INSTRUCTIONS for CONTRACTORS

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APPENDIX 1
1. HAZARDOUS SUBSTANCES

1.0 Purpose

The purpose of this work practice is to detail the minimum Health Safety and Environmental instructions that must be transmitted to contractors during the bidding stage of the contract.

2.0 Scope
Directly applies to contracts that are managed by the Employer.
This document should also be used to advice clients of any gaps in HSE Management.

3.0 Responsibilities
It is the responsibility of the Manager Construction to keep this work practice updated in line with best practices and legal requirements.
It is the responsibility of the Resident Construction Manager assisted by the worksite HSE Manager to ensure that contractors receive and understand the contents section of this work practice prior to bidding work. This information should form part of the contract's contractual requirements.
The Manager Construction is responsible for auditing the implementation of this WP.

1. TERMS USED

1.1 The Owner: INEOS Feluy
1.2 The Employer:
1.3 The Contractor: Contractor or his Subcontractors engaged to carry out work on the contract
1.4 The contract:
1.5 Approved: Means approved by the Employer or the Owner.
1.6 Shall: Action which must be carried out.

2. INTRODUCTION

2.1 These instructions are issued to Contractors carrying out the work on the contract. It outlines the health, safety & environmental rules and procedures which the Contractor is required to follow when undertaking work.
2.2 The Instructions are produced primarily for the use of the Contractors, management and supervisory staff who are required to ensure that the Construction Health, Safety & Environmental Plan, site rules and procedures are brought to the notice of all the Contractor's employees and that such rules and procedures are strictly followed.
2.3 If there is any doubt or misunderstanding about the contents of the booklet the Contractor should consult the Employer's Site HSE Manager for clarification. Where the Contractor requires special precautions or more detailed guidance on HSE procedures he should discuss this with the Employer's discipline supervisors, prior to commencement of his work.

THE RESPONSIBILITY FOR ENSURING THAT CONTRACTORS EMPLOYEES UNDERSTAND AND COMPLY WITH THE RELEVANT HSE PROCEDURES RESTS WITH THE CONTRACTOR HIMSELF

3. LEGAL OBLIGATIONS

3.1 The Contractor and Contractor's employees will conform in all aspects of his legal duties and responsibilities as laid down by Legislation and to these instructions. In the case of conflict or contradiction shall allow for compliance with the most stringent. These instructions do not relieve the Contractor from his legal or contractual obligations.

4. CONTRACTUAL OBLIGATIONS

4.1 The Contractor will ensure that all equipment, plant, machinery and apparatus brought onto or used on the contract is safe and without risk to health, safety, or the environment and is maintained to an

acceptable standard. All necessary test and examination certificates must be available for inspection at all times.
4.2 The Employer retains the right to stop any operation, activity or erection of plant/equipment, etc if it is considered that there is a hazard to the safety and health of site personnel (or others) or the possibility of environmental or ecological damage.
4.3 The Employer will not accept any responsibility for any increased cost arising out of such action.
4.4 The Contractor and Contractor's employees will obey any reasonable written or verbal instructions given by a Employers or Owner's Representative in respect of health, safety and environmental controls.
4.5 The Contractor shall ensure all his or his subcontractors employees are competent in their assigned position, and are fit for work under the anticipated conditions and are free from infectious disease as evidenced by medical examination.

5. HEALTH, SAFETY & ENVIRONMENTAL POLICIES

5.1 Before commencing work, the Contractor must issue the following documents to the Employer's senior representative on site.

- A copy of the Contractor's Health, Safety & Environmental Policy.
- A copy of the Employers Liability Insurance Certificate.
- Copies of all relevant Risk Assessments and Method Statements.
- Copies of any safe working procedures which the Contractor issues to his own employees.
- Copies of employees Safety Passport, CV and E101 Document where applicable

5.2 The Employer's Worksite HSE Management Plan is readily available and will be given to and reviewed by the Contractor before commencing work.
5.3 A copy of the Contractors Project Specific Health, Safety and Environmental Plan shall be given to the Employer within 30 days of award of contract.

6. PERSONAL PROTECTIVE EQUIPMENT

6.1 The Contractor shall ensure that his employees are provided at no charge with all necessary protective equipment to comply with the Construction Health, Safety & Environmental Plan. Trained in its use, and that his employees properly wear and store such equipment.
6.2 The Contractor shall ensure that personal protective equipment is properly maintained in good order and replaced at no charge when defective, or lost.
6.3 All protective equipment to be approved by the Employer, and in accordance with Owner's specification sheets.
6.4 Contractors employees shall wear the personal protective equipment required, disciplinary action shall be taken against employees not doing so, and where appropriate, their line supervision.

6.5 **PPE Standards**

Safety Helmets and all other protective equipment should meet EN standard, and shall be fitted with a chin strap.
The colour of the safety helmet shall comply with the following requirements:
Owner - Yellow helmet
Other – Other color than yellow

Eye Protection
No conventional glasses can be worn on site.
General eye protection in the form of safety spectacles shall be worn by all persons at all times at the worksite. General eye protection shall meet with standard and attachment (DOC0850) and shall be fitted with side shields. No shaded lenses shall be worn in areas of limited light, i.e. on night shift, or within buildings. Where necessary, workers shall be supplied with prescription safety glasses.

Additional full face visors will be required for operations such as welding, burning, grinding, etc, shall meet document “PPE for Contractors” standards in attachment. Where full face visors or welding visors are supplied, they shall be capable of being fitted to the safety helmet.
Chemical resistant Goggles must be worn on the safety helmet at all times.

Hearing Protection
Shall consist of disposable ear plugs, ear inserts plugs or ear muffs which meet document “PPE for Contractors” standards in attachment. Attenuation characteristics shall be sufficient to reduce noise levels to below 85 db(a).

Respiratory Protection
Respiratory protection equipment must be suitable for the hazard presented by the workscope i.e. the potential health problem which could arise. Disposable respirators for nuisance dusts shall comply with document “PPE for Contractors” standards and shall have a protection factor of at least 10.
Respiratory protective equipment for other types of work i.e. paint spraying, welding galvanized steel, or using other toxic materials, shall be detailed exactly in the work method statement. A copy of which shall be given to the Employer’s HSE Manager. All such RPE shall comply with document “PPE for Contractors” standards in attachment. A fit test and maintenance schedule shall be put in place for RPE, as required (e.g. BA sets).

Safety Boots
Safety boots shall be to document “PPE for Contractors” standards. They shall have steel toe caps enclosed within the boot i.e. not on the exterior of the boot and have adequate ankle support. When working in process areas outside of the designated construction area the safety boots must be anti static. Where Rubber boots are required i.e. pouring cement, they shall be to document “PPE for Contractors” standards and shall have steel toecaps enclosed within the boot.

Gloves
The contractor is required to supply gloves that are fit for purpose taking into account any necessary risk assessments.
General purpose gloves shall be to document “PPE for Contractors” standards. They shall have canvas backs and leather hide palms.
Welders gauntlets shall be to document “PPE for Contractors” standards. Rubber, vinyl or nitrile coated gloves issued to Contractor Employees using hazardous substances shall meet document “PPE for Contractors” standards. The type of glove, appropriate to the substance being handled shall be detailed exactly in the work Method Statement. A copy of which shall be given to the Employer’s Site HSE Manager (see Section 40).

Safety Harnesses, Inertia Reel and Lifelines
Shall comply with document “PPE for Contractors” standards and be fitted with snap hooks with locking mechanism. Safety belts are not acceptable. 100% Tie-off at all times is required and the use of double lanyards is required where there is insufficient edge protection. Yearly inspection certificate in accordance with legal requirements – a copy of which shall be given to the Employer.

Overalls
Overalls shall comply with document “PPE for Contractors” standards. The wearing of loose clothing on site is not permitted. Within the construction site one piece Nomex fire retardant overalls must be worn. Within the process areas out side of the construction area, one piece Nomex fire retardant anti static overalls must be worn.

Other PPE
All personal protective equipment shall be to document “PPE for Contractors” standards. Types of PPE issued shall be detailed in the Work Method Statement. A copy of which shall be given to the Employers Site HSE Manager (see section 10).
6.6 Basic personal protective equipment to be worn by all site employees shall be safety helmet, general eye protection, safety footwear, gloves and overalls.

6.7 Contractors labor should be readily identifiable either by bearing their companies name or logo on their helmet or overalls.
Note:
- The use of poor quality PPE is not acceptable. In most countries PPE to internationally recognized standards is available. Alternatives to quoted standards to be evaluated carefully by Employer and validated by Owner.
In addition to complying with relevant standards, new PPE shall be CE marked – EC

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7. HSE ORIENTATION COURSE & SITE ACCESS

7.1 The Contractor shall ensure that each of his employees attend the HSE induction course organised by the THE EMPLOYER/IFB
7.2 The Contractor shall, before work commences, furnish the Employer's/Owner Security Manager with the following documents.
For each employee intended to work on site:

- A copy of employees VCA certificate (or affiliated and amalgamated schemes) and CV.
- A copy of employees Dimona/Limosa document where applicable.
- A copy of driving permit for any type of vehicle which he may wish to drive on site.
- Copies of appropriate competency certificate. E.g. scaffolding (CISRS), plant operators (CPCS)

8. HEALTH, SAFETY & ENVIRONMENTAL SUPERVISOR

8.1 Each Contractor must appoint in writing a HSE Supervisor to oversee the conduct of his operations.
The HSE Supervisor shall liaise with the Employer to ensure that all necessary HSE precautions are being adhered to and that any information or instruction on health, safety and environment issued by the Employer, Owner or Contractor is being properly followed by everyone concerned. This does not remove the responsibility of all Contractor site supervision and management levels to ensure that their operations are carried out in a safe and efficient manner. The HSE Supervisor shall be suitably qualified.
8.2 Where Contractors, employees exceed 50 persons, the HSE Supervisor shall be full time i.e. employed (on site) only on health, safety and environmental duties. In addition, the Contractor shall employ one full time HSE Supervisor for each multiple of 100 persons employed.
8.3 All visiting HSE Supervisors shall report to the Employer Site HSE Manager.
8.4 The Contractor HSE Supervisor shall submit on a weekly basis to the Employers HSE Manager a detailed HSE Report.

9. SUPERVISORS & HSE SUPERVISORS - LANGUAGE

9.1 All Contractor Supervisors and Safety Supervisors shall be fluent in English or French.

10. PERMITS TO WORK

10.1 Explanation
A Permit to Work system is a safety procedure designed to protect personnel and plant. It consists of an organized and predefined safety procedure. It forms a clear record of all foreseeable hazards which have been considered in advance. Correct operation of the system ensures that:

- Only one authority issues permits to allow personnel to work.
- Only trained and authorized supervisors shall request and receive permits.
- All personnel are aware of safety measures required to be taken.
- The area affected by the work is clearly defined.
- The period of time during which the work may take place is clearly defined.
- The correct protective clothing and equipment is provided and used.
- Appropriate management are aware of the work in progress.

10.2 Arrangements

All work in process areas outside of the construction areas will require a task specific Permit to Work issued by INEOS.
Blanket permits to work will be issued by INEOS for the Construction areas being managed by the Employer.
Within the construction areas contractors will be required to request from the Employer task specific permits for the activities as listed below.
Permits to work will be required for all work activities including:-

- Entry into vessels, equipment or any confined spaces.
- Temporary electrical work (where electrical isolation procedures apply).
- Excavation accordingly 1.2m in depth.
- Radiography.
- Spray painting and grit blasting.
- Use of man baskets.
- Erection or removal of flooring on open steelwork and handrails.
- Hydrostatic or Pneumatic testing
- HP Water Jetting

In addition to the above activities, permits will be considered for any potentially hazardous activity where an extra degree of work control is felt to be appropriate.
10.3 Contractors supervisory personnel shall be authorized by the Employer/Owner to request and sign for receipt of permits to work, after suitable training. The Permit to Work must be displayed at the Work face at all times.
10.4. Any work carried out at existing installations shall be subject to the Plant Operator's own permit to work systems. (INEOS Feluy)

11. RISK ASSESSMENTS

11.1 The Contractor will be required to produce risk assessments for all works under their control. The risk assessment form shall give the Employer written information on the following, at least 7 days before the job commences.

- Identification of all hazards applicable to significant risk activities.
- Details of measures in place to control the risk.
- A justification that the existing control measures are adequate or if not, a detailed action plan on how the risk(s) shall be controlled.
- A risk assessment must be produced with all Permit to Work requests.

11.2 Generic risk assessments may be produced to cover day to day activities.

12. METHOD STATEMENTS

12.1 Contractors shall submit work method statements for all work requiring a permit to work and where the Employers Site HSE Manager or Construction Manager considers the risk from any activity to be significant. These should be issued to the Employer's relevant Discipline Supervisor and Site HSE Manager at least 7 days before work is due to commence.

12.2 In addition to work associated with permits to work, work method statements shall be submitted for the following:

- Piling Operations
- Heavy lifts as specified by the Construction Manager
- All hot work, within live plant
- Erection of steel (including flooring and handrails)
- Excavations of 1.2m or more
- Heat Treatment/Stress Relieving
- Hot Taps
- Pressure testing

12.3 The work method statement shall detail:

- The job to be undertaken.
- The individual activities required to complete the job.

- The individual trades/disciplines involved in each activity.
- Plant, equipment, tools to be used in each activity.
- Any substances/chemicals to be used and where and during which activity they will be used (together with a Safety Data Sheet assessment).
- The name(s) of the Supervisor(s) for each activity.
- The name of the person in overall charge of the job.
- A detailed description of how the work will be done including control measures and procedures to complete each activity and the overall job safely.
- Heavy lifts exceeding 10Tons, or of a complex nature e.g. tandem lifts or as specified by the Construction Manager, (or the Rigging and Lifting Supervisor).
- All hot work.

12.4 All work method statements shall be reviewed by the Employer Area Construction Manager and/or the Site HSE Manager, Rigging & Lifting Supervisor, as appropriate.
12.5 Compliance with the standards detailed on the work method statement and relevancy to current operations shall be monitored on a daily basis and during Contractors safety management meetings.

13. PREJOB DISCUSSION/DAILY TEAM TALKS

13.1 The Contractor shall ensure that its supervision, in direct charge of a job fully briefs and discusses with the employees at the start of each shift, and prior to commencing a new activity the following matters prior to the job commencing:

- Methodology of the job.
- Associated hazards.
- Safe working methods to be adopted.
- Requirements of the Permit to Work.
- Requirements of the Risk Assessment.

13.2 The Contractor shall also ensure that all of its employees are aware of the requirements contained within the Permit to Work, Risk Assessment and Method Statement. The contractor will ensure that each individual team member signs the Team Talk Register. The register must be kept with the Permit, Risk Assessment and Method Statement at the Work Face.

14. WORKING AT HEIGHTS

14.1 Contractors must not interfere with access arrangements, e.g. scaffolding, ladders, etc.
14.2 During scaffold erection and any other task where there is no or incomplete edge protection 100% Tieoff is required using a double lanyards.
14.3 Scaffolding must only be erected or dismantled by suitably trained, qualified and competent scaffolders. All scaffold access ladders will be inside the scaffold structure where possible and the ladders will be of a metal construction.
14.4 Any work which results in openings being created where persons can fall through, or removal of side walling/barriers where persons can fall from must be effectively protected to prevent injury and will require a detailed method statement, work permit and designated supervisor.
14.5 Holes in floors will be guarded, or covered. The cover should be secured and marked “Excavation”.
14.6 Materials, equipment or plant shall be properly secured to prevent them falling from height. Where there is a danger of falling material, effective steps i.e. solid barriers and warning notices must be taken to prevent access, and warn people about the hazard.
14.7 A specific Permit to Work will be required for working on roofs. Crawling boards and 100% Tie-off must be used by Contractors who work on fragile or sloping roofs where personnel can fall through or from the roof.
Fall protection barriers must be erected around all roofs, before work commences.

14.8 Reference should be made to the sections of these instructions covering "Scaffolding" (17), "Man Riding Baskets" (15), "Safety Harness" (16), etc where appropriate. Safety harnesses, lifelines and fall arrestors shall be used where staging, scaffolding or other safe means of access is not practicable.

15. MAN RIDING BASKET (Only applicable with the permission of Owner/Employer)

15.1 When the carriage of personnel by crane is required, the man riding basket must be suitably tested and have a current test certificate and clearly marked "Man Riding Only". All wire ropes and other attached lifting equipment must also have a valid certificate.
15.2 All cranes used for carrying personnel must be provided with a deadmans handle facility to ensure that the brake is applied when the control lever is released. Crane hooks must be fitted with safety catches or equivalent and the operator must be in his cab at all times.
15.3 At no time shall the crane be allowed to be used in a free fall situation. Cranes must have power lowering capabilities for carrying men.
15.4 Limit devices must be fitted to the cranes to ensure that the carrier cannot be raised above the over hoist limit of the crane. The limit switch must be tested, daily, before raising persons in the baskets.
15.5 All employees using man riding basket must be secured to the crane hook by a safety harness. The safety harness must be secured to the master link of the supporting sling or to the hook of the crane.
15.6 Man riding baskets may only be used when an appropriate work permit has been issued by the Employer.

16. SAFETY HARNESSES

16.1 Where it is not practicable to provide a standard working platform and the working height indicates a potential fall, safety harnesses must be worn. When working on open steel or erecting/dismantling scaffolding a securely attached safety harness and where appropriate an inertia reel must be used.
100% Tie-off is required at all times.
16.2 Safety harnesses must be approved to BS EN 361 or document “PPE for Contractors” standards in attachment and be properly maintained and regularly inspected at 3 monthly intervals. A record of such inspection shall be kept by the Contractor.
16.3 Where safety lifelines are not adequate an inertia reel shall be supplied by the Contractor. Six monthly examinations of inertia reels shall be carried out by an independent examiner in addition to the normal monthly checks carried out by the Contractor.
16.4 Color coding on inertia reels shall be as per lifting equipment (Section 33).
16.5 Contractor employees shall not move a distance of more than 3m (10') horizontally away from the inertia reel secure anchorage point.

17. SCAFFOLDING

17.1 All scaffolding must be manufactured to European Standards, and be erected in compliance with document “PPE for Contractors” standards in attachment “Temporary Works Equipment. Part 1: Scaffolds – Performance requirements and general design”. In addition to the main guard rail, an additional guardrail is required such that the gap between the toe-board and main guardrail does not exceed 470mm and all boards must be secured, without causing a tripping hazard.
17.2 Scaffolding must not be disturbed or altered by any unauthorized persons. Where alterations are required by the Contractor, they must contact the Authorized Scaffolders who will carry out the work under competent supervision using experienced scaffolders.
17.3 Where materials are to be positioned on scaffolding the Contractor supervision must ensure that the scaffolding is not overloaded.
17.4 Before use, scaffolding shall be inspected by an authorized scaffold inspector who shall complete a "scaffold tag" and secure it in a prominent position at the base of all ladder access points. The scaffolding tag will clearly show the following information as a minimum:

- Location.
- Reference No.
- Requested by.
- Access Scaffold Classification.
- Maximum Distributed Load/Working Lift.
- Maximum number of Working Lifts to be used simultaneously.
- Date Erected.
- Erected by.
- Inspected by.

17.5 Scaffolds shall be inspected at weekly intervals by the authorized scaffold inspector who shall sign and date the "Scaffold Tag" after each inspection. Scaffolding not considered safe shall have the scaffold tag withdrawn and a prominent "DO NOT USE" sign displayed.
17.6 A scaffold register shall be kept by the authorized Scaffold Inspector.
This shall contain:

- Date of first and subsequent weekly inspections.
- Individual identifications of all scaffolds which shall be cross referenced to the Scaffold Tag identity number.
- Clear name and signature of the authorized scaffold inspector against each separate scaffold inspected.

17.7 No scaffold may be erected which impedes normal access or can be accidentally struck by moving plant without prior consultation with the Employer so that a safe system of work can be agreed.
17.8 Contractors are not permitted to erect or carry scaffolding near live overhead electrical cables, or equipment because of the danger of tubes making accidental contact with electrically charged apparatus.
17.9 If there is any doubt about the security of any anchorage, suspension points or ties for a scaffold e.g. strength of existing buildings/structures, or those under construction, the Employer must be consulted before proceeding with erection.
17.10 All scaffolds must be provided with suitable access and where metal ladders are used for this purpose they must be of an adequate length and properly secured by lashing or fixing to prevent displacement.
Where possible all access ladders to be inside the scaffold structure.
17.11 Action shall be taken to warn personnel against using partly erected or dismantled scaffolds. A prominent "DO NOT USE" sign shall be clearly displayed.
17.12 An approved standard for scaffolding shall be issued to scaffolding contractors separately.
17.13 The siting of scaffold material racks/compounds shall be approved by the Employer.
17.14 Rolling scaffolds will not be constructed with a height greater than 3 times the minimum base width and shall only be used on level ground.
17.15 Hydraulic platforms shall only be operated by approved, trained operators.

18. LADDERS

18.1 Only properly manufactured metal ladders shall be used on site. Site assembled ladders shall not be permitted.
18.2 Ladders must be in good condition and free from defects i.e. broken rungs, split stiles.
18.3 Ladders must not be painted.
18.4 Ladders must:

- Be securely fastened at the top.
- Be properly positioned at the base.
- Extend at least 1m (5 rungs) above the working platform.
- Be at an angle of 450mm (1') out for every 1.2m (4') vertical drop.

18.5 Ladders shall be inspected and color coded as per lifting equipment (Section 33).
18.6 Ladders will be used for access only; working from a ladder will not be permitted. Short duration working from Step Ladders may be authorized by the Employer providing the user has produced a safe method of use.

19. STEEL ERECTION

19.1 The weight of each component in excess of 500Kg shall be clearly marked upon it.
19.2 Erectors must be fully informed of the correct erection sequence, by their supervisor, prior to each stage of work commencing.
19.3 Vertical access provision should whenever possible be fixed to the steel before it is lifted into position.
Where this is not possible permanent access i.e. stairways, permanent metal ladders shall be installed as early as possible.
19.4 Where horizontal access along structural members is required as much work as possible must be completed before the steel is lifted into position.

This includes:

- Fixing of handrails or of posts for securing steel wire ropes to be used in conjunction with safety harnesses or inertia reels.
- The fixing of scaffold tubes (needles) to the lower flange of an I-beam to allow a working platform to be erected.

19.5 Where scaffold tubes (needles) are used they shall not support a working platform wider than three boards, or one lightweight staging without being "picked up" (rakered back).
19.6 Where no ladder access, permanent stairway, etc, leads onto working platforms, as described above, employees shall use man riding baskets (see Section 15) or powered access equipment (Section 17).

20. FIRE PROTECTION

20.1 Contractors must ensure that adequate fire precautions are taken whilst carrying out their activities, especially where these activities involve hot work, e.g. burning, welding, grinding, etc.
Adequate fire precautions include:

- Provision of the correct type of fire extinguisher (normally dry powder).
- The ability of contract employees to use the fire extinguishers.
- Where there is a high fire risk or a risk of injury to other workers through sparks or hot slag the area shall be sheeted in with flame retardant blanket.
- In high risk fire areas it may be necessary to sheet the work area with flame retardant blanket, provide additional fire fighting means, and nominate a dedicated fire watcher.
- More than one escape route will be provided for hot works being executed from access scaffold.

20.2 Contractors must ensure that their employees are aware of the correct procedures to be followed in the event of a fire alarm/evacuation situation.
20.3 Contractor employees must know the location and, have been trained in the correct use of:

- Fire extinguishing equipment.
- Alarm call points.
- Emergency telephones.
- Escape routes and fire exits.
- Assembly points.

20.4 Contractors must ensure that their employees participate fully in any Employer/Owner evacuation exercise.
20.5 Contractors offices/cabins shall have at least one water type fire extinguisher located at the access/exit door. No point within any office/cabin shall be more than 20m from a fire extinguisher. The cabins will be positioned maintaining the legal requirement for spacing relating to the type and specification of the unit.
20.6 Any engine driven plant brought onto site shall have one Dry Powder extinguisher mounted on or adjacent to it.

21. HOT WORK (GENERAL)

21.1 Hot work includes but is not limited to burning, welding, grinding and heat treatment.
21.2 As adequate number of suitable dry powder fire extinguishers shall be located within close proximity to hot work areas.
21.3 In areas of high fire risk a dedicated trained fire watcher shall be positioned at the worksite or risk area.
21.4 All slag and sparks must be contained within the immediate work area.
21.5 Temporary fabrication shelters must be of flame retardant material.

21.6 Welding and burning on certain materials may give rise to hazardous fumes. In certain areas local exhaust ventilation will be used as agreed between the Contractor and the Employer. In other more open areas respiratory protective equipment shall be worn. (Welding of galvanised fittings is to be avoided, but when required, respiratory protection must be worn).
21.7 Hot work shall not be carried out in office or accommodation areas.

22. WELDING

22.1 Welding sets shall be in good condition, properly maintained, and earthed.
22.2 Isolation switches on welding sets shall be readily accessible.
22.3 Terminals and live components shall be adequately protected.
22.4 Cables shall be frequently inspected to ensure the insulation is intact.
22.5 Damaged cables or electrical holders shall be properly repaired or replaced.

22.6 The welding return cable shall be secured onto the work piece. If this is not practical it shall be as near as possible.
22.7 Proper cable connectors shall be used when connecting runs of cables.
22.8 Welders shall wear:

- Face and eye protection with correct grade of filter.
- Welders gauntlets.
- Long sleeved heavy cotton overalls which shall comply with document "PPE for Contractors" standards.

Welders shall wear safety helmets at all times, except when it is agreed as impractical, and written permission is granted by the Employer, subject to mitigation of hazard, i.e. no work overhead, or shielded from falling objects.
22.9 Welding areas should whenever possible be screened off using flame retardant blanket or other suitable material.
22.10 Asbestos material shall not be used on the contract.
22.11 Electric Arc Welding equipment and accessories shall conform to document "PPE for Contractors" in attachment or equivalent.

23. USE OF GAS & OXYGEN EQUIPMENT
23.1 Where Contractors bring their own equipment onto the contract, such equipment must comply with approved standards.
Cylinders shall:

- Be in good condition and not suffering from corrosion.
- Be properly color coded in accordance with the European Standard EN1089-3
- Be individually identified.

Hoses shall be properly color coded to the internationally recognized standard for the gas being used, in good condition and fitted with hose connectors attached by permanent clips.
Check valves and flashback arrestors must be used on both hoses at all times.
23.2 The equipment used by Contractors must be properly maintained. Suspected leaks may be confirmed by a soap solution. If the leak cannot be cured the equipment must be withdrawn.
23.3 Users shall check the equipment for perished, damaged hoses, regulators, and pressure gauges, etc.
Defects must be reported to their supervisors.
23.4 Gas cylinders must not be left lying around. Arrangements should be made to segregate and store cylinders in an open mesh fenced compound. Before constructing any temporary gas compound or using an existing gas storage area, Contractors must obtain permission from the Employer.
23.5 The Contractor must provide suitable facilities to minimize manual handling of cylinders.
23.6 Cylinders must be in trolleys, or tied off using steel wire when on site. A bottle key shall be kept with cylinders in use.
23.7 Stored oxygen and fuel gas cylinders shall be kept separate with a minimum separation distance of 5m. Cylinders must never be stored or used in a horizontal position but must be secured in an upright position. Empty cylinders must also be separated from full cylinders.
23.8 All gas cylinders must be handled with care and they must not be misused or abused. They must be properly shut off when not in use and safety caps must be fitted when being moved.
23.9 Great care must be taken to ensure that gas equipment, including hoses, is not allowed to cause obstruction of roadways, walkways, manholes, ladders or other means of access where they can cause hazards or be damaged. Hoses not in use should be coiled up and put in a safe place. Hoses should whenever possible be supported off the ground.

23.10 Where any operation involves the use of gas and oxygen equipment in enclosed or semi-enclosed spaces, Contractor's supervision must carry out frequent checks to ensure these procedures are complied with.
23.11 During meal breaks and at stopping times, hoses and equipment must be removed from confined spaces or excavations. Oxygen or gas cylinders must not be taken into confined spaces for use or storage.
23.12 No modification to tanks or drums which have contained flammable liquid shall be undertaken at the site.

24. EXPLOSIVES
24.1 NO EXPLOSIVES SHALL BE ALLOWED ON SITE. Cartridge tools are not permitted on this site.

25. COMPRESSED AIR
25.1 All air receivers and compressors shall be in good condition and properly maintained.

25.2 Air receivers shall be individually identified and marked with their safe working pressure.
25.3 Air receivers shall be accompanied by a valid test certificate which shall be kept on site by the Contractor and shown to the Employer's Representative before bringing the vessel onto site.
25.4 All air receivers must be fitted with a properly set pressure relief valve.
25.5 Air receivers shall be examined and the pressure relief valve tested by an independent examiner at yearly intervals.
25.6 A register of all air receivers containing:
- Individual identification numbers.
- Dates of independent inspections
- Name and signature of independent examiner.
- Rates safe working pressure.
- Pressure at which pressure relief valve lifted shall be kept on site by the Contractor along with all current certification.

25.7 The requirements of 25.1 - 25.6 inclusive also apply to compressor mounted air receivers.
25.8 All compressed air fittings shall be wired and/or restrained to prevent them from whipping should the coupling separate.
25.8 Only hose clamps designed for compressed air service shall be used. Worm drive (Jubilee) clips are not acceptable. Whip arrestors must be fitted to all compressed air hose couplings.
25.9 COMPRESSED AIR MUST NEVER BE USED FOR CLEANING CLOTHES
25.10 Nozzles used for air blowing must be fitted with a dead mans valve.

26. ABRASIVE WHEELS

26.1 Contractors must ensure that any of their employees authorized to change Abrasive Wheels have attended an approved course of training and have been appointed in writing by the Employer.
26.2 Contractor's employees authorized to change wheels must be in possession at all times on site, of an Employer's certificate detailing their appointment in writing.
26.3 Details of each employee trained must be entered in the Abrasive Wheels register kept on site. Contractors must produce certificates and registers on request.
26.4 Machines used to drive Abrasive Wheels must be in good condition and properly guarded.
26.5 Pedestal or bench mounted grinders must have an emergency stop button and be fitted with a properly adjusted tool rest.
26.6 All hand held grinders shall have a "Dead Man" switch.

27. CONTRACTORS TOOLS & EQUIPMENT

27.1 All Contractors tools and equipment must be suitable and adequate for the purpose. Tools should be CE marked, (or comply with equivalent standards). Electrical tools must be equipped with dead man buttons.
27.2 Guards and electrical trip switches must work effectively and must not be removed or by-passed. Emergency stop buttons must be tested on a weekly basis and a record maintained.

27.3 All tools shall be of good quality and maintained in a safe working condition. This should be verified by the Contractor immediately prior to arrival at Site and checked by the user before use. A 3 monthly re-inspection with written records should be maintained. Home made tools are not permitted
27.4 The Contractor shall provide suitable storage with suitable racks and bins for storing tools and equipment.
27.5 The Contractor shall nominate or employ the services of a competent qualified electrician to inspect and tag electrical power hand tools transformers, distribution boards, extension cables etc on an at least quarterly basis. The tag shall display name, signature of the individual inspecting the tool, date of inspection. The Contractor shall forward the name and qualification of the qualified Electrician to the Employers HSE Officer at the commencement of the Contract.
27.6 The Contractor shall keep, on site, a register of all electrical power hand tools in use. The register shall detail:

- Individual identity number of the tool.
- Name, signature and company of the qualified electrician carrying out the inspection.
- Date of inspection.
- Maintenance and Inspection schedule.
- Remarks on condition of tool and whether repaired or withdrawn from use.

27.7 No electrical powered hand tool shall be used other than it is tagged with a current "INSPECTION" tag.
27.8 All electrical leads must be connected to the power source through standard industrial waterproofed plugs and sockets, which shall be in good condition.
27.9 For additional information on Electrical tools refers to Section 36.

28. MECHANICAL PLANT & EQUIPMENT

28.1 Mechanical plant and equipment is defined as:

- Earthmoving plant.
- Road making plant and equipment.
- Concrete batching plant and mixers.
- Forklift trucks.
- Miscellaneous plant including generators and compressors.
- Powered access equipment (e.g. starlift, cherry picker, etc).

28.2 Maintenance
28.2.1 All items of mechanical plant transported to the contract shall be in a safe and sound condition and shall be properly maintained.
28.2.2 A program of regular, preventative maintenance shall be established by the Contractor, as per the manufacturer's handbook, to ensure that all plant equipment is systematically inspected, maintained and repaired as necessary.
28.2.3 The preventative maintenance program and the Contractor's employee responsible for taking the action shall be clearly detailed, identified and given to the Employer.
28.2.4 A safe system of work must exist during all maintenance and repair operations to ensure that no part of the machinery is set in motion while work is being carried out.
28.2.5 Plant maintenance must not be carried out within the main construction site.
28.2.6 Where refueling is required facilities provided shall be adequately covered by Fire Extinguishers, earthing, warning signs, bunding and proper fuel dispensers.
28.3 Competency
28.3.1 All drivers and operators of mobile plant (mechanically propelled vehicles) shall be in possession of the appropriate license for the class of vehicle.

28.3.2 All drivers, operators and banksmen of mobile plant (mechanically propelled vehicles) shall be trained by Contractor. The Employer shall assess their competency through a short practical test and authorize them for site operations (formed signed up by the operator and the contractor representative shall be recorded.
28.3.3 The names and license details of all proposed drivers and operators of mobile plant (mechanically propelled vehicles) along with the class of vehicle to be operated shall be given in writing to the Employer Site HSE Manager at least 7 days before work commences.

28.4 General
28.4.1 Every dangerous part of machinery shall be securely guarded.
28.4.2 Any guards removed for maintenance or repair purposes must be replaced before the machine is set in motion.
28.4.3 No mobile plant (mechanically propelled vehicles) shall carry passengers unless a proper fixed seat is provided, except when the equipment is specifically designed for standing personnel.
28.4.4 Mobile plant (mechanically propelled vehicles) must be parked on firm level ground when unattended, the engine stopped, brakes on and any load or attachment lowered to the ground and the keys left in the ignition.
28.4.5 No mechanical plant or equipment shall be sited on or operated on any area of the contract without the permission of the Employer.
28.4.6 All items of mobile plant (mechanically propelled vehicles) shall be fitted with a reverse warning audible alarm (seat belts and roll over protection - EC).
28.4.7 All drivers/operators of mobile plant (mechanically propelled vehicles) shall strictly obey the instructions of the site security, traffic regulations and speed limits. A banksman shall be in attendance during all hazardous reversing procedures.
28.5 Inspection
28.5.1 All mobile equipment (mechanically propelled vehicles) shall be inspected by a competent person appointed by the Contractor prior to use on site. Equipment considered being unsafe, by the Employer, shall not be allowed access to the contract.
28.6 Flame Arrestors
All mobile plant for use in Live Plant Areas, or during the Start up and Commissioning Phase of the contract, must be fitted with exhaust Flame Arrestors and Chalwyn Valves.

29. MACHINERY GUARDING

29.1 Unauthorized personnel must not operate, interfere or tamper with plant or equipment.
29.2 Persons authorized to use machines must first check that guards are in position and that any other safety devices, e.g. emergency stops are in working order.
29.3 All plant or equipment brought onto the Employers/Company premises must be properly guarded to prevent injury, and be CE marked, (or to a standard equivalent to the European Union Machinery Directive 89/392/EEC).
NO GUARD OR FENCE MAY BE REMOVED FROM MACHINERY

30. NOISE

30.1 Ear Protection Zones shall be clearly identified by the Employer. Contractors must ensure that their employees are provided with, and use, suitable approved hearing protection when working in these zones.
30.2 Where Contractors bring plant or machinery onto the Employers premises they must ensure that noise levels produced are less than 80db(A).
30.3 Contractors must advise the Employer if they anticipate excessive noise levels from their operations so that all reasonably practicable precautions can be taken to protect persons who may be affected.
30.4 Where noise levels from operations exceed 80 db(A) (the Contractor should arrange to carry out noise surveys - EC) all employees involved in the operation shall be supplied by the Contractor with suitable, approved hearing protection.

31. MOBILE CRANES

31.1 All cranes, whether owned by the Contractor or hired, must carry relevant test certificates and thorough examination reports, together with the manufacturers handbook. This documentation must be submitted to the Employer for inspection before shipment to site.
31.2 Only persons who are competent and authorized by the Employer shall be allowed to operate cranes.
The Contractor must be able to prove, to the satisfaction of the Employer, the competence of their employees to operate such equipment prior to its use.

31.3 Crane operators or other competent persons must carry out daily inspections and enter these in the crane register. Failure to maintain the register properly may lead to suspension of operations. This obligation is the responsibility of the crane hirer when he is supplying the crane and the operator. In addition, Contractor will implement a regular inspection and maintenance program to ensure that all components of the lifting device are in good condition.

31.4 Travel routes for cranes and crane standing must be agreed with a responsible person of the Employer in order to avoid such things as overhead lines and other structures, underground services, excavations, made up ground, etc. Load spreader pads of sufficient size in thickness area and of suitable material, i.e. metal plates, timber, etc, are to be placed under each outrigger foot, before all crane lifting operations.
31.5 Crane duty charts (Load Radius Tables) must be displayed on or be available in the crane for easy reference, in English, and a language understood by the operator.
In addition, the Crane Manufacturers Operating and Erection manuals must be available on site.
31.6 No crane will be permitted entry to site until the crane, relevant documentation, (section 32.1) and operator competency (section 32.2) are checked and cleared by the Employer's competent representative.
31.7 Section 32.1 to 32.6 shall also apply to pile drivers, HIABS, fork lift trucks, cherry pickers, and similar equipment and any type of mechanical man lifting equipment.
31.8 All cranes shall be fitted with:

- A reverse warning audible alarm.
- Load Radius Indicator.
- Automatic Safe Load Indication.
- Crane hooks with Safety Catches

all of which must be serviceable.
31.9 All lifting equipment accompanying the crane shall comply with the requirements of section 32.
31.10 The assembly, rigging and de-rigging of any crane components, including fly jibs, shall only be done under the supervision of a competent lifting supervisor. An approved risk assessment, together with the manufacturer's erection procedures must be in place covering rigging activities for the equipment.
31.11 Every contractor involved in lifting operations with a crane (including a piling rig) or mobile crane shall appoint in writing a lifting supervisor to oversee all lifting operations.
31.12 No crane shall travel with a suspended load.
31.13 Outriggers, when installed, must always be used. (Unless authorized in writing by employer).

32. LIFTING EQUIPMENT

32.1 All lifting equipment used by the Contractor must be tested and examined and have a valid certificate.
Equipment must be properly marked with an identification number and safe working load and be colour coded by the Contractor as indicated below.
January – March Blue
April - June Green
July - September Red
October - December Yellow
32.2 Copies of all test and examination certificates must be available on Contractors site premises for inspection by the Employers Representative or visiting authority.
32.3 A register of all lifting equipment used by the Contractor will be kept by a Contractors nominated employee.
32.4 The Employer Site HSE Manager will be notified by the Contractor of the name of the nominated employee, charged with ensuring lifting equipment is inspected, and the register maintained.
32.5 The nominated employee shall receive all lifting gear on its arrival on site and ensure its proper storage in a rigging store, approved by the Employer. He shall further:

- Ensure each item of lifting gear is accompanied by a valid certificate and keep all such certificates for examination by the Employer.
- Enter the details of all lifting equipment received on site into a register which shall have details of the lifting gear identification number and safe working load.

- Ensure that all items of lifting gear are properly color coded as per the Employers instructions and that a board showing the current color code is permanently displayed at the approved rigging store and other appropriate places.
- Keep a register of all issues of lifting gear and ensure that all items of lifting gear are returned for his inspection on a monthly basis and that such inspections are entered into the lifting gear register.

32.6 The use of chains is prohibited on this site. The issue of webbing (nylon) slings shall be closely controlled. The nominated employee shall issue webbing slings to a supervisor for one job only and they shall be returned on completion of the job for re-inspection by the nominated employee. The nominated employee shall keep a record of all such issues and returns.
32.7 All lifting equipment shall be properly supported by a load bearing member of sufficient strength for the load to be imposed. Where appropriate, beam clamps or proper packing shall be used.
32.8 Defective lifting equipment shall be withdrawn immediately from service and returned to the nominated employee, for removal from site.
32.9 No item of lifting gear shall be used to support a load greater than the safe working load of the lifting gear.
32.10 All lifting gear shall be examined, by an independent examiner at 3 monthly intervals and all such examinations shall be entered into the register. Color codes on every independently examined item of lifting gear shall be changed by the independent examiner and as indicated by the Employer.
32.11 No item of lifting gear shall be used unless it has the current color code as indicated by the Employer.
32.12 Lifting equipment and other lifting appliances belonging to the Employer or Owner must not be used by Contractors unless written permission has been given for such use.
32.13 No ropes of any manufacture may be used for support or restraining purposes, unless certified as appropriate for that use.
32.14 Temporary pipe supports used during erection, are to be of sufficient strength and durability for the loads imposed by the pipe work system, i.e. approved wire rope lashing.

33. REPORTING OF ACCIDENTS/INCIDENTS

33.1 Contractors must ensure that their employees report all injuries within 1 hour to the Employer. All injuries will be reported immediately to the site medical centre.
33.2 Contractors must comply fully with the Reporting of Accidents and Incidents as detailed in the Employers Worksite HSE Management Plan.
33.3 Details of all accidents/incidents must be given to the Employer. The Contractor's supervisor assisted by Employer's Representatives shall conduct an investigation, complete the Employers Incident Investigation Report Form and forward it to the Employers Site HSE Manager within 1 hour of the accident/incident.
33.4 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 Employers Site HSE Manager. The scene of the incident must be left undisturbed until investigations by the Employer are complete.
33.5 It shall be the responsibility of the Contractor to notify the relevant Authorities of any injury to an employee requiring notification. Copies of all such forms shall be given to the Employer.

34. WORK IN CONFINED SPACES

34.1 Hazards can be encountered where work is carried out in excavations, tanks, vessels, pipes, or other confined spaces, for this reason the Contractor will be required to produce a detailed risk assessment and method statement.
34.2 The following processes are especially dangerous when carried out in confined spaces:
- Paint spraying.
- Preheating (naked flame).
- Welding.
- Arc air gouging.
- Use of cleaning fluids (solvents).

- Abrasive blasting.

The dangers involved include:

- Asphyxiation.
- Explosion.
- Fire.
- Oxygen enrichment or deficiency.
- Dust & fumes.
- Noise.
- Electrocution.
- Heat Exhaustion.

(Note: Many items of equipment will have been filled with nitrogen to prevent corrosion during preparation).

34.3 Method statements for work in confined spaces should address the following as a minimum:

- Work scope and method
- Nominated Supervisor
- Tally man
- Rescue procedures and equipment
- Training
- Tools & Equipment used
- Lighting requirements, including standby/emergency
- Explosion proof fittings
- Low voltage or pneumatic tools
- Ventilation
- Access
- Bonding to prevent both electrical shock and static discharge
- Work cycles, to reduce risk of heat exhaustion
- Fire safety and extinguisher requirements

34.4 Contractors shall not enter or commence work in any excavation, tank, vessel, pipe or chamber or other enclosed space, until a valid permit to work has been issued. Where Contractor operations may result in a dangerous atmosphere arising during the work activity the permit to work issuing authority must be made aware of his before permit issue.

No new activity shall be introduced into a confined space without the permission and signed approval of the permit to work issuing authority.

34.5 Whilst work is ongoing within a confined space, the Contractor will be required to provide a standby/tally man. NB: Reference should be made to the "Use of Gas & Oxygen Equipment" section 23 and Electricity, Section 35 of these instructions, if work in confined spaces will involve this type of equipment.

35. ELECTRICITY

35.1 The Contractors will be expected to provide their own electrical power supplies (Diesel generation).

35.2 Contractors must not interfere with or work on any of the Owner’s electrical installations or equipment without written consent.

35.3 Where Contractors have to work in the vicinity of electrical equipment they must take all necessary precautions to avoid accidental contact with live conductors, etc.

ALL EQUIPMENT MUST BE TREATED AS "LIVE" UNLESS ISOLATED/LOCKED OFF AND TAGGED

Repair or installation of any electrical equipment must only be carried out by a competent qualified electrician.

35.5 The electrical supply to powered hand tools must not exceed 220volts for electric tools and 24volts with instant isolation for portable lighting inside equipment Electrical lighting for user in confined spaces must not exceed 24 volts (and explosion proof where applicable). Powered hand tools used in confined spaces should, where possible, be air operated.

35.6 Contractors requiring to install temporary electrical supply equipment shall submit a temporary electrical supply procedure to the Employer for approval. The procedure shall where necessary cover installation of 380/440V system, installation of 110V system, lighting system, welding equipment installation, inspection testing operation and maintenance of temporary electrical systems.

Distribution Boards: Semi-permanent or long term:-
These should be accommodated in weatherproof positions and be so arranged, if possible, that they will not need to be moved during the contract. They should be proofed against interference or unauthorised operation and they should be large enough to accommodate all the necessary apparatus required. Each circuit should be clearly labeled and a circuit diagram should be located at each board.
Distribution Boards: Temporary:-
Distribution boards will be built according to Belgian legislation, with socket outlets and plugs based on Belgian material and standards.
Distribution Cables:-
These cables run from the main distribution boards to the local distribution boards throughout the site.
The cables will normally be multi-strand multi-core armored PVC cables but, in certain cases, may take the form of mineral insulated copper clad (micc) cables. The latter type should be sheathed with PVC.
The installation must be so arranged as to prevent the need for long trailing cables. Socket outlets should be located as near the working point as possible. Socket outlets in offices, etc, should be at least of 13 amperes rating with fused plugs.
Power and lighting circuits should be kept separate.
Adequate records should be made of all parts of the installation and should be kept up to date when alterations or extension are made.
Underground cables:
Cables may be provided by the contractor and laid underground to connect the supply or metering point to the semi-permanent site distribution boards.
The cables must be suitable for the duty and loading expected, e.g. armored PVC cables.
The cables should be buried at a safe depth and their routes clearly marked both on the site and on the site plans.
The cables should be properly terminated and be provided with efficient circuit protection.
Cable routes should be so arranged that the minimum of obstruction is caused. The cables should be treated with care and given the same supervision and protection as other cables.
35.7 No temporary electrical supply shall be installed or modified without the agreement and approval of the Employer.
35.8 Any tool, plant or equipment exceeding 110volts (55v to earth) shall be connected to an earth leakage circuit breaker (ELCB).

36. EXCAVATIONS & OPENINGS

36.1 No excavation work of more than 1.2m (this depth may be reduced to meet Owner's regulations) depth shall be commenced by the Contractor unless a valid excavation permit has been issued by the Employer.
36.2 Where "live" services are present, hand excavation must be carried out until the location of the service has been identified and made safe.
36.3 The Contractor must erect suitable edge protection (i.e. guardrails) around excavations or openings must be indicated by a sufficient number of warning lamps. Guardrails shall not be taken to mean bunting, tape or string.
All excavation work to a depth greater than 1.2m must be properly shored, or battered.
36.4 All excavations to a depth of greater than 1.2m shall have a proper ladder access point provided.
36.5 Spoil from excavations must be piled at least 1m from the edge of the hole.
36.6 Vehicular traffic shall be restricted from the edges of excavations, to prevent possible collapse.

37. ABRASIVE AIR BLAST CLEANING

37.1 Blast cleaning shall be carried out in an enclosed designated area.
Provision shall be made to prevent the spread of grit and dust outwith the blast area and to collect and dispose of the spoil to an approved location.
37.2 The blast cleaning area shall be indicated by prominent warning signs.
37.3 Only approved abrasives having no free silica should be used.

37.4 Personnel involved in the actual blasting of material shall be protected by a positive pressure, blast hood meeting approved standards and providing both respiratory and eye protection, with breathing air supplied via a suitable filter.
37.5 The nozzle shall be fitted with a properly functioning dead mans handle, and anti-static abrasive blast hoses. It is required that all equipment be grounded and checked for ground potential.
37.6 A standby man shall stay by the blast pot.

38. WORKING OVER WATER/DIVING OPERATIONS

38.1 The Contractor shall provide a buoyancy aids to any employee working over (or near) water where there is a likelihood of falling in and drowning.
The Contractor shall also supply a sufficient number of life buoys to be permanently located at the point(s) of danger. The life buoys shall be attached to a throwing line.
Where rescue, of a person falling into the water, may be difficult the Employer may require the Contractor to supply a standby boat crewed by a competent boatman, trained in rescue and resuscitation techniques.
38.2 Diving operations may only be carried out using approved specialist diving Subcontractors, employing certified commercial divers and upon acceptance by the employer of their HSE plan and method statements. (Diving Rules) Diving operations must be in compliance with UK Diving Operations at Work Regulations 1998.

39. CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH)

39.1 Hazardous substances include any flammable liquid or any substance likely to give rise to toxic, corrosive, irritant or harmful risk.
39.2 No hazardous substance shall be brought onto site without the approval of the Employer's Site HSE Manager.
39.3 A copy of the Material Safety Data sheet for the substance must be given to the Employer HSE Manager before its arrival on site.
39.5 Storage facilities for hazardous substances must be approved by the Employer HSE Manager.
39.6 Substances shall:

- Be kept to a minimum.
- Be securely locked or fenced off.
- Have appropriate warning notices affixed to the storage facility.
- Have "No Smoking" notices affixed to the storage facility where flammable substances are stored.
- Have fire extinguishers (appropriate to the substance) and other emergency equipment, including spill equipment located nearby the containment area.

39.7 Substances shall be held in secure appropriate containers with the substance clearly identified on the exterior of the container.
39.8 All containers holding hazardous substances must have their lids replaced as soon as they are not in use. Only minimum quantities required should be removed from the approved store at any one time.
39.9 It is the Contractors responsibility to complete a COSHH assessment, and ensure that users of substances are properly informed, instructed and trained in the hazards and control measures to be used.
39.10 The Contractor shall complete a training form and give it to the employer HSE Manager. This shall detail names of all persons trained and training received.
39.11 Empty containers must be removed as soon as possible and arrangements made for their safe disposal in compliance with the Waste Management Plan.
39.12 Hazardous substance must not be discharged onto the ground or into water drains where they can cause pollution or an explosion.
39.13 All hazardous substances will be disposed of in compliance with the Waste Management Plan..
39.14 All containers containing hazardous substances must bear international Hazard Symbols as required within Chemicals (Hazard Information and Packaging Regulations).
39.15 Products containing PCB_s (Polychlorinated biphenyls) and asbestos shall not be used or brought on site.

40. RADIOGRAPHY

40.1 Contractors who carry out radiography on the Employer's or Owner's premises must comply with safe systems of work. In particular, they MUST ensure that:

- Radiography areas are clearly marked using barrier tapes, notices and flashing lights.
- Audible warning (horns) must be sounded before a source is exposed.
- Only Classified workers are engaged in radiography work.
- All other personnel are clear of the area before radiography takes place.
- Radiography work is supervised by a Qualified Radiation Protection Advisor. Such Supervisors must be nominated in writing and notified to the Employers Site HSE Manager.
- Any incident which may have resulted in over-exposure of any personnel is brought to the attention of the Employer for investigation.
- They have a written emergency procedure to be followed in the event of loss, of an isotope or damage or malfunction of associated equipment. This procedure must be submitted to the Employer for approval before commencement.
- A certified meter is available on site.
- Radiography is carried out only at the times agreed upon with the Employer, and that notification is received by the Employer, 24 hours in advance.

40.2 Contractors who are not involved in radiography work must ensure that their employees respect warning notices, alarms and barriers in use where such work is being carried out.

41. HOUSEKEEPING & REMOVAL OF MATERIAL

41.1 Contractors must keep their work areas tidy and not allow rubbish or scrap to accumulate. If a storage area is required, an approach should be made to the Employer so that any request can be considered and where appropriate an area allocated for this purpose. Housekeeping will be included as part of periodic audits and inspections.
41.2 All waste will be disposed of incompliance with the Waste Management Plan and ultimately to a disposal site. All records shall be kept on site by IFB. Hazardous wastes must be properly contained, identified and segregated from other waste and disposed. The burning of waste on site is not permitted.
41.3 Combustible rubbish must be disposed of at the end of each shift or more regularly if necessary.
41.4 It shall be the responsibility of the Contractor to ensure that dedicated housekeeping crews are allocated to keeping work areas clean and tidy. The numbers involved in the housekeeping crew shall be dependent upon the type of work and numbers of personnel employed to carry out the work.
41.5 In the event that housekeeping is unacceptable the employer reserves the right to mobilize housekeeping crews and back charge Contractors.

42. OWNER PLANT, EQUIPMENT & ENERGY SOURCES

42.1 Contractor's employees are not allowed to use or operate any plant, equipment or energy source such as gas, compressed air, oxygen and electricity belonging to the Employer or Owner unless permission has been given in writing by Employer or Owner.
42.2 It is the duty of the Contractor to ensure that any of the Employer's or Owner's plant and equipment is used properly and defects reported to the appropriate person as soon as possible.
If authorization is given to connect tools or equipment to the Employers energy sources, the responsibility rests with the Contractor to check that the operating pressure or voltage is correct for the purpose.
Contractors must ensure that they employ competent workmen who are familiar with appropriate plant and equipment.

43. TRANSPORT

43.1 Only vehicles necessary to the construction operation shall be permitted to enter the construction site.
Motorcycles shall not be permitted.

43.2 Contractors must not bring vehicles onto Employers/Company's premises unless they are roadworthy and conform to the legal requirements. All vehicles must be well maintained, and exhaust emissions must be clean, with no visible black smoke.
43.3 Contractors must ensure that only licensed and authorised personnel are allowed to drive vehicles.
43.4 Loads shall be within the safe weight limit for the vehicle and should not project beyond the vehicle body in such a manner as to present a hazard to other vehicles, pedestrians or adjacent structures.
43.5 Passengers must never be carried unless a proper seat is provided. If necessary other additional safeguards i.e. guardrails shall be provided.
43.6 Personnel must not get on or off any vehicle whilst it is in motion.
43.7 All vehicles must be parked on level ground with the hand brake applied. Keys shall be left in the ignition unless at an authorized car park.
43.8 Vehicles shall not block access or emergency points.
43.9 Vehicles driven outside the contract site boundary must only use roads as designated by the Employer, to avoid damaging the local environment, and comply with local regulations.
43.10 Vehicles servicing the contract should, where practicable, be restricted to driving on the public highways to daylight hours.
43.11 The Contractors will be expected to develop a road safety policy, which will minimize the possibilities of traffic accidents on the public highways.

44. ACCESS

44.1 Recognized gangways and access ways must not be blocked unless a clear, safe diversion has been
provided.
44.2 Only authorized routes must be used to and from work sites.
44.3 Guardrails or barriers must not be removed without approval from the Employer's Representative. A person must be positioned to warn others.
44.4 Only suitable, sound and properly maintained access equipment shall be used to reach work positions.
44.5 No road shall be closed off without approval from the Employer and the issue of a road closure permit.
44.6 Barricades to separate pedestrians from vehicles must be erected where appropriate. Particular attention to be paid at entrance ways.

45. FIRST AID FACILITIES

45.1 The Contractor will not provide First Aid boxes, all injuries must be treated at the INEOS Medical centre (call 888).
45.3 The Employer/Owner shall provide all other necessary first aid facilities. Contractor shall not carry out first aid treatment for injury or sickness, except in emergency.
45.4 A record of all First Aid Treatment shall be kept by the Employer/Owner (nurses or guard call 888):

- Date time and place of incident
- Name and job of injured or ill person
- What happened to the person immediately after (e.g. went home, returned to work, attended hospital)
- Name and signature of First Aider or HSE Officer

46. WELFARE OF EMPLOYEES

46.1 Compliance with Industrial Practice
Except as otherwise stated in the Contract, the Contractor shall comply with all measures required to provide for the health, safety and welfare of employees, both of itself and where specified of others.
46.2 Toilet Facilities

- Toilet facilities, showers and wash hand basins shall be provided.
- Proper and sufficient lights and ventilation/air conditioning shall be provided where required.
- All toilets and other sanitary facilities shall be kept clean and in working order.

- The floors, walls and ceilings of sanitary conveniences shall be of a finish that can be easily cleaned.
- All sanitary conveniences and washrooms shall have window openings to the outside air, or be provided with ventilation systems which change the air at least six times per hour; the proportion of window surface shall not be less than 10% of the floor area.
- Closets, lavatories, urinals, sinks and showers shall be made from materials which facilitate cleaning.
- Showers and lavatories shall be provided with an adequate supply of water, the floor of the shower shall have adequate drainage and shall be made of material to prevent fungus infections of the feet.

Hot and cold water to all wash basins and showers. Liquid soap in dispensing containers shall be supplied to all communal sanitary conveniences.

- All waste water including floor washing water shall be connected to a disposal drain.

46.3 Water

The Contractor shall ensure that a supply of water for drinking is provided around his work area. The workforce will be permitted reasonable access to water and rest, sufficient to prevent heat stress.

- Drinking water standards shall as a minimum adhere to those described in "Guidelines for Drinking Water Quality - World Health Organization: 1993".
- IFB shall provide sufficient cold potable water to the contractor village.

46.4 The Contractor shall provide adequate wet weather protective equipment and changing/drying facilities.

46.5 Messing Facilities

The Contractor shall make its own arrangements and pay for any messing facilities that it may require for its workmen and for any Contractors it may employ unless otherwise stated in the Contract.

No eating will be permitted within the construction site.

46.4.1 Mess rooms shall have sufficient seating capacity and have the following features:

- Proper construction materials shall be used.
- Floors shall be concrete or be properly sealed to prevent ingress of dirt.
- Sufficient windows shall be provided.
- All doors, windows and other openings shall be protected with fly screens.
- Proper ventilation including fans and/or air conditioning shall be provided.
- Suitable lighting shall be provided.
-Food shall only be consumed in mess rooms.

47. GENERAL RESTRICTIONS

47.1 Intoxicating Liquor and Drugs

No employee shall be permitted to enter the Site under the influence of intoxicating liquor or drugs. Contractor’s employees shall accept that right of the Employer and/or Owner to refuse admittance to or evict them from the Site if they are believed to be under the influence of intoxicating liquor or drugs. The possession or consumption of any drugs, other than for medicinal purposes, or any alcoholic liquor on Site is strictly prohibited.

The Employer will operate a random drug and alcohol testing policy on the contract.

47.2 Conduct

47.2.1 The Contractor shall ensure that all persons under its control shall conduct themselves in a safe, orderly, and seemly manner on the contract and shall not indulge in hooliganism or horseplay.

47.2.2 The Contractor shall take such steps as is practical to make his employees aware of local community requirements, social aspects, and respect of the local culture. All reasonable steps must be taken to minimize the impact of the influx of a large group of Contractors into the area both on the community and environment.

48. SITE NOTICES

- The Contractor shall comply with all official notices on the Site issued by Employer or Owner.
- The Contractor shall obtain permission of the Employer or Owner before erecting any notices or signs.

49. ENVIRONMENT

49.1 The Contractor shall comply with the environmental requirements within the contract HSE Plan and the Worksite HSE Management Plan and any relevant Sections of other procedures, and/or Employer/Owner.
49.2 The Contractor shall not bring any of the following materials onto site:

- PCB (Polychlorinated biphenyls)
- Asbestos
- Add any project specific exclusions

50. REGISTERS

50.1 The following Registers shall be kept on site:-
1. Inspection of Excavations - Contractor
2. Inspection of Lifting Gear - Contractor
3. Inspection of Electrical Power Hand Tools - Contractor
4. Inspection of Pressure Vessels i.e. air receivers - Contractor
5. Persons authorized to change abrasive wheels - Contractor
6. Inspection of scaffolding - Authorised Scaffold Inspector
7. Inspection of Cranes & Other Lifting Machines - Contractors Crane Inspector

51. AUTHORISATIONS
The following person shall be required to carry an Employer authorisation card in their possession at all times during their work.

- Drivers/operators of mobile cranes.
- Drivers/operators of mobile plant (mechanically propelled vehicles).
- Banksmen for mobile cranes.
- Person authorised to change Abrasive Wheels.
- Persons authorised to use cartridge operated fixing tools.
- Drivers of cars, lorries, vans, pickups.
- Fire Watchers.
- Standby Man (confined spaces).
- Permit to Work Requesters/Receivers.
- First Aiders.

52. UNDERTAKING
NAME OF CONTRACTOR
ADDRESS
TYPE OF WORK TO BE CARRIED OUT
EXACT LOCATION OF WORK WITHIN PROJECT PREMISES
I/We acknowledge that I/we have read the foregoing Health, Safety & Environmental information. I/we undertake and agree that my/our employees shall at all times comply with relevant legislation and applicable Health, Safety & Environmental procedures and instructions.
SENIOR SITE MANAGER
NAME (BLOCK CAPITALS)
SIGNATURE
POSITION IN COMPANY DATE
SENIOR SAFETY SUPERVISOR
NAME
SIGNATURE
DATE
Notes:
1. This undertaking must be signed by the Contractor's Representative. It must be returned to the Employer Site HSE Officer with a copy to the Employer's Construction Manager, before commencement of work.
2. This undertaking is only valid for the duration of the particular contract for which it was signed. Any subsequent contracts require a renewal of the undertaking.

Appendix 1



(T+) Very Toxic



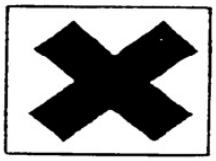
(T) Toxic



(C) Corrosive



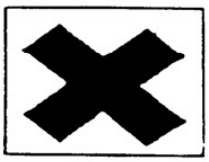
( ) Radio Toxic



(Xn) Harmfull



(N) Dangerous To The Environment



(Xi) Irritant



(E) Explosive



(F+) Flamable



(F) Highly Flamable



(O) Oxidising