
<ul style="list-style-type: none"> I.I.T... Staff & Subcontractors Other Contractors 						

ACTIONS TO REDUCE THE RISKS:

1. A separate method statement, risk assessment and safe plan of action will be required for all mobile crane lifts.
2. Competent persons to sling all loads.
3. Segregate all lift areas below
4. Constant communication required between the crane driver and the rigger at all times
5. Use the correct P.P.E. for the task
6. Post appropriate safety signage

Compliance with:

S.H.W.W. Act	:	2005
Safety Health & Welfare at Work (General Applications) Regs.	:	2007
Safety Health & Welfare at Work (Construction) Regulations	:	2013
H.S.E. (UK) Construction Information Sheet 19 - Safe Use of Mobile Cranes On Construction Sites.		
BS: 7121-1 : - Safe Use of Cranes	:	2006
FAS Construction Skills Certification for Mobile Crane.		
ACOP: Safe use of cranes in construction IS. 360	:	2004

Planning:

- All lifting operations will be under the control of an appointed person; where contracted, the contract will require the work "will be carried out in accordance with BS7121 Part 1 under the control of a person nominated by the contractor". Planning will consider the weight of the load, radius of lift, overhead clearance, ground conditions, positioning of the crane and lifting equipment required. Relevant test certificates or copies will be kept available for inspection, and be present before work starts. Sufficient trained banks men/slingers will be available.

Physical:

- Cranes will be positioned on firm ground with stabilisers extended. No person will enter the crane operating area without permission, and loads will not be swung over personnel, site huts, buildings or public areas.
- Lifting equipment will be selected considering the weight and stability of the load.
- Guide ropes will be used on large loads to guide and steady the lift.
- All personnel involved with lifting operations will wear safety helmets, gloves and safety footwear.
- Telephone/radio communication, or the system of hand signals specified in BS7121 will be used between the driver and the slingers/banks men.
- The table of Safe Working Loads for various radii will be clearly visible to the driver. Alarm audible signals will be functioning correctly at all times when the crane is in use.
- Safety helmets will be worn by all those within the swinging radius of the crane.

Managerial/Supervisory:

- Manufacturer's information on weight, centre of gravity and slinging arrangements for the load will be obtained in advance where practicable. Lifting operations will be under control of an appointed person. Banks men will be used when the driver's vision of the load is obstructed. Wind conditions will be monitored and work stopped if the stability of the load is affected. The area within the arc of operations will be cleared of personnel, and personnel will not be allowed to stand beneath a suspended load. All the equipment used will be in date for servicing and statutory inspection.

Training:

- Crane Drivers will be trained to appropriate C.S.C.S. Standard or equivalent.
- Banks men will be trained to appropriate C.S.C.S. Standard or equivalent.

Others affected by the works:

- I.I.T. Staff & Subcontractors
- Other Contractors

ACTIVITY COVERED BY THIS ASSESSMENT			SLINGING OF LOADS			
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating			
1.	Unplanned release or dropping of load		Med	To		
2.	Striking by falling objects		High		Low	
3.	Trapping between fixture and load		High		Low	
4.	Damage to equipment or property		High		Low	
5.	Striking / arcing of overhead cables		Med		Low	
			Med		Low	

<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. Competent persons to sling all loads. 2. Segregate all lift areas below 3. Constant communication required between the crane driver and the rigger at all times 4. Use the correct P.P.E. for the task 5. Post appropriate safety signage <p><u>Compliance with:</u></p> <p>Safety Health & Welfare at Work Act 2005 Safety Health & Welfare at Work (General Applications) Regs.2007 Safety Health & Welfare at Work (Construction) Regulations 2013 ACOP – safe use of cranes in construction i.e. 360° 2004</p> <p><u>Planning:</u></p> <ul style="list-style-type: none"> • Correct lifting equipment will be supplied, compatible with the load. Operations will be planned to ensure maximum safety of personnel and property. Lifting equipment is subject to the planned maintenance programme. Relevant test certificates or copies will be available for inspection on site. Sufficient numbers of trained personnel will be available on site before lifting begins. <p><u>Physical:</u></p> <ul style="list-style-type: none"> • No persons are allowed to stand or work within lifting appliance operating radius without the operator's permission. Loads must not be slewed over personnel, vehicle cabins or huts. • A banks man us to be used where driver's vision is impaired or operating in congested areas. • The lifting appliance will be on a firm, level base. • The attachments and equipment will be selected considering the weight and stability of the load. Slings will not be placed on sharp edges. Tail ropes will be used on large loads to steady and guide them. • All personnel associated with slinging will wear safety helmets, gloves and safety footwear. <p><u>Managerial/Supervisory:</u></p> <ul style="list-style-type: none"> • Manufacturer's information on load weight, centre of gravity and slinging arrangements will be obtained in advance where practicable. Lifting will be supervised to ensure the stability of the appliance and the load, by trained C.S.C.S Slingers. • Banks-men will be used when the driver/operator's view is obstructed. • Work will be stopped when weather conditions prevent safety operations. • The area within the arc of operation is to be cleared of personnel before slinging begins. • No person is permitted to stand beneath a suspended load. <p><u>Training:</u></p> <ul style="list-style-type: none"> • Crane drivers and operators of lifting appliances will be trained to C.S.C.S. Standard or equivalent. • Banks-men and supervisors will be trained in lifting operations to C.S.C.S. Standard or equivalent. • Training requirements apply to sub-contractor's and the self employed. <p><u>Others affected by the works:</u></p> <ul style="list-style-type: none"> • I.I.T Staff & Subcontractors • Other Contractors 					

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF HAND TOOLS			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1.	Eye Injury	Med	To	Low	
2.	Injury to hands, feet and body	Med		Low	
3.	Using the wrong tool for the task	Med		Low	
<p><u>ACTIONS TO REDUCE THE RISKS:</u></p> <ol style="list-style-type: none"> 1. Use the correct tool for the task. 2. Ensure all tools are in good condition and fit for the task. 					

3. Wear the appropriate personal protective equipment

Compliance with:

Safety Health & Welfare at Work Act	:	2005
Safety Health & Welfare at Work (General Applications) Regs.	:	2007
Safety Health & Welfare at Work (Construction) Regulations	:	2013
Hand Held Motor Operated Tools (Gen. Spec.)	:	IS/HD 400 Pt. 1
Hand Held Motor Operated Tools (Circular Saws)	:	IS/HD 400 Pt. 2, Sec. E
Hand Held Motor Operated Tools (Particular Spec.)	:	IS/HD 400 Pt. 2
Code of Practice, Hand Tools, Portable Power Driven Tools	:	I.L.O. - Geneva

Planning:

- Tools provided by the employer must be assessed to ensure that they are fit for the purpose, the environment in which they are used and in good working condition.
- Tools are required to be suitable for the purpose for which they will be used.

Physical:

- Eye protection is to be provided and used whenever work is done using cold chisels, drills, grinders or other tools where there is a risk of flying particles or pieces of the tool breaking off.
- Open bladed knives, screwdrivers and other sharp tools are to be carried and used so as not to cause injury to the user or others.
- Non-ferrous (spark-free) tools are to be used in flammable atmospheres.
- Insulated tools must be used where there is a possibility of live electrical work.

Managerial/Supervisory:

- Management will monitor hand tools which can deteriorate with use, and to ensure the correct tools are being used properly.
- Specific checks will be made as follows:
- Chisels for mushroom heads
- Hammer and file handles for deterioration and exposed tangs.
- Open-ended spanners for splayed jaws.

Training:

- Operatives are to be instructed in the correct method of use and in maintenance requirements at induction if not part of craft.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractors

ACTIVITY COVERED BY THIS ASSESSMENT		WORK NEAR OR UNDER OVERHEAD POWER LINES				
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating		
1.	Contact by plant or vehicles			Med	To	Low
2.	Contact by long metal objects			Med		Low
3.	Arcing over because of proximity of plant etc.			Med		Low

ACTIONS TO REDUCE THE RISKS:

1. A separate method statement, risk assessment and safe plan of action will be required for all such activities.
2. All overhead lines will have “goalposts” erected under them to ensure operations stay well below the live lines.
3. All such works must be agreed with the client and possibly the E.S.B. where applicable

Planning:

- Pre-contract liaison with Electricity Supply Board to agree diversions or safe clearance distances, and any other steps needed. Work which will require plant to be in vicinity of lines to be identified.

Physical:

- Barriers and solid goalposts to be erected as required, and as agreed with Electricity Supply Board, also to comply with the E.S.B. Guidance Document No. 9803202.
- Appropriate signs will be positioned.
- Operations involving movement of long metal objects (such as ladders and scaffold tubing) in the vicinity of overhead lines are to be subject to specific authorization and supervision.

Managerial/Supervisory:

- Movements of visiting vehicles and plant are to be controlled.
- Barriers and warning signs will be continuously monitored to ensure that they remain intact and in place.
- All crane operations in the vicinity of overhead lines must be supervised continuously, also to all crane movements.
- Permit-to-work system may be required for some tasks beneath lines.
- Instructions will be given for briefing drivers on the hazards.

Training:

- Operatives and sub-contractors will be briefed on the hazards and the requirements of the E.S.B. Guidance Document.
- Drivers of visiting vehicles will be briefed on the hazards and the crossing points.

Others affected by the works:

- I.I.T. Staff & Subcontractors
- Other Contractors



ACTIVITY COVERED BY THIS ASSESSMENT		WORK IN THE VICINITY OF UNDERGROUND SERVICES			
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating		
1.	Contact with water, sewage, electricity, gas supplies, video, data or	Med	To	Low	
2.	telephone lines				
3.	Flooding from water services – Live Sprinkler mains	Med		Low	
4.	Contact with sewage	Med		Low	
5.	Contact with live gas mains	Med		Low	

ACTIONS TO REDUCE THE RISKS:

1. A separate method statement, risk assessment and safe plan of action will be required for all such activities.
2. Ground testing may be required to assess the potential hazards. C.A.T. scan must be completed prior to any dig taking place.
3. Hand dig around all live services
4. Consult local authority drawings or as build drawings

Compliance with:

S.I. NO. 171	:	Rules of the Road : Guidelines for Traffic Control at Rural Roadwork's	
	:	Guidelines for Signposting Roadwork's in Urban Areas	
S.I. No. 481	:	S.H.W.W. (Construction) Regs. :	2013
S.I. No. 299	:	S.H.W.W. (Gen. Application) Regs. :	2007
	:	S.H.W.W. Act :	2005

H.S.E. (U.K.) Guidance Booklet H.S. (G) 47 : Avoiding - danger from underground services

Planning:

- All work to be planned in advance, taking account of the above. Full details of underground services will be obtained in advance from the relevant authority, Television Relay Companies, Private Property Owners, Bord Gays, Telecom Emirian and Electricity Supply Boards.

Physical:

- Plans and cable location equipment will be available before work starts. Plans will not be assumed to be accurate, and location devices will be used in addition. Trial holes will be dug, using hand digging to confirm locations, taking account of physical indications such as junction boxes and manholes. The lines of services will be marked, using paint, wooden pegs, etc. All services will be assumed to be live until proven otherwise. Services crossing excavations will be supported.
- Services in concrete will be isolated before breaking operations.

Managerial/Supervisory:

- Management will ensure that services are located and marked before further work begins.
- Full consultation will be held with relevant authorities to agree precautions will be carried out before work begins.
- All staff, machine operators and sub-contractors will be fully briefed before they begin work.
- All temporary services will be properly marked.

Training:

- Supervision will be trained in operation of cable locating equipment. Operatives locating services must be similarly trained.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractors

ACTIVITY COVERED BY THIS ASSESSMENT		USE OF ARC WELDING EQUIPMENT		
SIGNIFICANT HAZARDS		Initial Risk Rating	Revised Risk Rating	
1.	Fire	Med	to	Low
2.	Injury to eyes from arc and particles	Med		Low
3.	Inhalation of welding fumes			
4.	Burns to arms, hands	Med		Low

ACTIONS TO REDUCE THE RISKS:

1. Ensure a hot work permit and a fire watch is in place for all welding operations
2. Ensure operatives wear the correct and appropriate P.P.E. for the welding operation
3. Welding jackets, welding gloves and long sleeves must be worn when arc welding.
4. A task specific method statement, risk assessment and safe plan of action should be completed for all arc welding operations.

Compliance with:

Safety Health & Welfare at Work Act	:	2005
Safety Health & Welfare at Work (General Applications) Regs.	:	2007
Safety Health & Welfare at Work (Chemical Agents) Regs.	:	2001
European Communities (PPE) Reg.		1993
BOC/Safe from Welding Fumes		June 1992
H.S.E. (UK) Guidance Notes : Environmental Hygiene : E.H. 55		
H.S.E. (UK) Flame Cutting & Welding with compressed gases - C.S.S. No. 12		
S.H.W.W. Construction Regulations	:	2013

Planning:

- Pre-start planning will take into account:
- Location of work, fire safety/prevention needs materials to be worked, available ventilation, and other works in progress in the area, local site rules and statutory requirements. Permit to work system may apply.

Physical:

- Suitable screens and fire blankets will be readily available to protect flammable and persons from "Arc Eye" sparks and heat. Where ventilation is poor, local exhaust ventilation will be provided. Warning notices will be displayed. An insulated mat will be provided and used during welding. Operatives will check equipment at the start of shift and disconnect when not attended. Personal metal jewellery will be removed from hands and wrists of operators.
- PPE, such as gloves, boots, overalls, aprons, eye protection, will be provided and worn.

Managerial/Supervisory:

- All necessary fire prevention equipment, and fire extinguishers, will be checked in place prior to the commencement of work. Management's role is to check specifically that all required precautions are taken. No work will take place in areas where the presence of flammable or explosive substances is suspected without specific assessment. Fire sentries will be detailed where there is an assessed significant risk of fire or heat transfer to adjacent areas. A check of the work area will be carried out by management on completion of the shift or the work for any possibility of latent fire hazards, including smouldering.

Training:

- Operatives carrying out this work will have received extensive trade and safety training. Supervisors / managers will be trained in fire prevention, welding and electrical safety.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractors

ACTIVITY COVERED BY THIS ASSESSMENT		MANUAL HANDLING			
SIGNIFICANT HAZARDS		Initial Risk Rating		Revised Risk Rating	
1	Back Injury / Back Strain using incorrect lifting procedure Limb strains / Muscle pulls from pushing and pulling of loads Foot Injury – Load falling or being dropped Poor Housekeeping - Keep Access routes clear Not Planning the lift and the route Damage to property or items of equipment.	Med	to	Low	
2		Med		Low	
3		Med		Low	
4		Med		Low	
5		Med		Low	

ACTIONS TO REDUCE THE RISKS:

1. Use mechanical means where possible
2. Only trained and competent persons should attempt lifting operations.
3. Assess the load before lifting. Get help to lift (if required). If the load is too heavy or awkward to lift do not lift it.
4. Use an S.P.A to plan the steps required to carry out any lift safely.
5. Clean as you go policy to be implemented. Keep all floor areas free from debris and rubbish
6. Use the T.I.L.E. acronym for all lifts (Task, Individual, Load & Environment)

Compliance with:

Safety Health & Welfare at Work Act	:	2005
Safety Health & Welfare at Work (General Applications) Regulations	:	2007
Safety Health & Welfare at Work (Construction) Regulations	:	2013

Planning:

- **Manual Handling of Loads is covered in SHWW (General Application) Regulations 2007 Chapter 4 of Part 2**
- The lifting and moving of all loads must be planned by the site management and incorporated in project safety plan / statement, a method statement or task specific risk assessment c/w safe plan of action.
- Apply the principles of prevention

Physical:

- Assess the load and the risk. Avoid the need for manual handling reducing the risk
- Bend Knees, keep back straight, firm palm grip, lift smoothly with the legs, don't twist

Managerial/Supervisory:

- Supervisors must check the work area before use to ensure they are clear of debris.
- Managers must check that all on the project have received manual handling training and that the training is in date.
- Managers must also arrange retraining of any I.I.T... operative whose training has lapsed. This can be done by contacting the Training department in head office
- Ensure operatives are not lifting items that are excessively heavy for the individual. Suit the individual to the task and not the task to the individual.

Training:

- All operatives must be trained in the safe manual handling of loads. The training should take place every three years with refresher training yearly. All certificates must be in date before any operative carries out manual handling on any project.

Others affected by the works:

- I.I.T... Staff & Subcontractors
- Other Contractors

IRISH. INDUSTRIAL.TANKS LTD...

PART IV:

FORMS

FORM OF NOTICE OF ACCIDENT

APPROVED UNDER THE SAFETY, HEALTH AND WELFARE AT WORK (GENERAL APPLICATION) REGULATIONS 2007

DETAILS OF INJURED PERSON

Name:	Date of Birth		Sex:		Is the injured person:	
Address	Nationality:	Length of Service	Years	Months		Employed Full Time
					Employed Part Time	
	RSI Number	Date of Accident	Time of accident			Self-employed
						A Trainee

Occupation	Time of starting work:	Normal time of finishing work		A Family Member
EMPLOYER/SELF-EMPLOYED INFORMATION				A Member of Public
Name of business or company name: I.I.T...				
Address of Head Office (1):		Nature of Business:		
Address of establishment where injured person was based if, different from (1) above		Approximate no. employed at establishment:	Approximate total no. employed by business:	
If accident did not occur at the establishment address state where:				
TYPE OF WORK AND WORK ENVIRONMENT				
What type of work was the injured person doing at the time of the accident: (e.g. Iron founding, harvesting, work processing)				
Where was the injured person at the time of the accident? (E.g. inside buildings, underground, field, public road, shop etc.)				
Circumstances of the Accident (An "agent" may be another person, an animal, a substance, equipment or other item)				
Briefly describe what the injured person was doing at the time of the accident identifying the agent involved:				
Briefly describe the departure from normal, including the agent involved:				
Briefly describe the action leading to the injury including the agent which actually caused the accident				
Details of Injury:				

Indicate type of injury (tick one box only)

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Bruising, contusion | <input type="checkbox"/> Suffocation, asphyxiation | <input type="checkbox"/> Head, except eyes | <input type="checkbox"/> Hip joint, thigh, knee cap |
| <input type="checkbox"/> Concussion | <input type="checkbox"/> Gassing | <input type="checkbox"/> Eyes | <input type="checkbox"/> Knee joint, lower leg, ankle area |
| <input type="checkbox"/> Internal Injuries | <input type="checkbox"/> Drowning | <input type="checkbox"/> Neck | <input type="checkbox"/> Foot |
| <input type="checkbox"/> Open Wound | <input type="checkbox"/> Poisoning | <input type="checkbox"/> Back Spine | <input type="checkbox"/> Toes, one or more |
| <input type="checkbox"/> Abrasion, Graze | <input type="checkbox"/> Infection | <input type="checkbox"/> Chest | <input type="checkbox"/> Extensive parts of the body |
| <input type="checkbox"/> Amputation | <input type="checkbox"/> Burns, Scalds, Frostbite | <input type="checkbox"/> Abdomen | <input type="checkbox"/> Multiple Injuries |
| <input type="checkbox"/> Open Fracture (i.e. bone exposed) | <input type="checkbox"/> Effects of Radiation | <input type="checkbox"/> Shoulder, Upper Arm, Elbow | <input type="checkbox"/> Other |
| <input type="checkbox"/> Closed Fracture | <input type="checkbox"/> Electrical Injury | <input type="checkbox"/> Lower Arm, Wrist | |
| <input type="checkbox"/> Dislocation | <input type="checkbox"/> Injury not ascertained | <input type="checkbox"/> Hand | |
| <input type="checkbox"/> Sprain, Torn Ligaments | <input type="checkbox"/> Other | <input type="checkbox"/> Fingers, one or more | |

Consequences of the Accident

Fatal Date of resumption Year Month Day Anticipated absence 4-7 days ☐ 8-14 days ☐ More than 14 days ☐

Non-Fatal of work

Details of notified

Notified Employer/Self Employed Person in control of workplace Person providing training Other


ACCIDENT/INCIDENT REPORT FORM	
(A) Details of Injured Employee/Person reporting Near Miss Situation	
Name _____	Position _____

Address_____	Date of Birth_____
_____	Date of Employment_____

(B) Details of Accident / Near Miss	
Date_____	Location_____
Time_____	Witnesses_____
Describe What Happened_____	

What damage was caused / injury reported_____	
What kind of treatment was given (circle only one) No Treatment First Aid Medical Treatment Hospital Treatment Is it a lost time accident_____	By Whom_____
	By Whom_____
	Hospital Doctor_____
	How Many days lost_____
Signed – Injured Employee _____	Date_____
Signed – Management _____	Date_____
Signed Witness _____	Date_____

	<u>Method Statement for I.I.T.</u>			
Description of the Task/Activity:				
Project Name:		Project Ref:		
Site Address/ Location:		Start Date/Time:		
		Finish Date/Time:		
Personnel involved:	Name	Role/Trade		
Works Supervisor:		Role:		Tel:
Key Plant and Tools Required:				
Other Essential Equipment:				
Specific Identified Residual Hazards: (or refer to the task specific risk assessment(s))	Specific Risk Assessment			
Specific Staff Training Requirements:				
Sequence of Operations: (Specifying methods of working, tools, materials and equipment utilised)				

Method of Access and Egress to the work area:							
Required Personnel Protective Equip.:	Safety Boots	Hard Hats	Safety Gloves	Hearing Protection	Respiratory Protection	Eye Protection	Other:
Emergency Procedures:							
 First Aid Facilities:	Name of On-Site First Aider:						
	First Aid Box Location:						
	Location of Nearest Hospital:						
Other Information & Comments:							

All work will be undertaken by qualified competent persons with experience of the type of work described above, and in all cases in full accordance with safety procedures specified in the company's Health and Safety Policy.

Prepared by:

Position:

Date:

Reviewed by:

Position:

Date:

[illegible]

I.I.T. PERMIT TO WORK

DATE:	PERMIT TO WORK VALID FOR ONE SHIFT ONLY	Contract No:
AREA:		No of Men:
		Foreman:

Requested By:	Permit Originator
Contractor:	System Owner
Description of Work:	
Equipment to be used:	

Permit Required (Initial each answer)	Yes	No	N/A	Permit No
Excavation				
Confined Space				
Line Break				
Hot Work				
Lock Out and Tag				
Roof Access				
Plant Precautions	Yes	No	N/A	Comments
Work Area Inspected				
Means of Access Checked				
Barriers in Place				
Cautionary Notices Displayed				
Method Statement				
Personal Precautions	Yes	No	N/A	Comments
Standby Man				
Safety Belt and Lift Line to be Worn				
Canister Respirator / Fresh Air Self Contained breathing Apparatus to be used				
Goggles / Face Mask to be Worn				
Special Footwear / Protective Clothing to be worn				
Equipment	Yes	No	N/A	Comments
Auto Alarm Gas Monitor at Workface				
Resuscitation Equipment to be available				

Other Precautions to be taken:	
Valid this Date from to..... Signed: (Senior Authorised Person)	CLEARANCE: I declare that the works are complete, system / area left in a safe state and all personnel and materials removed. Signed: (Authorised Person) Date:
Recipient: Signed: (Authorised Person)	

HOT WORK PERMIT

A Hot Work Permit is required in any designated Hazardous area where flammable or combustible materials encountered and/or in any confined space and as specified within the Hot Works Permit Procedures.

Requested By: Good This Date Only:
From: To: Bldg. (area) Floor:
Equipment: Purpose:
.....

I certify that the required precautions, for which I am responsible, have been taken as indicated on this Permit and it is safe to complete this work.

Authorised Person:
I have been properly instructed to complete this Hot Work safely and understand my duties:

Craft:

.....
.....

.....

Fire Watch:

.....

Indicate with a (✓) those items required. The Permit work shall not commence until all precautions required are complete and the Permit signed.

- | | | |
|---------------------|----------------|----------------|
| 1. Sprinkler System | | |
| In Service | Out of Service | Not Applicable |
2. No Hot Work is permitted on equipment or in an area where flammable vapours, dusts etc. are present.
- | | |
|--|--------------------|
| A. Tanks, lines other equipment cleaned and purged: | |
| Yes | Not Necessary |
| B. Atmosphere tested for flammable vapours: (should be complete before starting or restarting work, and more frequently if Conditions in area are liable to change.) | |
| Tested By | %..... Time: |
| Tested By | %..... Time: |
- | | |
|---------------|-------------|
| Not Necessary | (Signature) |
|---------------|-------------|
- C. Confined Space Entry permit completed.
- | | |
|-----|---------------|
| Yes | Not Necessary |
|-----|---------------|
- D. Line breaking permit completed.
- | | |
|-----|---------------|
| Yes | Not Necessary |
|-----|---------------|
3. The following applicable precautions must be taken:
- | | |
|--|---------------|
| A. Hazardous work in area stopped: | |
| Yes | Not Necessary |
| B. Area swept clean and wet down, if appropriate. | |
| Yes | Not Necessary |
| C. All drummed flammable solvents and combustible materials moved 10m from work area: | |
| Yes | Not Necessary |
| D. All floor or wall openings adequately protected. | |
| Yes | Not Necessary |
| E. Standby men assigned to watch for dangerous sparks in area including above and below. | |
| Yes | Not Necessary |
| F. Fire extinguishing equipment available: | |
| Yes | Not Necessary |
| G. Work area roped off and access limited? | |
| Yes | Not Necessary |
4. Burning, welding or hot works equipment inspected and found in safe condition:
- | | |
|-----|---------------|
| Yes | Not Necessary |
|-----|---------------|
5. Area including floors above and below where exposed should be checked at least 30 minutes after work is completed
- Man Assigned:
- | | |
|-----|---------------|
| Yes | Not Necessary |
|-----|---------------|

SAFE PLAN of ACTION

- **Work Area:**
- **Job/Task:**
- **Date :**
- **Project:**
- **Project Number:**

Steps of Task	Hazard (How can we get hurt)	Safe Plan	Resources
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

Team Members' Signatures

The signature of the Site Manager confirms the completion of the hazard assessment and Safe Plan of Action by the crew.

Site foreman Signature: _____

Date_____

Instructions: 1. Write name of job or task in space provided. 2. Conduct walk-through survey of work area. 3. Write the steps of the task in a safe sequence. 4. List all possible hazards involved in each step and reaction to change. 5. In the Safe Plan column, state actions that will be taken to prevent the hazards or injury from reaction to change. 6. In Resources column, list equipment, tools, etc. needed to do the job. 8. Ask each team member, who helped develop and will use this SPA, to sign in spaces provided. 9. Review the SPA at the end of the task for improvements.

Work shall stop when conditions change, the job changes, or a deficiency in the plan is discovered, and the current SPA will be modified or a new SPA created

Review checklist while completing front page of SPA. Check all that apply.		
A new SPA is required if the job scope or work conditions change.		
Required Permits	Hazards	Safe Plan
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Overhead Utilities	<input type="checkbox"/> Power de-energization required <input type="checkbox"/> Insulation blankets required <input type="checkbox"/> Wire watcher required
<input type="checkbox"/> Critical Lift		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone marked
<input type="checkbox"/> Hot Work	<input type="checkbox"/> Crane or other Lifting Equipment	<input type="checkbox"/> Signalman assigned <input type="checkbox"/> Tag lines in use <input type="checkbox"/> Area around crane barricaded
<input type="checkbox"/> Lock Out/Tag Out		<input type="checkbox"/> Lifting equipment inspected <input type="checkbox"/> Personnel protected from overhead load
<input type="checkbox"/> Soil Disturbance (Over 12")	<input type="checkbox"/> Underground Utilities	<input type="checkbox"/> Reviewed as-builds <input type="checkbox"/> Subsurface surveys <input type="checkbox"/> Received dig permit
<input type="checkbox"/> Utility Clearance		<input type="checkbox"/> Required clearance distance = _____ Ft. <input type="checkbox"/> Safe work zone Marked
Required PPE	<input type="checkbox"/> Electrical	<input type="checkbox"/> Lock Out/Tag Out/Try Out <input type="checkbox"/> Permit required? <input type="checkbox"/> Confirm that equipment is de-energized
<input type="checkbox"/> Hard Hat, Class C		<input type="checkbox"/> Reviewed electrical safety procedures
<input type="checkbox"/> Hard Hat, Class E (<i>Elect. Protect</i>)	<input type="checkbox"/> Excavations	<input type="checkbox"/> Permits <input type="checkbox"/> Inspected prior to entering <input type="checkbox"/> Proper sloping/shoring
<input type="checkbox"/> Ear Plugs/Ear Muffs		<input type="checkbox"/> Barricades provided <input type="checkbox"/> Access/egress provided <input type="checkbox"/> Protection from accumulated water
Eye Protection:	<input type="checkbox"/> Fire Hazard	<input type="checkbox"/> Hot Work Permit <input type="checkbox"/> Fire Extinguishers <input type="checkbox"/> Fire watch
<input type="checkbox"/> Safety Glasses		<input type="checkbox"/> Adjacent area protected <input type="checkbox"/> Unnecessary flammable material removed
<input type="checkbox"/> Face Shield	<input type="checkbox"/> Vehicular Traffic or Heavy Equipment	<input type="checkbox"/> Traffic Barricades <input type="checkbox"/> Cones <input type="checkbox"/> Signs <input type="checkbox"/> Flagmen <input type="checkbox"/> Lane closure
<input type="checkbox"/> Chemical Goggles		<input type="checkbox"/> Communication with equipment operator
<input type="checkbox"/> Welding Hood	<input type="checkbox"/> Noise >85 dB	Hearing protection is required: <input type="checkbox"/> Ear plugs <input type="checkbox"/> Ear Muffs <input type="checkbox"/> Both
Hand Protection:	<input type="checkbox"/> Hand & Power Tools:	<input type="checkbox"/> Inspect general cond. <input type="checkbox"/> GFCI in use <input type="checkbox"/> Identified PPE required for each tool
<input type="checkbox"/> Cut Resistant Gloves		<input type="checkbox"/> Reviewed safety requirements in operators manual(s) <input type="checkbox"/> Guarding OK
<input type="checkbox"/> Welders Gloves	<input type="checkbox"/> Hand Hazards	List sharp tools, material, equipment: _____
<input type="checkbox"/> Nitro Gloves		<input type="checkbox"/> PPE gloves, etc. <input type="checkbox"/> Protected sharp edges as necessary
<input type="checkbox"/> Surgical Gloves	<input type="checkbox"/> Manual Lifting to _____ #lbs.	<input type="checkbox"/> Reviewed proper lifting tech. <input type="checkbox"/> Identified material requiring lifting equipment
<input type="checkbox"/> Rubber Gloves		<input type="checkbox"/> Hand protection required <input type="checkbox"/> Back support belts
<input type="checkbox"/> Elect. Insulated Gloves	<input type="checkbox"/> Ladders	<input type="checkbox"/> Inspect general cond. before use <input type="checkbox"/> Ladder inspected within last quarter
<input type="checkbox"/> Arm Sleeves		<input type="checkbox"/> Ladder tied off or held <input type="checkbox"/> Proper angle and placement <input type="checkbox"/> Reviewed ladder safety
Foot Protection:	<input type="checkbox"/> Scaffolds	<input type="checkbox"/> Inspect general condition before use <input type="checkbox"/> Tags in place <input type="checkbox"/> Properly secured
<input type="checkbox"/> Sturdy Work Boots		<input type="checkbox"/> Toe boards used <input type="checkbox"/> Footings adequate <input type="checkbox"/> Materials properly stored on scaffold
<input type="checkbox"/> Safety Toe Boots	<input type="checkbox"/> Slips, Trips Falls	<input type="checkbox"/> Inspect for trip hazards <input type="checkbox"/> Hazards marked <input type="checkbox"/> Tools & material properly stored
<input type="checkbox"/> Rubber Boots		<input type="checkbox"/> Extension cords properly secured <input type="checkbox"/> Work zone free of debris
<input type="checkbox"/> Rubber Boot Covers	<input type="checkbox"/> Pinch Points	List potential pinch points: _____
<input type="checkbox"/> Dielectric Footwear		<input type="checkbox"/> Working near operating equipment <input type="checkbox"/> Hand/Body positioning
Respiratory Protection:	<input type="checkbox"/> Working w/ Chemicals	<input type="checkbox"/> List specific chemicals involved and list hazards and precaution on front side.
<input type="checkbox"/> Dust Mask		<input type="checkbox"/> Reviewed MSDS <input type="checkbox"/> Exposure Monitoring required <input type="checkbox"/> Have proper containers and labels.
<input type="checkbox"/> Air Purifying Respirator	<input type="checkbox"/> Asbestos or Lead Paint Potential	<input type="checkbox"/> Identified proper PPE (respirators, clothing, gloves, etc.)
<input type="checkbox"/> Supplied Air Respirator		<input type="checkbox"/> Areas to be worked may contain asbestos or lead paint <input type="checkbox"/> Asbestos controls incorporated
<input type="checkbox"/> SCBA	<input type="checkbox"/> Heat Stress Potential	<input type="checkbox"/> Lead based point controls in place <input type="checkbox"/> Exposure monitoring conducted.
<input type="checkbox"/> Emergency Escape Respirator		<input type="checkbox"/> Heat stress monitoring (>85°) <input type="checkbox"/> Liquids available <input type="checkbox"/> Cool down periods
Special Clothing:	<input type="checkbox"/> Cold Stress Potential	<input type="checkbox"/> Sun Screen <input type="checkbox"/> Reviewed Heat Stress symptoms
<input type="checkbox"/> Tyvek ®		<input type="checkbox"/> Proper clothing (i.e., gloves, coat, coveralls) <input type="checkbox"/> Wind chill <32°
<input type="checkbox"/> Poly Coated Tyvek ®	<input type="checkbox"/> Environmental	<input type="checkbox"/> Reviewed Cold Stress symptoms <input type="checkbox"/> Warm up periods
<input type="checkbox"/> Fire Resistant Coveralls		<input type="checkbox"/> Air emissions <input type="checkbox"/> Water discharge <input type="checkbox"/> Hazardous wastes <input type="checkbox"/> Other wastes
<input type="checkbox"/> Rain Suit	<input type="checkbox"/> Natural or Site Hazards	<input type="checkbox"/> Pollution prevention <input type="checkbox"/> Waste minimization
<input type="checkbox"/> Safety Vest		<input type="checkbox"/> Weather <input type="checkbox"/> Terrain <input type="checkbox"/> Adjacent operations or processes <input type="checkbox"/> Biological hazards
	<input type="checkbox"/> Adjacent Work/Processes	<input type="checkbox"/> Animals/reptiles/insects hazards
		<input type="checkbox"/> Notified them of our present's <input type="checkbox"/> Other workers adjacent, above, or below.
Fall Protection:	<input type="checkbox"/> Barricades/covers	<input type="checkbox"/> Coordinated with adjacent supervisor/customer/operator <input type="checkbox"/> Need barriers between.
<input type="checkbox"/> Harness		<input type="checkbox"/> Caution barricade tape required <input type="checkbox"/> Danger barricade tape required <input type="checkbox"/> Rigid railing required
<input type="checkbox"/> Double Lanyard Required		<input type="checkbox"/> Covers over opening <input type="checkbox"/> Warning signs required
<input type="checkbox"/> Anchorage Point Available	Additional Information:	
<input type="checkbox"/> Additional Anchorage Connector Needed e.g. Cross Arm Strap, etc.		
<input type="checkbox"/> Retractable Device Needed		
<input type="checkbox"/> Horizontal Life Line System Red's.		
<input type="checkbox"/> Fall Clearance Distance Adequate		
<input type="checkbox"/> Fall Rescue/Retrieval Plan Set Up		

Reviews

Rev 0.	10 th January 2014
Rev. 1.	12 th January 2015
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